DEVELOPING AND ARTICULATING A PEDAGOGY OF PHYSICAL EDUCATION TEACHER EDUCATION USING MODELS-BASED PRACTICE

by © Kellie M. Baker

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Abstract

As teachers and researchers of teaching, teacher educators are essential to education reform. Yet, what is known and understood about the ways in which teacher educators develop their personal pedagogies of teacher education using innovative practice is under-researched. In my research, I used self-study of teacher education practice (S-STEP) methodology to examine the development and articulation of my personal pedagogy of physical education teacher education (PETE) using innovative practice in the form of Models-Based Practice (MBP). I focused specifically on teaching pre-service teachers about and through four pedagogical models: Teaching Personal and Social Responsibility, Cooperative Learning, Peer Teaching, and Teaching Games for Understanding. Participants included me as the teacher educator-researcher and nine pre-service teachers (PSTs) enrolled in three distinct PETE courses. Over the course of 18.5 months, the following data were gathered: a reflective teacher journal, 79 annotated learning plans, course artifacts (e.g., syllabi), participant and non-participant observations, 27 PST individual interviews, two PST focus group interviews, and PST work samples (e.g., 16 PST reflective writing assignments). I used a deductive approach to map concepts from occupational socialization theory and pedagogy of teacher education theory onto the data. The main findings included: (a) implementing MBP in PETE is complex and fraught with challenges, (b) developing teacher education practice is a multi-layered and problematic undertaking, (c) PSTs' voices are essential in developing deeper and richer understandings of teacher educator practice, and (d) the development and articulation of principles of practice and a pedagogy of teacher education have fundamental implications for both the teacher educator-researcher engaging in S-STEP but also for other teacher educators. My research findings offer insights into how

principles of practice and a pedagogy of teacher education might be examined, developed, and shared for use by other teacher educator-researchers. In addition, my research builds on the limited understanding of MBP implementation and influential factors that contribute to the challenges that teacher educators face in its enactment in PETE. Findings from my research also build on the crucial role of interaction in S-STEP by establishing the value of PSTs as *critical contributors* in the development of teacher educators' personal pedagogies.

Dedication

In loving memory of my mother, Linda, who modelled the value of being a life-long learner receiving her high school diploma while I was completing mine.

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CL	Cooperative Learning
MBP	Models-Based Practice
OST	Occupational Socialization Theory
PE	Physical Education
PETE	Physical Education Teacher Education
PSTs	Pre-Service Teachers
REC	Recreation
S-STEP	Self-Study of Teacher Education Practice
T&L	Teaching and Learning
TGfU	Teaching Games for Understanding
TPSR	Teaching Personal and Social Responsibility
UCR	University College of Riverview

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Chapter 1 - Introduction

The prospect of working as a full-time teacher of teachers (i.e., teacher educator) filled me with energy and a renewed hunger and appetite to learn and know more about the field of teaching and teacher education. It took some time for me to eventually acknowledge that these feelings represented a desire to begin the transition from K-12 teacher–a professional role I had filled for 17 years–to teacher educator. But the desire to begin the transition brought with it the question of *how*: How does one go about becoming a teacher of teachers?

Given my personal and professional circumstances and contexts, I felt that the first step was to embark on an interdisciplinary PhD. However, I had doubts from the beginning:

> Busy today. I want to journal, and I know it's important…but finding the time for everything right now is difficult. I'm sick, I'm tired, family awaits. I have 3 more resource manuals to grade, 41 quizzes, lesson planning for next week. How am I going to fit a PhD in here again? (reflective journal, October 25, 2012).

This reflection made it clear that I needed to find a better way to integrate my development both as a teacher educator and researcher into doctoral studies-better in terms of efficiency and rigour but also in terms of a potential to change how I thought about and went about being and becoming a teacher educator. My soon-to-be supervisor suggested that Self-Study of Teacher Education Practice (S-STEP) methodology was an approach to teaching and research that held promise in meeting both teaching and research expectations as a teacher educator.

As I began researching my teacher education practice using S-STEP, I identified numerous struggles in making meaning out of my teacher education pedagogies, and the research process I was undertaking. I questioned my practice and my research, and the ways

in which both did and did not support pre-service teachers (PSTs[1]) in learning to be teachers. For example, the following reflection demonstrates many of the uncertainties raised through conducting my S-STEP research:

> How does how I feel about what's going on in class affect my action? How does what I do in class reveal what I truly believe? How do my actions and words betray me? What could this possibly mean to others? How can this possibly inform educational practice? How will I be able to share this with the educational community—a vital piece to S-STEP? What makes it [my research on my teacher education practice] of value? (reflective journal, November 17, 2013).

As I put the finishing touches on this dissertation, I continue to reflect on what I have learned and am still learning about teaching teachers from my experiences, those of PSTs, and the literature. As shown in the reflection below, my struggle to identify as a competent teacher educator and researcher continues:

> Each time I reflect on becoming a teacher educator, I am filled with self-doubt. I'm unsure if I can meet the often-competing demands of teacher educator—researcher, teacher of teachers, mentor, theory translator, agency liaison (post-secondary, K-12 school, government, community…). I wonder if there is even a place for the type of teacher educator I am striving to become in the current neo-liberal post-secondary contexts that rely on highly funded research, larger class sizes, and ill-suited online learning to survive (reflective journal, June 15, 2019).

Readers might question, like I did, how these deeply personal reflections and insights might be considered useful, insightful, or resonant with the experiences of others. A growing body of research on becoming a teacher educator suggests that the experiences I have expressed in the vignettes above reflect and resonate with some of the challenges

[1] In order to avoid confusion, the following terms will be used throughout this dissertation:
PSTs (pre-service teachers) = university students who participated in the research as they were enrolled in what is categorized as *K-12 teaching option* courses.
Pupils = K-12 learners

experienced by others. For example, many teacher educators are woefully underprepared to take on their new roles and responsibilities (e.g., teacher of teachers, researcher, undergraduate and graduate supervisor). They report little to no induction, struggling to make the transition from school teaching to teacher education contexts, and feeling both unaware and in many cases unable to perform the complex, multi-faceted work they are expected to do by university administrators (see Berry, 2016; Cochran-Smith, 2003; Loughran, 2006, 2011; Murray & Male, 2005; Smith, 2011; Williams, Ritter, & Bullock, 2012; Zeichner, 2005). If teacher educators are to live up to the expectation of being the "linchpins" of any type of educational reform effort (Cochran-Smith, 2003, p. 1), it is imperative that teacher educator preparation be given more attention in teacher education research and practice (European Commission, 2013; Goodwin & Kosnik, 2013). My research attends to this issue directly, using S-STEP to examine how I developed and articulated a pedagogy of physical education teacher education using Models-Based Practice (MBP). This research places a focus on my preparation and ongoing development as a teacher educator, and through sharing my results, I articulate insights made through my research with others in the teacher education community.

1.1 Putting Teacher Education Preparation at the Forefront of Teacher Education Research and Practice

Becoming a teacher educator is a complex proposition (Korthagen, 2016; Loughran & Hamilton, 2016; Williams et al., 2012). Developing, acquiring, and honing professional knowledge, negotiating sometimes competing roles, and forging a professional identity are some of the challenges associated with becoming a teacher educator (Berry, 2016; Cochran-

Smith, 2003; Loughran, 2006, 2011; Murray & Male, 2005; Smith, 2011; Williams et al., 2012; Zeichner, 2005). Yet, teacher educator professional development and learning remains under-researched and under-valued in Canada and around the world (European Commission, 2013; Korthagen, 2016; Kosnik, Miyata, Cleovoulou, Fletcher, & Menna, 2015; Loughran, 2006; Murray, 2016; Murray & Male, 2005).

This lack of research has led to increased calls over the past 15 years for the systematic investigation of not only what it means to *become* a teacher educator, but also what it means to engage in ongoing *learning* and *development* as a teacher educator (see McEvoy, MacPhail, & Heikinaro-Johansson, 2015; Richards & Fletcher, 2020; Richards & Ressler, 2017; Williams & Hayler, 2016). Teacher educators are engaged in analyzing, unpacking, reframing, and sharing their insights into practice as part of their professional learning and development as teachers of teachers (e.g., Berry, 2008; Bullock, 2012; Casey & Fletcher, 2012; Fletcher, 2016; see Hordvik, 2018; see McEvoy, 2019; see Ovens & Fletcher, 2014; Richards & Ressler, 2017; Russell & Loughran, 2007; see Williams & Hayler, 2016). It is thought that through sharing and exposing personal insights gained from closely examining one's teacher education practice that others in similar positions might learn from these experiences and apply lessons learned to their practices in a variety of contexts (Vanassche & Kelchtermans, 2015). Such an approach has been widely suggested as having the potential to provide insights into the knowledge base of teacher educator professional learning and development, and also informing the creation of formal mechanisms of support for those transitioning into teacher education (Berry, 2016; Bullock, 2009; Casey & Fletcher, 2012; Dinkelman, 2003; Dinkelman, Margolis, & Sikkenga, 2006; Korthagen, 2016; LaBoskey, 2004; Loughran, 2006; Murray, 2010; see Ovens & Fletcher,

2014; Ritter, 2007; Williams & Ritter, 2010; Williams et al., 2012; Zeichner, 2007). However, Loughran (2010) warns of the hazards of engaging in such work, suggesting that, while there is value in sharing personal stories of teacher education practice, there needs to be a shift beyond the personal so that there is an explicit focus given to the ways such stories can generate insight and knowledge into the work of teaching teachers, and thus build the knowledge base of teacher education research.

When teacher educators move beyond stories (Loughran, 2010), and engage in deeply and methodically examining their practice, they can contribute valuable insights into teacher educator professional learning (Williams et al., 2012). For example, the on-going development of a personal *pedagogy of teacher education* was found to be a key factor in the process of learning and developing as a teacher educator (see Williams et al., 2012). The concept of a *pedagogy of teacher education* has become a framework (see Loughran, 2014a) for the study of teacher education practice and development, guiding how teacher educators can engage in personally relevant and robust forms of research. Researchers forging and sharing their experiences of developing a pedagogy of teacher education have shown that modifications to both their professional identity and pedagogy are needed (e.g., Bullock, 2012; Casey & Fletcher, 2012; Fletcher, 2016; Mansfield & Loughran, 2018; Ritter, 2007). Inevitably, they learn and develop as teacher educators and develop motivation to continue exploring the complexities of teacher education practices throughout their careers. This can lead to the adoption and implementation of:

- evolving principles of practice
- an acknowledgement of the socialization influences that impact pedagogical stances

- a better understanding of how to improve teacher education practice
- deeper understandings of both the challenges faced in transitioning into teacher education and the complexity of teacher education
- and while not explicitly stated, inherent in the willingness to take the risk of sharing of their professional learning for critique, the development of an overall greater self-confidence as a teacher educator and researcher (Crowe & Berry; Fletcher, 2016; Korthagen, Loughran, & Russell, 2006; Loughran, 1997, 2006; Richards & Ressler, 2017; Ritter, 2007; Russell, 2007; Russell & Bullock, 2013; Russell, Gaudreault, & Richards, 2016; Vanassche & Kelchtermans, 2016).

Importantly, when this knowledge is shared, others can apply it to their contexts and support not only their work as teacher educators but the ways in which pre-service teachers learn to become teachers (Mansfield & Loughran, 2018; Pinnegar & Hamilton, 2009).

Studying the development of a pedagogy of teacher education (Loughran, 2006, 2014a) using S-STEP methodology is one way that I, and other teacher educators, have put teacher education preparation at the forefront of research and practice. As this chapter is meant to be an introduction to my dissertation research, I explore the concept of *developing a pedagogy of teacher education* and *S-STEP* more deeply in Chapter 2 (Theory and Literature Review) and Chapter 4 (Methodology and Methods), respectively. Given my role as a physical education teacher educator, I now turn to the connected yet distinct field of physical education teacher education (PETE) and consider how a focus on the development of physical education teacher educators is imperative in terms of both research and practice.

1.1.1 The Need for Innovative PETE Practice in a Potential Time of Crisis in the Field of PE

Kirk (2010) claims that physical education has hardly changed at all in the past 50 to 60 years. While there have been calls for change, PE practices in schools have led to

negative influences on pupils through practices such as the marginalization of girls, lower-skilled pupils, and pupils who do not find intense forms of competition personally meaningful (Duffy, 2013; Ennis, 1999; Hickey, 2008; Singleton, 2009; Tischler & McCaughtry, 2011; Wright, 2004). Although these practices have been recounted since at least the 1970s (Kirk, 2010), such practices are not solely in the PE of the past; PSTs in a study by Jung, Ressler, and Linder (2018) recounted their K-12 PE experiences, exposing current programs filled with practices they viewed as harmful such as:

- low-accountability for learning-characterized by a "roll out the ball" approach where pupils engaged in "free time" and were not expected to be responsible for learning
- marginalization — programming that lacked planning and coherence, and marginalized the non-competitive and non-traditional sport-oriented pupils
- over-emphasis on competition
- biased course offering — multi-activity, repetitive programs, fueled by traditional sport interest of teachers.

In fact, despite criticism, the "one-size-fits-all, sport technique-based" (Kirk, 2013, p. 2) multi-activity model appears to be the predominant approach to PE programming internationally to this day (Casey, 2014; Fletcher & Casey, 2014; Kirk, 2010, 2013; Metzler, 2017; Pill, Swabey, & Penney, 2017).

In line with such mounting evidence that some forms of traditional PE practice continue to result in negative and even damaging experiences for pupils to this day, the need for innovative practices in PETE is clear. Among the main challenges in disrupting traditional forms of PE practice are the views, ideas, and beliefs that recruits to physical education teaching (i.e., PSTs) bring with them to their programs. It has been argued

elsewhere that many PSTs value and enjoyed traditional forms of physical education (PE) and believed that such practices are appropriate simply because they enjoyed them while they were school pupils (Curtner-Smith, 2017; Graber, Killian, & Woods, 2017; Lawson, 1983a, 1983b, 1986). If PETE programs are to disrupt and challenge PSTs' views, ideas, and beliefs about teaching and learning (T&L), it is imperative that teacher educators' practice, model, and support innovative practice, and moreover, explain how and why such innovations are necessary in contemporary PE practices. Yet, we know and understand little about how teacher educators implement innovative PETE practice that support the changes needed for contemporary forms of PE (e.g., pedagogical models) (Fletcher & Casey, 2014; Hordvik, 2018). My research aims to add to the limited understandings we have about implementing innovative practice in PETE.

1.1.2 Learning and Developing as a PE Teacher Educator: Models-Based Practice as an Innovative PETE Practice

MBP is an approach to the T&L of PE, whereby pedagogical practice is based on the implementation of multiple pedagogical models. Theoretically, MBP is organized around the implementation of multiple and diverse pedagogical models chosen to support pupils in achieving specific learning outcomes across learning or educational domains (e.g., affective, cognitive, and psychomotor). For instance, in developing personal and social responsibility, the Teaching Personal and Social Responsibility (TPSR) model integrates affective learning and cognitive understandings within a physical activity context. Another pedagogical model familiar to readers outside of physical education, Cooperative Learning (CL), may also be seen as helping teachers prioritize the affective domain as groups of pupils learn with, by,

and for one another in successfully negotiating physical challenges or tasks (Metzler, 2017). In practice, however, examples of MBP implementation in the literature has predominantly taken the form of singular pedagogical models (see Baker, 2016; Casey, 2014; Hordvik, MacPhail, & Ronglan, 2017) and/or hybrid models (see González-Víllora, Evangelio, Sierra-Díaz, & Fernández-Río, 2019). The only empirical analysis of the implementation of multiple models in schools was recently published by Casey and MacPhail (2018). Similarly, there are few examples of MBP research in teacher education (e.g., Baker & Fletcher, 2017; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008). Given the need for examination of the implementation of multiple pedagogical models, MBP in my study refers to the multi-model conceptualization and not the implementation of a single model.

Considered as an innovative pupil-centred approach, MBP has been advocated as one path toward meaningful and sustainable pedagogical and curricular change in light of the flaws identified in dominant forms of PE practice (Casey, 2014; Casey, 2017; Dyson, Griffin, & Hastie, 2004; Kirk, 2010; Lawson, 2018; Metzler, 2017). It is claimed that MBP supports both broad and deep learning (Lund & Tannehill, 2015; Metzler, 2017), as each model has been developed to engage the whole child by offering inclusive, learner-centred, relevant physical activity opportunities that promote achievement of outcomes in multiple domains (Haerens, Kirk, Cardon, & De Bourdeaudhuij, 2011; Metzler, 2017). However, if MBP is ever to live up to its potential, there is a desperate need for research in order to inform practice (Casey, 2014; Casey & MacPhail, 2018; Lawson, 2018). For example, there remains a significant gap in ways that MBP can form the foundation for a pedagogy of PETE practice, and what the enactment of MBP might look like in PETE to enable PSTs to learn about and engage with its complexity.

While there are numerous research articles on the implementation of singular pedagogical models within school-based PE (see reviews by Baker, 2016; Casey, 2014; Harvey & Jarrett, 2014; Hastie, de Ojeda, & Luquin, 2011; Wallhead & O'Sullivan, 2005), Casey and MacPhail (2018) claim that their study is the only example of an empirical study on the implementation of multiple models (CL, Sport Education (SE), and Teaching Games for Understanding (TGfU)). In their research on teacher implementation of MBP, Casey and MacPhail suggest that while there is support for MBP's place in PE reform, a community of practice is needed in negotiating the complexity (e.g., teacher and pupil prior learning, reframing of teaching philosophy, balancing innovative practice with current roles and responsibilities) of adopting new practices such as MBP.

Similarly, within PETE, the research on the enactment of MBP is sparse. One exception can be found in a monograph where researchers from Georgia State University considered both teacher educators' and PSTs' implementation of MBP (Gurvitch, Metzler, & Lund, 2008). Amongst their findings was how central it was to have a PETE faculty (i.e., teacher educators) committed to adopting MBP, as the foundation of the last two years of the PETE program positively affected PSTs' adherence to model implementation (Gurvitch, Blankenship, Metzler, & Lund, 2008). However, while the high level of adherence was considered a promising indicator of future implementation (Gurvitch, Blankenship, Metzler, et al., 2008), the reality was found to be that multiple stakeholders (e.g., demands of beginning a teaching career, pupils, colleagues, administrators, parents) have powerful degrees of influence on beginning teachers' instructional behaviours, such as the likelihood of continued implementation of MBP (Gurvitch & Blankenship, 2008). A decade later, Harvey, Curtner-Smith and Kuklick (2018) were "cautiously optimistic" about their findings

such as quality models-based PETE programs, in combination with changing orientations of PSTs entering PETE, contributing to and strengthening PSTs' teaching orientations (p. 233-234). Fletcher and Casey's (2014) research also focused on the implementation of MBP but provided new insights from the perspective of novice teacher educators. While they intended to examine their teacher education practice, in so doing, they showed that this could not be done without simultaneously considering the development of their personal and professional identities as teacher educators (Fletcher & Casey, 2014). Developing insights into teacher education practice must, therefore, be viewed as intricately intertwined with developing insights into the self-as-teacher educator (Casey & Fletcher, 2012; Fletcher & Casey, 2014). All investigations, regardless of the focus on who was enacting the practice (i.e., teachers, teacher educators, PSTs) or context (i.e., K-12, PETE, K-12 internship), found the implementation of MBP both arduous and complex.

Beyond the complexity and labour-intensive constraints of implementing MBP, there is also some criticism of MBP as the panacea for pedagogical and curricular change in PE. Landi, Fitzpatrick, and McGlashan (2016) caution against the implementation of any one form of PE suggesting that the goal should be to construct "thoughtful, well-planned, and contextually based physical education programs that address a variety of curricular aims" (Landi et al., p. 409). While Kirk (2010; 2013), Casey (2014), and others present possibilities for MBP contributing to such a vision, Landi et al. warn that MBP and particular individual pedagogical models may actually promote decontextualization and lead to the reinforcement of neoliberal priorities in education. While they do acknowledge that individual pedagogical models such as CL and TPSR "might well enrich programs and shift practice in positive ways if they are customized for the context and students" (Landi et al., p.

409), they also reference research that suggests individual pedagogical models can reinforce power dynamics and dominant forms of masculinity (e.g., Brock, Rovegno, & Oliver, 2009; Parker & Curtner-Smith, 2012).

In light of this controversy, the complexity of MBP implementation, the possibilities of MBP as a contributor to sustainable change in PE (Casey & MacPhail, 2018; Fletcher & Casey, 2014; Kirk, 2010), and the limited research on MBP, I engaged in research on my own implementation of MBP in PETE. Taking my role as a teacher educator in educational reform seriously by analyzing and articulating the development of a pedagogy of MBP in PETE represents a contribution to the field by building on limited understandings of this innovative practice and the challenges teacher educators face in its enactment.

Becoming a teacher educator is complex. Researching the process of becoming a teacher educator is also complex. S-STEP methodology supported me in managing the complexities of examining my implementation of innovative practice (i.e., MBP) as I developed and articulated a personal pedagogy of physical education teacher education. In the following section, I provide an overview of my dissertation research.

1.2 Overview of the Purpose and Research Questions, Context, and Role of the Researcher

In this section, I provide a brief overview of the broad aims, purpose, context, and role of the researcher. In Chapters 3 and 4, I delve more deeply into the context of the research and methods and methodology used in the research design.

1.2.1 Purpose

The specific purpose of this research is to examine the development and articulation of my personal pedagogy of physical education teacher education using MBP. While my personal pedagogy is initially of the self and by the self, with its articulation and sharing it has the potential to be of value for the self and others.

1.2.2 Research Questions

From this purpose, I consider the following research questions:

- What do I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding my experiences of teaching and learning as a teacher educator?
- What do I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding pre-service teachers' experiences of their learning and my teaching?
- How does examination of my implementation of MBP in PETE inform the development and articulation of my pedagogy of physical education teacher education?
- How does the development and articulation of my pedagogy of physical education teacher education using MBP contribute to a broader understanding of teacher education practice?

1.2.3 Context: University College of Riverview (UCR)[2]

The research was conducted in one university department in eastern Canada. UCR has several degree options in the areas of Physical Education, Recreation, and Kinesiology. At the time this research commenced, 30 to 50 new enrollments were accepted into the PE

[2] Identifying information such as names of individuals, groups, cohorts, and institutions have been replaced by pseudonyms throughout the dissertation.

program each year (UCR Factbook, 2014). PSTs are required to complete all three of the courses that provided the focus for this study: Movement Concepts, Educational Gymnastics, and Territorial Games. I taught each of these courses in the three academic terms in which the research was conducted. The first two courses (Movement Concepts and Educational Gymnastics) are usually completed before PSTs have experienced their school placement, which typically occurs in the third year of the program. Territorial Games is usually completed after the PSTs go on their first school placement, therefore occurring in the summer of their third or fourth and final year of the program.

1.2.4 Role of the Researcher in S-STEP

Like other forms of qualitative practitioner research, S-STEP researchers share "the assumption that educational quality hinges on the knowledgeability of practitioners" (Vanassche & Kelchtermans, 2015, p. 507) systematically investigating their practices and the contexts in which it occurs (Vanassche & Kelchtermans, 2015). However, S-STEP researchers are not seeking permanent answers to their problems but rather using the knowledge of self in practice (e.g., one's teaching ideas, views, and beliefs as reflected in practice) to reframe understandings about the complexities of professional practice (Casey, Fletcher, Schaefer, & Gleddie, 2017).

In qualitative research**,** data are mediated through a human instrument (i.e., the researcher) rather than through inventories, questionnaires, or machines (Simon, 2011). As a qualitative approach to research, S-STEP researchers position themselves a**s** human research instruments, as insiders (emic perspective) "in the midst of the work and wonderings about the work" (Hamilton & Pinnegar, 2015, p. 182). An emic perspective is a hallmark of quality

S-STEP (Hamilton & Pinnegar, 2015; LaBoskey, 2004). As such, I positioned myself as an insider seeking to generate knowledge about teaching teachers by better understanding my practice through investigating my experiences of T&L about and through MBP as the instructor of four PETE courses.

In order to guard against 'navel-gazing' (Northfield, 1996), or an overly solipsistic perspective, S-STEP researchers are charged with balancing the tension between seeking to improve their teacher education practice and gaining deeper understandings about teacher education in general (LaBoskey, 2004; Vanassche & Kelchtermans, 2015). In addition, it is acknowledged that while there is value in looking deeply at one's teaching and teacher education practice, there is also a responsibility to look beyond the researcher's questions and context (Hamilton & Pinnegar, 2015).

As well as adopting an emic epistemology, I grounded myself in this S-STEP research from a relativist ontology. A relativist ontology is one where multiple socially constructed realities can be formed from shared experiences. This view supports me in looking deeply into my teacher education while challenging the lure of solipsism. To this end, I recognized the importance of reflecting my ideas and understanding upon those of others with whom I was interacting during the research process. Thus, I elicited PSTs' interpretations of their experiences learning about and through MBP with the second of my four main research questions: *What do I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding pre-service teachers' experiences of their learning and my teaching*?

1.2.5 Interdisciplinary paradigms as a possible means to address the research purpose and questions

In recent years there has been increased value placed on multifaceted approaches, such as interdisciplinarity, to researching the messy and complex nature of 21st-century real-world problems (Demharter et al., 2017; Holley, 2015; Jeffrey, 2003). However, there is no one conceptualization of interdisciplinarity (Choi & Pak, 2006; Salter & Hearn, 1997). I draw from a variety of sources (e.g., "Interdisciplinarity," 2019; Nissani, 1995; Pilerot, 2016) to define the interdisciplinary approach to this research. Aligning with the purpose of this research—to examine the development and articulation of a personal pedagogy of physical education teacher education using MBP—the concept of interdisciplinarity was approached as: *thinking across disciplinary boundaries by drawing knowledge from multiple fields to generate new understandings*.

An interdisciplinary perspective to T&L about and through innovative practice in the form of MBP is supported in the literature. Interdisciplinary paradigms have been suggested as especially valuable in PE's reformation and transformation. For example, Lawson (2009) proposes that innovative 21st century PE design would do well to integrate knowledge and ideas from PE and recreation.

Given the potential of an interdisciplinary approach to support the unpacking of complex and messy real-world problems (e.g., teaching-learning processes, MBP as PE reform), it is my responsibility as a teacher educator to develop and research my practice in ways that include interdisciplinary paradigms. As a teacher educator, I also feel it is my responsibility to develop my practice in response to the PSTs in my classes. Recognizing that: (a) not all PSTs will become physical educators and may find themselves turning to

related fields such as recreation; (b) recreation (e.g., intramurals) will likely be a part of PSTs' future professional roles; and (c) classroom teaching may also be a part of PSTs future professional roles, I feel a professional responsibility to use multiple lenses (i.e., physical education, recreation, and education) in the reconsideration and continual reformation of my teacher education practice. In addition, a hallmark of qualitative research, and effective S-STEP researchers, is using ideas and theories from a wide variety of sources to work toward a big picture rather than to find absolute answers (Ovens & Fletcher, 2014; Simon, 2011). I therefore approach my development as a teacher educator from an interdisciplinary perspective that includes PE, education, and recreation.

1.3 Definition of Terms

The following definitions are provided to support the understanding of key terms in the context of my research.

Models-Based Practice (MBP): An innovative approach to the teaching and learning of PE whereby pedagogical practice is based on the implementation of multiple pedagogical models (Casey, 2014; Kirk, 2010, 2013) (see sections 3.4 and 3.5). This stands in contrast to Model-Based Practice (singular), which is the implementation of one model; a common practice in PE and other physical activity contexts, and the approach most commonly reported in the literature.

Pedagogical Model: A research-based framework for pedagogical practice (Jewett & Bain, 1985; Metzler, 2017) that emphasizes the symbiotic relationship between learning, teaching, subject matter, and context (Haerens et al., 2011) (see section 3.4). The pedagogical models reported in this research are: Teaching Personal and Social

Responsibility (TPSR), Cooperative Learning (CL), Peer Teaching[3], and Teaching Games for Understanding (TGfU).

Pedagogy: There are many ways to define pedagogy (e.g., Armour, 2011; Kirk, 2013; Tinning, 2008). The one that bridges the conceptual framework of this research with the examination of my practice is: the irreducible "relationship between teaching and learning" (Loughran, 2006, p. 2).

Pedagogy of Teacher Education: A framework (Loughran, 2014a) for the study of teacher education practice and development that guides how teacher educators can engage in personally relevant and robust forms of research (see section 2.2.2.2). Loughran (2006) identifies three integrated concepts that represent a pedagogy of teacher education: learning about learning, learning about teaching, and teaching about teaching.

Pre-Service Teachers (PSTs): For the purposes of this research, PSTs are defined as university students enrolled in courses that have a focus on learning how to teach K-12 PE.

Pupils: K-12 learners.

Self-Study of Teacher Education Practice (S-STEP): S-STEP is a form of practitioner inquiry, providing methodological and pedagogical guidelines for teacher educator-researchers. Guided by LaBoskey's (2004) characteristics of quality self-study, S-STEP is an approach to teacher education research and practice that takes a critically reflective stance to understanding the complexities of teaching (Loughran, 2004; Ovens & Fletcher, 2014; Vanassche & Kelchtermans, 2015) (see sections 4.2 and 4.3).

[3] Peer Teaching will not be abbreviated so as not to confuse the reader due to other similar and frequently used abbreviations throughout the thesis, in particular, PSTs, PE, and PETE.

1.4 Structure of the Dissertation

Completing a PhD has often been compared to a marathon rather than a sprint. Drawing from this, I use the metaphor of a marathon runner to provide a relatable framework for understanding the process and structure of this dissertation: Years of physical, cognitive, emotional, and social preparation are required prior to the running of the marathon. This is then followed by the challenging race itself, which requires in-action reflection, analysis, and adjustments. After the race, results are again reflected upon, analyzed, and conclusions drawn, leading to decisions about future actions in anticipation of improved performance during the next race. In line with this metaphor, Chapters 1-2 of this dissertation may be thought of in terms of pre-race training that sets the stage cognitively, emotionally, and socially for the research. Chapters 3-4 are the action of the research and site of in-action analysis, reflection, and decision making. Chapters 5-8 then follow with results and accompanying reflection, analysis, and conclusions with the intent of contributing to future improved performance for not only myself, but for use by others.

With this metaphor in mind, this dissertation comprises eight chapters set out as follows:

Chapter 1: Introduction. I provide an introduction and overview of the dissertation intended to support understanding the dissertation as a whole.

Chapter 2: Theory and Literature Review: Learning to Teach Teachers. In this chapter, I situate the research in the literature by reviewing Occupational Socialization Theory (OST) as a framework for studying teachers, PE teachers, and teacher educators and its applications to the development of teachers and teacher educators. I also include literature

on developing a pedagogy of physical education teacher education through reconsidering practice and reshaping identity.

Chapter 3: Research Contexts. I expand on the programmatic, pedagogical, and course contexts within which T&L about and through MBP occurred.

Chapter 4: Methodology and Methods. In this chapter, I include both the methodology (i.e., S-STEP) and methods (i.e., tools and strategies used for data collection and analysis). Within the six sections of this chapter, there is: (a) a restatement of the purpose and research questions, (b) an explanation of the methodological perspectives that framed the study, (c) an explanation of the research design using S-STEP, (d) an in-depth discussion of the research context and participants situated within the study, (e) qualitative methods used to gather data and techniques used to analyze the data, and (f) discussion of trustworthiness and ethical considerations.

Chapter 5: My Experiences as a Teacher Educator Teaching and Learning About and Through Models-Based Practice. The first of the three results chapters, I provide results derived from investigating my experiences of T&L *about* and *through* MBP as the instructor of four PETE courses.

Chapter 6: Pre-Service Teachers' Experiences Learning to Teach Using Models-Based Practice. In this chapter, I provide results on what I learned about my teacher education practice from analyzing and understanding PSTs' experiences learning *about* and *through* MBP.

C**hapter 7: Articulating Principles of Practice Implementing Models-Based Practice.** The last of the results chapters, in Chapter 7, I outline my eight principles of

practice for T&L about and through MBP in PETE derived from analyzing and synthesizes my experiences (Chapter 5) and those of PSTs (Chapter 6) learning about and through MBP.

Chapter 8: Conclusion and Recommendations. In this last chapter, I revisit the research questions and reflect on the importance of the learning resulting from this research.

Chapter 1 Summary

This introductory chapter sets the stage to understand the dissertation as a whole. Followed by a theory and literature review, contexts of the research, methodology and methods, three results chapters and a concluding chapter, the intent is to share the reconsideration and reframing of my practice as I learn to teach teachers. While the notion of *self* figures prominently, the broader intent of this S-STEP, and this dissertation, is to uncover deeper understandings of learning to teach teachers that has meaning for teacher education, PETE, and related fields.

Chapter 2 - Theory and Literature Review: Learning to Teach Teachers

As a novice teacher educator I was challenged by the idea that teaching teachers cannot be reduced to simply modelling the ways I had taught K-12 pupils in the past, as this would not necessarily illustrate to PSTs the complexities involved in making informed pedagogical decisions (e.g., Berry, 2008; Loughran, 2009; Murray & Male, 2005; Williams et al., 2012; Zeichner, 2005). In unpacking the idea that learning to teach teachers is a complex, messy, sophisticated process, filled with uncertainty and perpetual challenges (Berry, 2008; Cochran-Smith & Lytle, 2004; Loughran, 2014b; Schön, 1983; Tannehill, 2016), I had to acknowledge my socialization as a teacher and teacher educator and the impact these processes had on my teaching beliefs, approaches, and actions. I found it unsettling to confront the idea that many teachers' decisions are made on a subconscious level influenced by previous experiences and memories that inform socialization (Voss & Paller, 2009). However, conceptualizing socialization as a two-way process where teachers are both the targets of socialization but also active agents in this process (Fine, Martin, & Sandstrom, 2002; Schempp & Graber, 1992; Zeichner, 1979) ultimately offered me some control and influence over the content and outcomes of the socialization process.

As explained in Chapter 1, the purpose of this research is to examine the development and articulation of a personal pedagogy of physical education teacher education using MBP. In unpacking and articulating the teaching-learning process and knowledge of practice developed by T&L *about* and *through* MBP, I intend to improve my teacher education practice for the benefit of myself as a professional, current PSTs, their future pupils, others on similar journeys, as well as the field of PE and PETE. Therefore, understanding the influence my socialization processes have on my teaching practices is

essential. Occupational Socialization Theory (OST) provides me with a lens to identify socializing forces that impact my teaching views, ideas, beliefs, and, ultimately, my decisions and actions. In this chapter, I review ways in which OST has been used to study the socialization of teachers and teacher educators, and outline ways that OST served as one theoretical perspective through which I gained a deep understanding of my journey from teacher to teacher educator.

I begin this chapter by providing a brief overview of the history of OST. Historically, one of the ways OST has been used is to study the socialization of teachers–demonstrating the influence that experiences from birth through various stages of their career have on their lived experiences. As much of the work using OST has been applied to the study of teachers, I first provide an overview of teacher socialization. I continue the chapter by focusing on acculturation, professional socialization, and organizational socialization theory and literature of PE teachers. In the final section, I turn the focus to the secondary socialization experienced by teachers who make the transition to become teacher educators, including literature on teacher identity formation and developing a pedagogy of teacher education. A summary of this chapter is then provided.

2.1 Occupational Socialization as a Framework for Studying Teacher Educators

Socialization

According to Danziger (1971) and Clausen (1968), the concept of *socialization* was first associated with teaching in the late 1930s; however, it did not gain prominence as a useful theoretical lens to study teachers until the 1970s (Zeichner & Gore, 1990). Since that time, OST has been used to help understand processes through which individuals become

participating members of the "society of teachers" (Zeichner & Gore, 1990, p. 329). OST also gained prominence in PE teacher research over the last quarter-century (e.g., Curtner-Smith, 1997, 2001, 2009; Curtner-Smith, Hastie, & Kinchin, 2008; Lawson, 1983a, 1983b, 1989, 1993; Lawson & Stroot, 1993; Richards, 2015; Richards, McLoughlin, Ivy, & Gaudreault, 2017; Merrem & Curtner-Smith, 2018, 2019; Schempp, 1989; Schempp & Graber, 1992; Stran & Curtner-Smith, 2009; Stroot, Faucette, & Schwager, 1993; Stroot & Ko, 2006; Stroot & Williamson, 1993; Templin, 1979, 1981, 1989; Templin, Richards, Blankenship, Smith, Kang, et al., 2011; Templin & Schempp, 1989; Templin, Woodford, & Mulling, 1982). Recognizing that individuals are active agents able to resist the influence of socializing agents, OST has been viewed as offering a dialectical approach to analyzing PE teacher recruitment and professional socialization (Schempp & Graber, 1992). A definition of OST for contemporary forms of PE research is: "a dialectical theory of socialization into physical education that focuses on recruitment into, training for, and ongoing socialization in school contexts" (Richards, Ivy, Lawson, & Alameda-Lawson, 2018, p. 162). In addition, some initial investigations demonstrated how OST could be used to study the socialization of teacher educators (e.g., Karp & Williamson, 1993; Karp, Williamson, & Shifflett, 1996). Following from original research conducted by Williamson and colleagues, a renewed interest in applying OST to teacher educator socialization has surfaced (e.g., Casey & Fletcher, 2012, 2017; Fletcher & Casey, 2014; Fletcher & Casey, 2016; Richards & Fletcher, 2020; Richards & Ressler, 2016). In the following sections, I provide a brief overview of OST and the study of teachers before delving more deeply into the OST literature associated with teachers of PE and PE teacher educators.

2.1.1 Occupational Socialization Theory and the Study of Teachers

The application of OST to teaching gained prominence with Lortie's (1975) seminal work, *Schoolteacher: A Sociological Study* in which he "outlined a framework for occupational choice and used it to examine the process of recruitment into the profession" (Dewar & Lawson, 1984, p. 19). Lortie suggested that socialization is a lifelong process, beginning long before one gains acceptance into teacher education programs. For example, *acculturation* is the time from birth until the decision is made to become a teacher (Lortie, 1975). During this time, pupils are impacted by the 13 years or more of an *apprenticeship of observation* (Lortie, 1975) in which they are being unconsciously socialized into believing they know what is required for teaching by simply having observed it from the perspective of, and experiences as, a pupil. Observations made about teaching from the perspective of a pupil, however, provide a superficial sense of understanding teaching, a sense that does not give credit to the intricacies and complexities involved in the processes of teaching (Lortie, 1975). During the acculturation phase of socialization, Lortie also suggested that recruits into teaching (i.e., PSTs) develop *subjective* warrants—perceptions of what is it is to be a physical educator and how well they are matched to do that job. Nearly a decade after Lortie's (1975) research, Lawson (1983a, 1983b) applied Lortie's concepts of *acculturation*, *apprenticeship of observation* and *subjective warrant* to analyze PE teacher recruitment and socialization. Lawson's work has since been the most cited theoretical lens through which PE teacher and teacher educator research results have been viewed (McEvoy et al., 2015).

2.1.1.1 Occupational socialization theory and the study of physical education teachers

In the field of PE, OST has been identified as a framework to examine "all of the kinds of socialization that initially influence persons to enter the field of PE and that later are responsible for their perceptions and actions as teacher educators and teachers" (Lawson, 1986, p. 107). Lawson (1983a, 1983b) and Templin and Schempp (1989) drew from Lortie (1975) to develop a three-phase continuum for socialization. These authors acknowledged that socialization is not a linear process. Their continuum has been used extensively over the last four decades of PE research. The continuum offered by Lawson (1983a, 1983b), and Templin and Schempp (1989), consists of acculturation (pre-teacher education), professional socialization (pre-service teacher education), and organizational socialization (assume role of K-12 teacher) (Richards & Ressler, 2016). Such is the utility of the three-phase continuum that it was recently used to conduct a review of the research on PE teacher socialization over the past forty years (see Richards, Templin, & Graber, 2014). In the next three subsections, I discuss each of the three phases.

2.1.1.1.1 Acculturation and the decision to become a teacher of PE

As explained previously, acculturation is the phase of socialization from birth to entry into a teacher education program (Lortie, 1975). As pupils observe their teachers for 13 years or more (i.e., apprenticeship of observation), they are exposed to many teaching practices. However, this exposure is only partial and does not expose pupils to, for example, the decisions a teacher makes in planning, moment-to-moment instruction, or in assessment. Consequently, a highly incomplete understanding of the reasons that underpin teaching decision is likely developed (Lortie, 1975). For example, limited perspectives of teaching

often lead recruits to make decisions about a career in teaching based primarily on the perspectives and practices of their former PE teachers (Vollmer & Curtner-Smith, 2016) and, in the case of PE, also coaches (Curtner-Smith et al., 2008; Templin & Richards, 2014; Volkmann, 2008).

It is here that Lawson (1983a, 1983b) extended Lortie's (1975) apprenticeship of observation and subjective warrant with discussions of PE teaching orientations and coaching orientations. Lawson theorized that PSTs entered PETE with two predominant subjective warrants—teaching orientations or coaching orientations; some PSTs decide to enter PE teaching to teach while others view it with an aim to coach. This suggestion led to an extensive line of research, which has resulted in several important outcomes for the PE profession. For example, prior to 2000, the common finding was that those with positive K-12 learning experiences were more likely to choose to become teachers of PE with the aim to teach (i.e., teaching orientation), while those who connected more strongly to past sporting experiences were more likely to pursue PE teaching as a pathway to coaching (i.e., teacher-coach/custodial/coaching orientation) (Curtner-Smith, 1997; Lawson, 1983a, 1983b). O'Bryant, O'Sullivan, and Raudensky (2000) were among the first to note that more PSTs were entering PETE with teaching orientations. A review of PE teacher socialization literature since 2000 supports the suggestion of a general shift in subjective warrant with more PSTs entering PETE programs with teaching orientations (Pike & Fletcher, 2014). However, attention still needs to be paid to addressing the socialization of PSTs, as the traditional paradigm of PSTs entering PETE as an avenue to coach rather than teach is alive and well, particularly in the United States (e.g., Curtner-Smith et al., 2008; Richards & Templin, 2011; Richards, Templin, & Gaudreault, 2013; Richards et al., 2014).

Research shows that some PSTs are still making the decision to enter PETE based on relationships with PE teachers and coaches (e.g., Vollmer & Curtner-Smith, 2016). However, recent examples of research on acculturation have also shown that PE teachers are sometimes not always the primary influencer on the decision to enter PE post-secondary programs. For instance, with respect to adapted PETE, previous experiences with individuals with disabilities had a more profound effect on PSTs' decision to enter that program than did the influence of their parents, teachers, or coaches (Richards & Wilson, 2019).

This section of my dissertation shows that research on the acculturation phase of PE teacher socialization has led to understanding the importance of recognizing connections between PSTs' apprenticeship of observation, decision to become a PE teacher, and entry into a PETE program, and that these factors should be used to inform PETE practice and programming. In the next section, I discuss the professional socialization phase.

2.1.1.1.2 Professional socialization and pre-service teachers

Following acculturation, PSTs enter the professional socialization phase as they begin PETE programs. It has been shown that the professional socialization phase has limited influence on the beliefs and views PSTs bring with them as they progress through PE teacher education programs, due to the strong influence of the acculturation phase (Curtner-Smith, 1997; Lawson, 1986; Richards et al., 2014; Stran & Curtner-Smith, 2009). With this said, there are also some instances of PSTs being receptive to innovative pedagogical practices (e.g., Gurvitch, Blankenship, Metzler, et al., 2008; Li & Cruz, 2008; Moy, Renshaw, & Davids, 2014; Wang & Ha, 2012; Wright, McNeill, & Fry, 2009). However, many questions remain about how to sustain the influence of innovative pedagogy

experienced during professional socialization as PETE graduates enter school cultures (organizational socialization). The effects of teacher education being "washed out" by school experience has long been an issue raised by socialization researchers (e.g., Zeichner & Tabachnick, 1981) that is yet to be addressed with strong solutions.

One suggestion for influencing the professional socialization of PSTs is to acknowledge that PSTs come to teacher education with pre-existing beliefs and experiences. Teacher educators must, therefore, be willing to co-examine these concepts with PSTs (Schempp & Graber, 1992). Drawing from evidence in the literature, Richards et al., (2014) offered specific suggestions for how teacher educators might support PSTs in reconsidering previous socialization such as acculturation, such as:

- providing on-campus seminar courses grounded in reflection coinciding with progressive induction into schools (Brouwer & Korthagen, 2005)
- engaging in unpacking the influence of PSTs' favourite K-12 teachers (Smith & Schmidt, 2012)
- programming provided by teacher educators who "are perceived as credible, do not coach, closely supervise field experiences, and confront beliefs acquired during acculturation that do not align with program values" (Curtner-Smith, 1997, 2001; Stran & Curtner-Smith, 2009)" (p. 118)
- basing some content in instructional approaches that are similar (or align) with PST's value orientations and subjective warrants, such as Sport Education (Curtner-Smith, 2009)
- designing programs with consistent messaging and approach to teacher education, thereby increasing the likelihood that PSTs will embrace, rather than resist, professional socialization (Curtner-Smith, 1996; Curtner-Smith et al., 2008; Curtner-Smith & Sofo, 2004; Richards & Templin, 2011).

Others have suggested that teacher educators should provide opportunities for PSTs to experience, observe, and participate in alternative approaches to T&L as a way to facilitate openness to innovative practice and influence the professional socialization of PSTs (Lund, Metzler, & Gurvitch, 2008; Moy, Renshaw, Davids, & Brymer, 2016).

Until recently, short-term professional socialization experiences were shown to be predominantly ineffective in sustaining influence on novice teachers' beliefs and practices (e.g., Zeichner & Tabachnick, 1981). Recent teacher education research, however, is shedding light on promising practices for sustained adoption of innovative practices experienced during professional socialization (i.e., PETE) (e.g., Harvey, Curtner-Smith, & Kuklick, 2018). OST provides a valuable lens through which to investigate ways in which teacher education programs can more effectively contribute to the formation of best and promising practices of novice teachers.

2.1.1.1.3 Organizational socialization and in-service PE teachers

This third phase of teacher socialization is marked by PSTs graduating from a teacher education program, becoming a certified teacher, and transitioning into the roles and responsibilities associated with that position. School structures and cultures are said to constrain or enable teachers' life-long learning (Armour, 2006) and, therefore, these factors crucially impact the organizational socialization experienced by teachers (Elliot, Atencio, Campbell, & Jess, 2013). For example, the first to third years have been found to be particularly impactful, with early career teachers experiencing multiple socializing factors such as pupils, families, colleagues including administrators, and others with vested interests in the school community (Richards et al., 2013; Stroot & Ko, 2006). In addition, school

cultures that can be classified as having a custodial orientation have been suggested as washing out the influence that innovative teacher education experiences may have had on early career teachers (Lortie, 1975; Zeichner & Tabachnick, 1981). As well, dynamics in collegial relationships may impact the ways teachers can be active agents in their own socialization (Richards et al., 2014); those who hold positions of power in schools, such as veterans and administrators, often maintain the status quo of the school's formal institutional practices and hidden organizational culture (Lawson, 1989). However, PE program design "directed toward innovative program prototypes and policies specifically developed for the social-cultural, economic, political, and demographic realities-as-challenges of the twenty-first Century" may open up a space for innovative practice of teachers, teacher educators, and researchers (Lawson, 2009, p. 113).

Organizational socialization continues to shape experiences throughout the duration of one's career (Van Maanen & Schein, 1979; Zeichner & Gore, 1990). Left unchecked organizational socialization has the potential to perpetuate the status-quo, taken for granted, marginalizing aspects of PE teaching practice (Elliot et al., 2013). As such, and in line with recommendations from the previous section on professional socialization, in-service teachers should address organizational socialization through reflective practice (Elliot et al., 2013). For instance, reflecting on personal and professional PE experiences and their relevance to curricular innovation may provide insights into how teachers acquired their understandings of PE teaching pedagogies (Elliot et al., 2013). This may work to capitalize on the dialectical nature of socialization and support teachers in influencing the impacts of organizational socialization on their teaching practice.

In this section, I have discussed the application of OST to PE teachers in PETE programs and schools. In the following section, I examine how OST has been applied to the study of teacher educators.

2.2 Occupational Socialization Theory and the Study of Teacher Educators

Applying OST to the study of teacher educators has garnered increasing attention since the 1980s. After some initial investigations that featured teacher educators and, to some extent, their socialization (e.g., Metzler & Freedman, 1985; Mitchell & Lawson, 1986), Lawson (1991) developed a conceptual framework intended to enable and expand our understanding of PE teacher educators (McEvoy et al., 2015). This work has developed momentum since Lawson called for research to examine the role of PE teacher educators in the processes of socialization. While the three-phase OST continuum that had been adopted by scholars in the study of teachers has been applied to the examination of teacher educator socialization (i.e., acculturation, professional socialization, and organizational socialization), Russell et al., (2016) suggested a five-phase continuum as more accurately representing the ongoing socialization of teacher educators. The expanded continuum was identified as being necessary because teacher educators have often been teachers themselves. Therefore, in addition to the three phases of acculturation, professional socialization, and organizational socialization experienced by teachers, teacher educators are said to experience *secondary professional socialization* during graduate studies (Lee & Curtner-Smith, 2011), and *secondary organizational socialization* as they transition into teacher education (Russell et al., 2016).

2.2.1 Secondary professional socialization

Completing graduate studies is a common pathway to becoming a teacher educator. With specific reference to PE, Lee and Curtner-Smith (2011) suggested graduate studies be viewed as a time of secondary professional socialization (i.e., initial professional socialization occurred during undergraduate degrees). Secondary professional socialization, as a fourth phase of teacher educator occupational socialization, is when the:

> culture of academia is shared through a combination of formal (e.g., coursework) and informal (e.g., mentoring relationships with faculty) experiences where current faculty members induct the next generation (Tierney & Bensimon, 1996). This culture includes explicitly communicated expectations as well as unwritten rules that D-PETE [doctoral physical education teacher education] pre-service teacher educators (PSTEs[4]) must learn as they navigate the doctoral education process (Hawley, 1993). Through this process, D-PETE PSTEs are familiarized with the norms and protocols within their respective university and department, as well as their specific discipline (Golde, 1998; Reich & Reich, 2006) (Richards et al., 2017, p. 511).

The complexity of this fourth phase of occupational socialization brings into question the role of doctoral studies in preparing teachers of teachers. Research on doctoral PETE (D-PETE) programs in the United States (US) found that few graduates who are hired as teacher educators have studied teacher education theory and practice (Ward, Parker, Sutherland, & Sinclair, 2011). Similarly, in the United Kingdom, doctoral programs sometimes focus on learning how to be an academic with little attention paid to other roles and responsibilities of a teacher educator (Casey & Fletcher, 2012). Conversely, Casey and Fletcher (2012) described how one of the author's doctoral program experiences in Canada was comprised of explicit structures on how to be a teacher of teachers. Huge variabilities in programming

[4] In keeping with the concept of OST and secondary professional socialization, D-PETE "students" will be referred to as pre-service teacher educators (PSTEs).

like these have also been found to be the norm across programs within the same country, such as the US (Ward, Sutherland, et al., 2011). Comparable findings have added to the call for programs to be restructured in ways that support doctoral students in developing confidence and competence in often competing role expectations (Richards et al., 2017). A need for a significant increase in scholarship on secondary professional socialization (Russell et al., 2016), including the context of D-PETE programming and approaches (Ward, Parker, et al., 2011; Ward, Sutherland, et al., 2011), continues to be identified as instrumental in securing a sustainable future for the field of PE (van der Mars, 2011).

My experiences as a doctoral student concurrently working full-time as a teacher educator adds a unique perspective to the scholarship on secondary professional socialization. For instance, examining my teacher education practice and developing a pedagogy of physical education teacher education of MBP may provide insights not only into D-PETE programming but also into teacher education practice. In addition, I was simultaneously struggling to manage both secondary professional socialization and some parts of secondary organizational socialization as what some might view as a quasi-teacher educator (i.e., working full time teaching prospective teachers, but without a PhD).

2.2.2 Secondary organizational socialization

Novice teacher educators who were practicing teachers are said to go through a "second wave" of organizational socialization (Pike & Fletcher, 2014, p. 12) during what Lee and Curtner-Smith (2011) first coined as *secondary organizational socialization*. Similar to initial organizational socialization experienced as a novice K-12 teacher, secondary organizational socialization is a time of uncertainty, struggle, and isolation

(Austin, 2002; Richards & Levesque-Bristol, 2016; Thorton & Nardi, 1975; Tierney & Bensimon, 1996). In accordance with early research findings conducted during the 1990s (e.g., Karp, et al., 1996; Macdonald, 1993; Macdonald & Tinning, 1995; Williamson, 1993; Woods, Phillips, & Carlisle, 1997), several more recent studies reveal an enduring trend: with little in the way of support structures for beginning teacher educators grappling with their new roles and responsibilities, many experience organizational socialization in the form of perceived and explicit expectations to reinforce and preserve the status quo (e.g., Casey & Fletcher, 2012, 2017; Cazers & Curtner-Smith, 2013; Cutforth, 2013; Fletcher & Casey, 2014, 2016; Richards & Fletcher, 2020; Richards & Ressler, 2016). Furthermore, the lack of support structures to facilitate the shift from teacher to teacher educator contributes to a transition filled with uncertainty as teaching orientations, pedagogical practices, and professional identity must be reconsidered in light of changing roles, responsibilities, and expectations within teacher education (Casey & Fletcher, 2012; Izadinia, 2014; McEvoy et al., 2015; Murray, 2016; Pike & Fletcher, 2014; Smith & Flores, 2019; Tannehill, 2016).

In part to address teacher educator secondary organizational socialization, initiatives such as the International Forum for Teacher Educator Development (InFo-TED) have been developed and operationalized (Vanassche, Rust, Conway, Smith, Tack, et al., 2015; see: https://info-ted.eu/about-us/). Research coming out of the InFo-TED initiative reveals that while teacher educators are a heterogeneous group, most share a genuine passion for learning with and from colleagues and peers as part of learning communities (Czerniawski, Guberman, & MacPhail, 2017). This approach to continued professional development is seen as a "strong contributor to the consolidation of the teacher education profession" (Czerniawski et al., 2017, p. 13). While initiatives like this may represent a promising start

to providing teacher educator development and leadership, many teacher educators continue to negotiate their transition into teacher education in relative isolation, as others have before them (e.g., Berry, 2016; Fletcher & Casey, 2016; Kelchtermans, Smith, & Vanderlinde, 2018; Richards & Ressler, 2016).

2.2.2.1 Transitioning from K-12 teacher to teacher educator: Reconsidering pedagogical practice and reshaping identity

OST theory highlights the complexity of transitioning from K-12 teacher to teacher educator. As discussed in the last section, part of the complexity lies in the lack of support available to novice teacher educators in managing secondary organizational socialization. In addition, it has long been acknowledged that part of the complexity also lies in having to reconsider and reframe teaching practices, as teaching teachers is more complex than simply transferring one's K-12 teaching practice, or providing tips and tricks, to PSTs (e.g., Berry, 2008; Loughran, 2009; Murray & Male, 2005; Williams et al., 2012; Zeichner, 2005).

2.2.2.1.1 Reconsidering pedagogical practice

S-STEP (see Chapter 4, Methodology and Methods for more detail) has led to a drastic rethinking of what is required for strong teacher education practice. For example, several authors have shown that the professional knowledge and skills that were successful in K-12 contexts must be reconsidered in the markedly distinct context of teaching teachers (Berry, 2008; Casey & Fletcher, 2012; Fletcher & Casey, 2014; Korthagen, Loughran, & Lunenberg, 2005; Korthagen & Russell, 1995; Koster, Korthagen, & Wubbels, 1998; Loughran, 2006; Swennen & Van der Klink, 2008). For instance, the skills needed to engage PSTs in examining possible pedagogical approaches to T&L that they might adopt in their

future teaching practice requires distinct professional knowledge, understanding, and skills from those that a teacher needs to support the learning of grade five pupils as they, for example, grapple with the concept of effectively using open space. In other words, "being a teacher educator requires an understanding that goes beyond being a good teacher" (Loughran, 2006, p. 14). Theorizing practice and being able to translate that into the "how and why" of teaching so that PSTs may be exposed to the decisions involved in teaching, challenges to the view that teaching is the simple transmission of knowledge, and innovative approaches to T&L, are just some of the essential elements required by teacher educators and that extend beyond K-12 pedagogies (Loughran, 2006). A framework used to support the reconsideration of pedagogical practice in these ways has been developed by Loughran (2014b) and will be the focus of section 2.2.2.2 of this chapter. In addition to reconsidering one's pedagogical approaches and practices, beginning teacher educators are simultaneously embedded in the process of identity development (Ben-Peretz, Kleeman, Reichenberg, & Shimoni, 2010).

2.2.2.1.2 Reshaping identity

Teacher educator identity formation is not an automatic result of taking on the roles and responsibilities of teacher educator (Goodwin & Kosnik, 2013), but rather, it is cultivated over time as knowledge and skills that support the confident enactment of teacher education practice are developed (Dinkelman et al., 2006; Kitchen, 2005). For those teacher educators who were experienced K-12 teachers, an identity as an experienced veteran teacher must now be reconciled with an identity as a novice teacher educator.

Davey (2013) defines teacher educator identity as the development of "the valued professional self" (p. 6). The development of teacher educator identity forms part of the journey of becoming a teacher of teachers (Dinkelman, 2002) and is a lifelong process shaped through social relations and processes (Berger & Luckmann, 1991). Timmerman (2009) reiterated this viewpoint stating that a central process of becoming a teacher educator is the development of identity because of the close connection between identity and practice. This active creation of identity is continuously evolving as it is "intensely influenced by the political, historical, social and cultural conditions and discourses that operate among and around us" (Hamilton, Pinnegar, & Davey, 2016, p. 206), which are also in permanent states of flux. With respect to socialization into teacher education then, it is not merely the transfer from K-12 teacher to doctoral student to teacher educator and/or researcher, but rather it is the personal and social meanings assigned and attached to the experiences of becoming a teacher educator that contribute to teacher educator identity formation. For example, Dinkelman (2011) contends that:

> Teacher educators shape their identities in the ways that they resolve competing demands on their time, in decisions to work towards continuous programme development, in the choice to trouble their own practices as teacher educators, in taking a stand to resist the 'thin' forms of accountability and other bureaucratically imposed schemes that actually undercut their efforts to better educate pre-service teachers and those pupils they will eventually serve (p. 321).

In reviewing the literature on beginning teacher educators, Murray (2016) also concluded that transitioning into teacher education is accompanied by identity shifts and knowledge changes. She suggested:

- While many teacher educators entered the profession with prior experience in K-12 teaching, a reconsideration of their current pedagogies was required in their new context of teaching teachers

- In reconsidering pedagogical approaches, beginning teacher educators were also engaging in reconsidering their professional identity
- Shifting their practitioner identity as new teacher educators included identifying as a researcher.

In addition to such conclusions being derived from the broader literature on beginning teacher educators, recent attention in PETE research is contributing to what we know and understand about the journey of becoming a PE teacher educator. Teacher educators with prior experience as K-12 teachers are unpacking their pedagogical approaches to teacher education as they transition into PETE (e.g., Casey & Fletcher, 2012; Fletcher, 2016; Fletcher & Casey, 2014; Tannehill, 2016). For example, Fletcher (2016) believes that "examining identity has profound implications for how teachers and teacher educators think about themselves, their role, and their practice" (p. 13); so much so that he recognized the importance of identity as one of his principles of teacher education practice. Fletcher (2016) stated that "the development of identity in teacher education may not be as simple as 'being oneself'; it is a socially constructed process…" (p. 14), highlighting the connection between reshaping one's identity and processes of socialization.

Within the complexity of teacher educator identity formation also sits feelings of professional self-doubt. Some teacher educators experience what is known as imposter phenomenon/syndrome (Clance & Imes, 1978), which is characterized by feelings of self-doubt in their preparedness to meet the teaching and/or research demands of teacher education, accompanied by worries that they would be found out as a fraud or fake (e.g., Bullock & Christou, 2016; Foot, Crowe, Tollafield, & Allan, 2014; Richards & Ressler, 2017; Tannehill, 2016). For teacher educators transitioning from K-12 to a role in a post-secondary institution, this self-doubt is often in relation to preparedness to research (Smith &

Flores, 2019). For instance, making the transition from K-12 teacher to teacher educator made Tannehill (2016) wonder how long it would take her new colleagues to recognize that she was a fake and did not know what she was supposed to know about teaching teachers. Similarly, when Richards began his career as a teacher educator, he identified his vulnerability and source of imposter syndrome as laying in his lack of K-12 teaching experience (Richards & Ressler, 2017). Identifying imposter syndrome as impacting his teacher educator identify formation supported Richards in making a conscious pedagogical decision to strengthen his practice by focusing on the practical experiences he did have into his teaching (Richards & Ressler, 2017). This action, spurred by researching his practice and experiences as a novice teacher educator, was a way for Richards to manage some of his insecurities, furthering his sense of competence as a teacher educator.

As I have discussed in the previous sections, secondary professional socialization is a complex process. However, viewing it as a two-way process necessitates action on the part of the teacher educator. One way in which teacher educator-researchers have been taking a more active role in their secondary organizational socialization, thereby intentionally countering isolation and limited teacher educator development, is by becoming a part of a community of practice: "groups of people who share a concern or a passion for something they do and learn how to do it better as they mutually engage regularly" (MacPhail, 2014, p. 50). Others are turning to collaborative S-STEP to unpack and become active agents in their professional socialization as teacher educators (e.g., Fletcher & Casey, 2016; Richards & Fletcher, 2020; Richards & Ressler, 2016). Both the collaborative aspect of their research and the space to analyze and share their journey to becoming teacher educators provides

self-initiated and focused professional learning and development and begins to fill a gap in the literature on PE teacher educators' secondary organizational socialization.

2.2.2.2 Developing a Pedagogy of Physical Education Teacher Education: A framework to support meeting the challenges of secondary socialization

One of the challenges of transitioning from K-12 teacher to teacher educator is the uncertainty about how teaching teachers is different from teaching young people in schools. Teacher educators can partly address this challenge by engaging in professional learning, particularly in undertaking the task of developing and articulating a personal pedagogy of physical education teacher education. Developing a personal pedagogy of teacher education has been considered an emerging theory (Davey, 2013) and in its infancy as an academic area (Korthagen, 2016) but with promising potential to impact both teacher educators' and PSTs' practices and identities (Loughran, 2014b). This potential impact directly relates to some of the secondary organizational socialization challenges previously discussed in this chapter, specifically, the reframing of teaching practice and identity development. Developing a pedagogy of teacher education has been suggested as a framework (see Figure 1) developed to:

> …illustrate how the development of teacher educators' knowledge and practice of teaching and learning about teaching is intimately tied to: understandings of identity; the challenges and expectations of the teacher education enterprise; and, the place of scholarship as an important marker of knowledge, skill, and ability in the academy (Loughran, 2014a, p. 272).

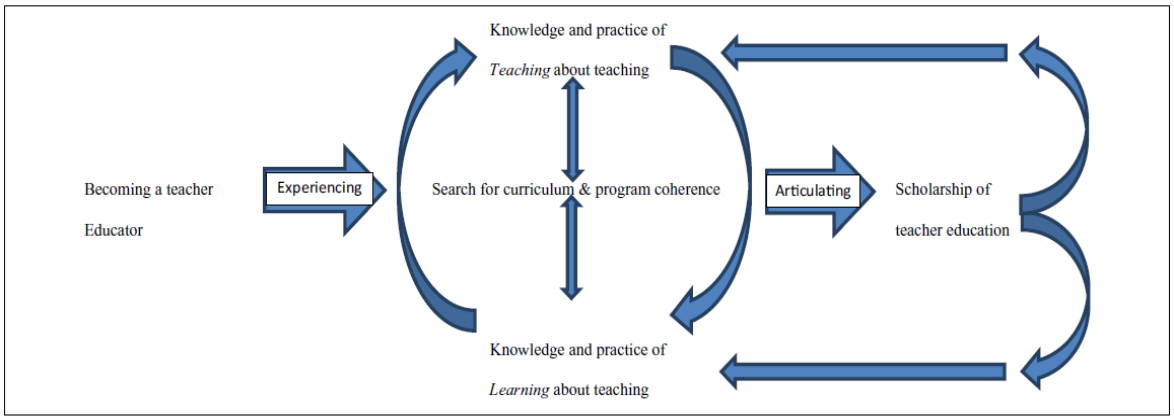


***Figure 1**: A research journey that shapes a teacher educator's professional development.*

A pedagogy of teacher education has been interpreted by many (e.g. Crowe & Berry, 2007; Heaton & Lampert, 1993; Korthagen & Kessels, 1999; Loughran, 2006; Ritter, 2007; Russell & Loughran, 2007) as teacher educators engaged in expertly conceptualizing and enacting theoretical and practical knowledges of the relationship between teaching about teaching, teaching about learning, and learning about teaching (Loughran, 2014b). Developing a pedagogy of teacher education is a framework grounded in teaching practice and reflection that can support the ongoing professional learning of teacher educators (Loughran, 2006; Ritter, 2007). Given the professional learning and development isolation experienced by most teacher educators transitioning from K-12 to teacher education (e.g., Berry, 2016; Fletcher & Casey, 2016; Kelchtermans et al., 2018), it is recommended that teacher educators should be plotting a course for their journey and creating a vision for their ongoing professional learning.

Part of the process for developing a pedagogy of teacher education is forging an identity by learning about, and enacting, professional knowledge of teaching through one's practice (Loughran, 2006). In other words, part of developing an identity as a teacher educator involves the development of a pedagogy of teacher education, and this can be done

(perhaps should be done) in reciprocity with PSTs' development of identity and pedagogies of and for teaching.

The development of knowledge of practice should be of utmost importance to teacher educators for its potential contributions to the improved quality of teaching about teaching and the quality of PSTs' learning about teaching (Crowe & Berry, 2007). Rather than competing agendas, learning about teaching and teaching about teaching should be intertwined (Loughran, 2006). Developing a pedagogy of teacher education provides a framework that integrates *learning about teaching* and *teaching about teaching* in shaping a teacher educator's professional development (Loughran, 2014a). I discuss these concepts in turn in the following sections.

2.2.2.2.1 Learning about teaching

As part of the process in developing a pedagogy of teacher education, learning about teaching is "concerned with the knowledge and practices related to the ways in which students of teaching [PSTs] come to learn from, and then develop as a consequence of, their teacher education experiences" (Loughran, 2014b, p. 5). It would stand to reason then that teacher educators wanting to be situated as an integral and supportive part of PSTs' teacher education experience, must concern themselves with developing their professional knowledge and practice in ways that support the learning and development of PSTs. This requires teacher educators who are committed to better understanding the relationship between T&L in substantive ways (Loughran, 2014a). Teacher educators are advised to examine their practice—the ways in which they approach the teaching of PSTs in relation to promising practices and theories of teacher education—and to make permanent changes (i.e.,

learn) resulting in reframed pedagogy and practice (Loughran, 2014b). For instance, understanding ways in which teaching and learning about teaching can impact PSTs' beliefs is important in enacting practice with the potential of shaping their development and identity (Loughran, 2014a). However, while teacher education literature can support focused examination of learning about teaching, developing a pedagogy of teacher education must also include understandings teacher educators have gained from PSTs' perspectives on learning about teaching (Loughran, 2006) (see Chapter 6: PST's Experiences Learning to Teach Using MBP).

2.2.2.2.2 Teaching about teaching

Teacher educators must resist the urge to submit to PSTs' expectation that teacher education is a time to locate familiar practices observed as a pupil as this risks reducing the complexity of teaching to "tips and tricks" (Berry, 2004; Fletcher & Casey, 2014; Loughran, 2005, 2011; Nicol, 1997). Instead, teaching about teaching must be the time where learning about teaching is enacted. Loughran (2014b) advised that teaching about teaching comprises:

> …a serious focus on pedagogy, conceptualizing teaching as being problematic, making the tacit nature of practice explicit (for oneself and others—especially students of teaching) [PSTs], developing a shared language of teaching and learning, and the ability to articulate principles of practice (p. 275).

For example, teacher educators might articulate their practice by sharing the why of their pedagogical decisions with PSTs (Crowe & Berry, 2007; Loughran, 2006, 2014a), but also encourage PSTs to examine their future practice by doing the same—examining their more than 13 years of acculturation (e.g., apprenticeship of observation) and current professional socialization in developing their approaches to teaching (Loughran, 2007a; Richards et al., 2014; Schempp & Graber, 1992; Smith & Schmidt, 2012).

When a focus on the development of a pedagogy of teacher education is positioned as central to teacher educator professional learning, an emphasis is placed on the development of knowledge of practice. In doing this, teacher educators can become better informed about their approaches to, and learning from, their teaching about teaching (Loughran, 2014b). Developing an intimate understanding of teacher education practice in this way has the potential to impact teacher educators' identity by lessening feelings of insecurity, uncertainty, and vulnerability through the building of a stronger connection to the work of teacher educators and the field of teacher education. My research offers a window into ways that I developed a pedagogy of physical education teacher education of MBP through examining my practice, enacting my developing pedagogies, and, ultimately, coming to identify as a teacher educator.

2.2.2.2.3 Articulating principles of practice implementing MBP in PETE

As already stated in this chapter, developing and articulating an overarching pedagogy of teacher education has the potential to improve the quality of a teacher educator's teaching about teaching and PSTs' learning about teaching (Loughran, 2006, 2014a, 2014b). Parts of my teacher education practice can also be articulated through the development of specific principles of practice implementing MBP in PETE. These principles of practice are "constructed on foundations of learning to teach" (Korthagen et al., 2006, p. 1024) and may also contribute to an overall pedagogy of teacher education (Korthagen et al., 2006; Loughran, 1997).

Since principles of practice are the articulation of one teacher educator's "beliefs, values, and actions that shape their practice," they should be thought of in terms of

suggestions (Fletcher, 2016, p. 347) (rather than rules) that might be used by others. Providing guidance in the form of principles of practice implementing MBP in PETE is important to the field of PE since MBP has been suggested as a possibility to provide a sustainable future for PE; however, there remains little in the way of research support to offer suggestions of "how" (i.e., Baker & Fletcher, 2017; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008). In addition, sharing my principles of PETE practice can contribute to the limited examples available (e.g., Berry, 2008; Bullock, 2012; Crowe & Berry, 2007; Fletcher, 2016; Korthagen et al., 2006; Loughran, 1997; Russell & Bullock, 2013) for teacher educators to access to guide their practice.

Chapter 2 Summary

There is no finality to socialization; it is a life-long process. Likewise, *developing* as a teacher educator is an on-going process of learning about how to teach about teaching through sustained inquiry into practice (Loughran, 2011; Ritter, 2009). Understanding the processes of socialization that influence ideas, views, beliefs, and actions, thus, is essential in teacher educator professional learning and development. Being able to recognize socializing factors that exist in our professional lives better prepares teacher educators to "contest, modify, and refuse formal socialization mechanisms structured to achieve someone else's preferred outcomes" (Lawson, 2017, p. 247). Conversely, it would be reasonable to state that deepening an understanding of teacher and teacher educator socialization might also support the identification of those socializing influences that may positively impact teachers' and teacher educators' teaching approaches.

Occupational socialization offers an appropriate lens through which to analyze both my experiences T&L, and those of PSTs learning about and through MBP. Through my research, I intend to unpack and analyze my developing teacher education practice and pedagogies, and the processes of identity formation. Results from such examination may provide new or corroborating data and results that help contribute to a broader understanding of teacher educator socialization and development.

In the next chapter, I provide detailed descriptions of the contexts in which I formed my pedagogy of physical education teacher education. In doing so, I intend to support the reframing of my teacher education practice and provide a window into the development of my pedagogy of physical education teacher education for those reading my research.

Chapter 3 - Research Contexts

For the development and articulation of my personal pedagogy of physical education teacher education using MBP to be understood and subsequently critiqued by the reader, it is imperative to provide a rich description of the contexts in which the T&L took place. Offering an intimate understanding of the context of the inquiry serves to provide others with insights and understandings that may be applied to their context of teaching practice (Baumann, 1996; Clandinin & Connelly, 1995; LaBoskey, 2004; Loughran, 2004; Pinnegar & Hamilton, 2009; Vanassche & Kelchtermans, 2014). This chapter is separated into four sections that expand on the contexts within which I implemented MBP in PETE. In section one, I provide an overview of PE in the geopolitical context of the research. I then provide the programmatic context of the study and situate my teaching about teaching and PSTs' learning about and through MBP within teacher education in section two. This is followed by section three in which I expand on the pedagogical context of MBP as a possible avenue for a sustainable future for PE, including a brief overview of each of the four pedagogical models that were implemented as part of this research. In section four, I describe the course contexts in which MBP was implemented by situating the individual pedagogical models within the four teacher education courses that provided the overarching context for the research.

3.1 Physical Education in the Geopolitical Context of the Research

This research was undertaken in the distinct geopolitical context of Eastern Canada. In this section, I will provide a brief overview of education in Canada before turning the focus to PE in Canada, Eastern Canada, and provincial context.

While education in Canada is overseen by all levels of government–federal, provincial/territorial, and local–education is within provincial and territorial jurisdiction resulting in some differences between the education systems in each province and territory (Government of Canada, 2017). For example, education is mandatory for pupils up to the ages of 16 to 18, depending on the province or territory. With specific reference to PE, there are similarities across the country in terms of curricular development and implementation such as traditionally focused student [pupil] outcomes prioritize skill-based sport and fitness experiences at the expense of other content areas like dance and gymnastics (Kilborn, Lorusso, & Francis, 2016; Randall, Robinson, & Fletcher, 2014; Thomson & Robertson, 2014). In addition, disparity in programming such as time allotments, preparedness of teachers, and access to facilities and equipment is common (Kilborn et al., 2016; Randall et al., 2014; Thomson & Robertson, 2014). Similarly, PE in Eastern Canada is characterized by traditional sport and games-based experiences with little to no reference of alternative curriculum models, has limited weekly instructional time, and is taught by teachers with highly varying degrees of qualifications, interests, and experiences in teaching PE (Randall et al., 2014).

As a province in Eastern Canada, the K-12 provincial PE curriculum[5] content in which this research took place is in line with regional and national PE curricula. Organized around physical activity themes, provincial K-12 PE curricula are weighted toward games and sport (e.g., games, individual/partner games/activities, sports lead-ups, court/field

[5] Due to ethical issues around anonymity for my research participants, I will not cite the specific provincial curriculum document but acknowledge that references are made to specific ideas within that document within this dissertation.

games/activities, fitness, etc.), but also provide opportunities for other movement experiences (e.g., rhythmic, gymnastics, alternative, and leadership/cooperative). With respect to specific outcomes, provincial PE curricula focus on the whole child. The grades 1-6 curricula are categorized using the three domains of *in movement*, *about movement*, and *through movement* whereas the more recently developed Kindergarten and grades 7-12 curricula are organized around the three educational domains of *Moving and Doing (Psychomotor), Understanding and Applying (Cognitive), and Cooperation and Responsibility (Affective)*. Physical Education is mandatory from grades K-9, with only two further PE credits are required for high school graduation. While there are instances when PE is taught by a generalist teacher, such as in small schools or rural communities, most teachers of PE are considered specialist as they are required to have completed degrees with a major in PE (J. Elkins, personal communication, August 15, 2017).

3.2 University Context

The University College of Riverview (UCR)[6] is one of the largest universities in Eastern Canada (Wikipedia, 2019). It is located in an urban centre with a metro population exceeding 200, 000 (Statistics Canada, 2019). UCR is a multidisciplinary institution offering more than 100 certificate, diploma, undergraduate, graduate, and postgraduate programs, online and across four campuses, to students from over 100 countries (UCR, 2019a).

As the sole provider of PETE in the province, it can be assumed that much of what is taught in provincial K-12 PE in schools is reflective of what is taught, or at least what is

[6] Identifying information such as names of individuals, groups, cohorts, and institutions have been replaced by pseudonyms throughout the dissertation.

advocated for in PETE at UCR. While OST literature suggests much of PETE might be washed out, there remains the distinct possibility or potential of change in PE in this province residing in changes in the PETE programming at UCR. Thus, it is imperative that innovative PE practice be modelled, explained, and critiqued at UCR.

3.3 Programmatic Context

The UCR Department, in which this research was conducted, offers several degree options. Specifically, post-secondary students can obtain degrees in PE, Recreation (Rec), and Kinesiology. The following reflects UCR's enrollment and graduation for the years leading up to and including data collection (i.e., 2011-2014):

- Approximately 350 post-secondary students are admitted to the various UCR programs per year (e.g., PE, Recreation, Kinesiology) (UCR Factbook, 2014).
- The PE *teaching option* degree can be considered under the umbrella of a PETE program given that courses PSTs are required to take as part of the degree are focused on learning to become teachers who work with Kindergarten to grade twelve (K-12) pupils in school settings and the degree conferred is listed in the university Factbook as "Physical Education (Teaching)" (2014).
- There were 35, 48, and 30 PE (Teaching) degrees conferred in 2012, 2013, and 2014 respectively (UCR Factbook, 2014).

When the study was conducted, UCR's physical education degree was described as containing "courses in the fundamentals of PE as well as courses in curriculum planning, teaching methods, and pedagogy relevant to PE curricula for various grade levels" (UCR, 2019c, para. 4). In addition, as part of the PE teaching option degree program, PSTs must complete a primary/elementary PE methods course, which includes a six-week teaching placement in local primary/elementary schools. This provides pre-service teaching experiences with Kindergarten to grade 6 pupils, is guided by a cooperating in-service teacher, and is evaluated by both the cooperating teacher and UCR course instructor.

Throughout their degree, PSTs are also required to be involved with physical activity-based programs that target preschool children and those with physical and cognitive disabilities.

This overview provides an introductory understanding of the geopolitical, university, and programmatic context in which the research took place. In the following section, I provide a more detailed description of both MBP as a pedagogical innovation and the four pedagogical models implemented during this study-TPSR, CL, Peer Teaching, and TGfU.

3.4 Pedagogical Context: Models-Based Practice

3.4.1 Rationale

As explained in Chapter 1, MBP is a contemporary critical pedagogical approach advocated as one path toward meaningful pedagogical and curricular change in PE (Bailey, Armour, Kirk, Jess, Pickup, et al., 2009; Casey, 2014; Dyson et al., 2004; Kirk, 2010; Lawson, 2018; Metzler, 2017; Metzler & McCullick, 2008). Yet, even though research on the implementation of MBP may well have implications for both PE and PETE, it remains under-studied (Casey & MacPhail, 2018; Lawson, 2018). Claims of MBP as a possible sustainable future for PE, combined with a lack of empirical evidence and questions about MBP as a full-scale approach to PE (Landi, Fitzpatrick, & McGlashan, 2016), formed part of the motivation and justification for situating my S-STEP inquiry within the pedagogical context of MBP.

3.4.2 MBP as a potential avenue for change within PETE at UCR

Earlier in the chapter, I discussed PE practice in Eastern Canada as traditional in that sport and games were prioritized (Randall et al., 2014). From my experiences in multiple provinces in Eastern Canada as a K-12 pupil, post-secondary undergraduate student, PST,

graduate student, teacher of PE, and PE teacher educator, this rings true, despite some individual or small groups of teachers and teacher educators exemplifying innovative practices. If PE is to move forward and to be relevant to learners, it is imperative that change occurs and is modelled through PETE. MBP offers the potential for sustainable change at UCR because it aligns with UCR's vision, mission, and values such as innovation, being leaders in physical activity and related fields, and inspiring knowledgeable and reflective life-long learners (UCR, 2019d). As well, UCR's 2013/2014 course descriptions repeatedly emphasize beliefs and approaches in line with MBP, such as learning opportunities that employ "a number of teaching methods" that emphasize "the language and practice of the conceptual approach" (UCR, 2019b). UCR is, consequently, a suitable context for challenging the perpetuation of a traditional PE as sport-technique, multi-activity, short duration, teacher-centred, "one-size-fits-all" approach to PE (Kirk, 2013, p. 38) which "hinders the promotion of the physically active life" (Goodyear, 2015). The implementation of MBP provides opportunities for deeper learning of PE content through student/pupil-centred approaches, which address outcomes across multiple educational domains (i.e., psychomotor, cognitive, affective) (Metzler & McCullick, 2008) and has been found to increase the likelihood that pupils will engage in a physically active life (Bailey et al., 2009).

3.4.3 A description of four pedagogical models used in the research

As explained in Chapter 1, MBP is an approach to the T&L of PE, whereby pedagogical practice is based on the implementation of multiple pedagogical models. The four models I used were TPSR, CL, Peer Teaching and TGfU. In the following sections, I

provide descriptions of the main characteristics and principles of each of these pedagogical models.

3.4.3.1 Teaching Personal and Social Responsibility

TPSR provides a set of ideas that have grown out of an attempt to help youth take more responsibility for their social development rather than succumbing to external forces that are not in their best interest (Hellison, 2011). Dr. Don Hellison initially "developed this model through his direct experience working with at-risk youth" (TPSR Overview, n.d., para. 1) for implementation within PE settings; however, TPSR has most commonly been researched within physical activity-based recreation programs (Blezien, MacKenzie, & Wright, 2013). Any PE content would provide an appropriate context for the implementation of TPSR (Metzler, 2017); however, the choice of content must be based upon participants' personal and social responsibility as a group of learners. For instance, choosing PE content with implements such as bats, racquets, or hockey sticks is appropriate for participants who are consistently showing respect for others, but perhaps not for participants who have yet to demonstrate consistent personal and/or social responsibility (Metzler, 2017). In this case, using TPSR to support participant development of personal and social responsibility through physical activities might be most suitable for PE content areas that require smaller, softer implements leading toward the use of larger and harder implements as levels of personal and social responsibility are developed.

Founded on the view that physical activity contexts are ripe with opportunities for young people to learn and practice how to be responsible for self and others, the primary purpose of TPSR is to help youth assume more personal and social responsibility within and

beyond programs (i.e., school, home, community, society in general) by embedding TPSR ideas and strategies into physical activity experiences (Hellison, 2011). Demonstrating the power of the affective domain, Rink (2006) states, "unless teachers address affective goals in their programs, students [pupils] may be skilled and may even be knowledgeable but may choose not to participate" (pp. 6-7). Curriculum time while using TPSR should consequently be devoted to the explicit teaching of affective goals such as teamwork, cooperation, and respect for self and others (Heidorn & Welch, 2010; Light, 2012). A deeper understanding of how these environments are created is of utmost importance in the design and implementation of effective personal and social responsibility within teacher education contexts such as PETE.

Implementing TPSR in line with its goals, core values, and strategies support the creation of environments where personal and social responsibility can be fostered. Although TPSR is most commonly represented as a five-level model, it was originally designed as a means to increase the potential for sharing, not as a rigid structure. In fact, the current TPSR Alliance group are more commonly using the word *goal* to refer to its stages rather than *level*, in part to recognize that on any given day we may move between levels and that levels are not meant to be purely developmental (i.e., you can only go to level 2 once you've *passed* level 1 (S. Beaudoin, personal communication, January 8, 2018). Hellison (2011) himself acknowledged that a rigid framework has the potential to "reduce the humanity by overlooking the idiosyncratic zigzag nature of the educational process" (p. 17). Hence, although currently represented by a five-level framework, TPSR should be thought of in terms of its basic or core values, ideas, and implementation strategies. In this way, the five levels are social constructions and can be modified in a variety of diverse ways depending

on the contexts in which the model is applied, as long as the underlying principles of TPSR are honoured (Hellison, 2011). Nevertheless, at present, the five-level model (presented as follows) represents the values and ideas of TPSR and should be highlighted when attempting to gain an understanding of its framework:

> Level I: Respecting the rights and feelings of others: attempting to counter socially destructive attitudes, values and behaviours
>
> Level II: Self-Motivation: effort and cooperation resulting in positively experiencing program content
>
> Level III: Self-direction: goal setting toward taking on more responsibility for personal well-being
>
> Level IV: Caring: helping, compassion, sensitivity, responsiveness and leadership
>
> Level V: Transfer *outside the gym*: application of behaviours in multiple settings (Hellison, 2011; Responsibility Levels, n.d.).

In addition to the five levels, TPSR's core values of developing personal and social responsibility are *putting participants first, human decency, self-development, and a way of being* (Hellison, 2011). These core values are promoted through the cultivation of decision-making processes by providing young people with opportunities to share their beliefs and knowledge, thereby acknowledging that they know things that program leaders do not (Hellison, 2011). Therefore, it is critical that participants apply their intimate and personal knowledge of their world to decision-making. This process is more authentic and ultimately more likely to transfer outside of the program, which is the ultimate goal of TPSR (Hellison, 2011). The cultivation of decision-making and an acknowledgment that participants bring their previously constructed knowledge to the program highly aligns with constructivist

theories of learning and problem-based learning. Figure 2 presents a synthesis of the major components of the TPSR model (see Hellison, 2011; Martinek & Hellison, 2016).

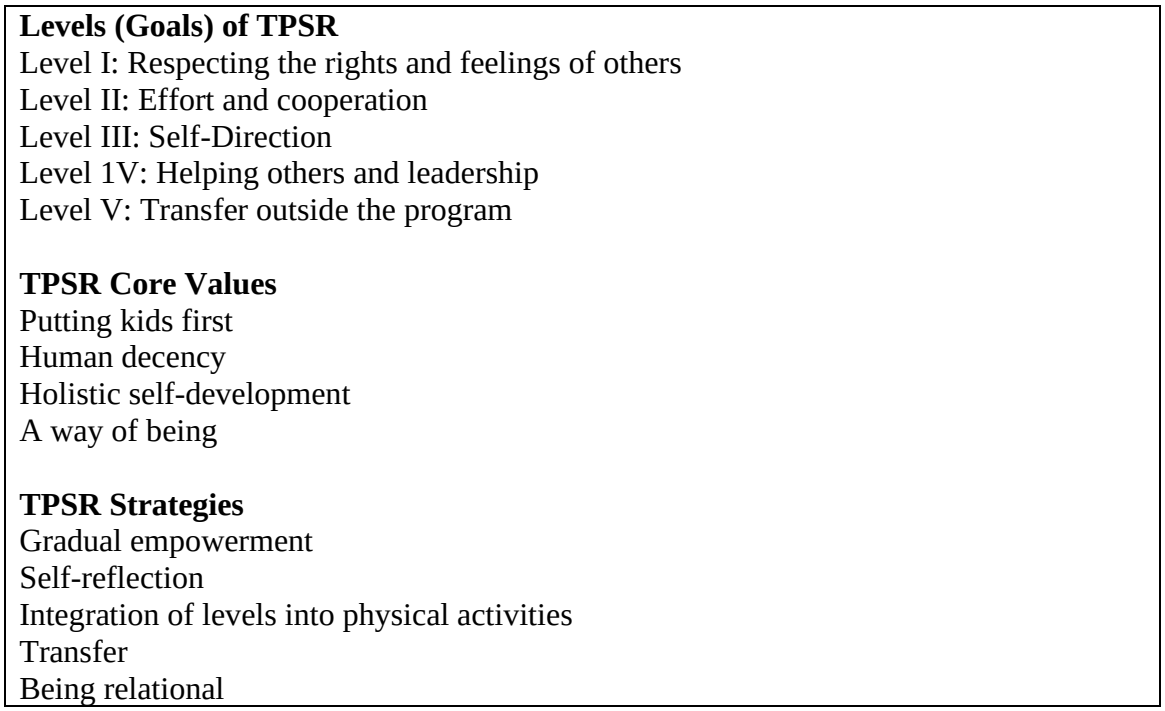


Figure 2*: Teaching Personal and Social Responsibility Goals, Core Values, and Strategies.*

Another aspect of the TPSR model that supports implementation is the five-part TPSR lesson format. First, *Relational Time* with the teacher/leader and other participants occurs prior to the activity beginning and builds a welcoming atmosphere. Second, and further supporting the development of community, the time prior to activity beginning incorporates an *Awareness Talk* focused on developing personal and social responsibility. Third, *Physical Activity* time is an opportunity to put awareness talk into practice. Fourth and fifth respectively, times for *Group Meeting* and *Individual Reflection* support the development and transfer of personal and social responsibility within the current lesson, future lessons, and other contexts (e.g., the classroom, lunchroom, playground, home, and community).

As highlighted in this section, TPSR provides guidelines for pedagogy, content, and context through which to develop physical-activity-based personal and social responsibility programs (e.g., PE, recreation, sport teams). Furthermore, TPSR has been validated as an exemplary pedagogical model (Bain, 1988; Jewett, Bain, & Ennis, 1995; Kirk, 1992; Petitpas, Cornelius, Van Raalte, & Jones, 2005; Steinhardt, 1992). For example, in an extensive review of 144 publications, it was shown that TPSR was a powerful pedagogical model in multiple contexts such as recreation, after-school, and in-school programming (Blezien et al., 2013). Studies have established TPSR as a model that helps teachers and pupils attend to the affective domain as an influential humanistic and social development model for PE (Siedentop, 1990), a way to use sport and exercise to promote life skills (Hodge & Danish, 1999), and an effective way to enhance the systematic integration of life skills development within physical activity-based programs (Walsh, Veri, & Scobie, 2012). TPSR is also recognized as an exemplary alternative approach for special populations (Lavay, French, & Henderson, 1997; Siedentop, Mand, & Taggart, 1986), an approach relevant for underserved youth (Siedentop et al., 1986), a model having applicability to diverse settings and contexts (Caballero-Blanco, Delgado-Noguera, & Escartí-Carbonell, 2013), and an alternate approach to discipline problems (Graham, Holt/Hale, & Parker, 1993; Pangrazi & Gibbons, 2008; Rink, 1993). TPSR continues to be implemented and researched through a variety of research designs and methodological approaches (e.g., case study, quasi-experimental; qualitative, quantitative and mixed-methods), in a variety of contexts (e.g., in-school, extra-curricular, recreation), and reaches diverse populations (e.g., socially vulnerable youth, youth from a variety of socio-economic status) (Caballero-Blanco et al., 2013).

TPSR has benefits for both those implementing the model as well as participants learning through the model. For example, a systematic review of the research about TPSR applications in PE contexts found that teachers change their prejudices and preconceptions about at-risk pupils because of the models' focus on relationship building (Pozo, Grao-Cruces, & Pérez-Ordás, 2018). However, despite the strong support in favour of TPSR, it is not the panacea for all that needs improvement within PE or PETE programs. Furthermore, one model cannot meet the learning needs of all pupils nor of a whole program. Hence the need for the implementation of multiple models (i.e., MBP), which will be expanded upon in sections that follow.

Within a TPSR approach, participants are required to "recognize their special role and take responsibility for doing what is needed for the team's success" (Metzler, 2017, p. 395). The same can be said of another pedagogical model, CL. In addition to using multiple models to accurately reflect a models-based approach (plural) rather than a model-based approach (i.e., implementation of a singular model), it is these commonalities, among others as elaborated upon in the following section, that formed part of my decision to use both of these models in one teacher education course (i.e., the Movement Concepts course) for this research. I will now turn the focus to CL, which was implemented in combination with TPSR in the Movement Concepts course, and with Peer Teaching in the Gymnastics course.

3.4.3.2 Cooperative Learning

CL is perhaps one of the most recognized educational models worldwide (Johnson & Johnson, 2018). In addition to implementation within the classroom, there has been an increased presence of CL in PE research in the past decade, being included in Metzler's

(2017) compilation of instructional models for PE and as the subject of several monographs, books, and journal features (e.g., Casey & Dyson, 2016; Dyson, 2019a; Dyson & Casey, 2012). According to Slavin (1990), CL became a pedagogical model through the 1970s and ’80s through the development of “a set of principles and methods” (p. xi), that enabled it to be separated from other collaborative or small-group instructional approaches because it had “common attributes as well as established procedures for instruction” (Metzler, 2017, p. 230). However, it is only in recent years that CL is being viewed as a true pedagogical model. For example, Dyson and Casey (2012) identify CL as worthy of pedagogical model status because it links learning, teaching, content, and context.

Developed from social constructivist theories of learning (Cohen & Lotan, 2005; Dyson & Casey, 2012; Dyson et al., 2004), CL emphasizes pupil-centred and co-constructed learning of engaged, active, and creative learners (Rovegno & Dolly, 2006). As the pioneer of social constructivism, Vygotsky (1978) perceived learning as an interactive and highly social process. Social constructivist theory is based on a set of beliefs or principles such as learning that emerges from the social interaction within a group is greater than that possible by the individual; no one person knows it all; and each of us brings knowledge (e.g., skills, ideas, beliefs) to help deconstruct and reconstruct our knowledge (Light, 2008; Seifert, 2004). These same beliefs form the theoretical basis of CL and, as such, should be prominent within its implementation.

For more than twenty years social constructivist theory has seen growth in research interest and promotion in PE (Azzarito, 2016; Azzarito & Ennis, 2003; Enright, 2013; Kirk & Macdonald, 1998; Light & Fawns, 2003; Rink, 2001; Rink, French, & Tjeerdsma, 1996; Rovegno & Bandhauer, 1997; Rovegno & Dolly, 2006; Rovegno & Kirk, 1995; Zhu, Ennis,

& Chen, 2011). Corresponding with this time frame, there has also been a developing body of research on the theory and practice of CL in PE. For example, based on CL's evidence of effectiveness in contexts other than PE, such as pupils demonstrating enhanced academic knowledge, skill performance, and attitudes toward the learning environment, researchers continue to espouse the promise of CL in PE settings (Bradford, Hickson, & Evaniew, 2014; Dyson, 2001, 2002; Dyson & Strachan, 2004; Grineski, 1996; Kirk & MacPhail, 2002; Metzler, 2017; Rovegno & Kirk, 1995). Indeed, Casey and Dyson (2016) published *Cooperative Learning in Physical Education and Physical Activity: A Practical Introduction*, a text devoted entirely to CL as a research-informed practical way of engaging participants in lifelong physical activity. In addition, an entire issue of a recently released volume of the *Journal of Physical Education, Recreation & Dance* focused on CL in PE (see Dyson, 2019a).

While Casey and Goodyear's (2015) assertion that research on CL within PE is limited holds true, there is a growing body of research on CL in PE that shows it enhances pupils' learning across multiple learning domains and/or contexts (Casey & Goodyear, 2015; see Dyson, 2019a; Dyson & Casey, 2012, 2016; Dyson, Linehan, & Hastie, 2010; Goodyear & Casey, 2015; Huang, Tu, Wang, Chen, Yu, et al., 2017; Lafont, Proeres, & Vallet, 2007; Wallhead & Dyson, 2017). For example, the use of CL as an inclusive pedagogy was found to support the learning needs of elementary pupils with autism spectrum disorder through opportunities to engage closely with one another (Grenier & Yeaton, 2019). Prior to these recent studies, CL had also been shown to be a "powerful instructional format" in PE, its implementation resulting in improvement in both pupil motor skill and the development of social goals (Dyson, 2001, p. 279). Enhanced physical fitness and social interactions

(Grineski, 1989), improvements in pupil social interaction, reasoning skills, interaction, and social participation (Smith, Markley, & Goc Karp, 1997), and social skills (Dyson & Strachan, 2004; Polvi & Telama, 2000), have also been reported results of implementing CL as a pedagogical model. In addition, although further examination is required, there is some suggestion that teachers' implementation of CL supports learners in meeting physical, cognitive, and affective goals (Dyson & Strachan, 2000). More recently, the impact of CL implementation on pupil development in the affective domain specifically has been suggested as one of its most important contributions to PE, and consideration should be given to the potential of CL implementation in supporting social and emotional learning (Dyson, 2019b).

The diversity of CL's application to any group or team context is one of its strengths. Characterized by structured, small (four to six people), heterogeneous groups of participants who learn "with, by, and for each other" (Metzler, 2017, p. 229), CL supports pupils in mastering content (Dyson, Colby, & Barratt, 2016) through tasks that establish the essential elements (Wallhead & Dyson, 2017). The *five essential elements* that make a learning structure truly cooperative are reported in both the wider literature around CL (Antil, Jenkins, Wayne, & Vadasy, 1998; Cohen, 1994; Johnson & Johnson, 1989, 1999, 2009; Kagan & Kagan, 2009; Slavin, 2011), and within PE (Casey & Goodyear, 2015; Dyson & Casey, 2012). These are:

- positive interdependence,
- individual accountability,
- promotive face-to-face interaction,
- interpersonal and small group skills, and

- group processing.

Educators (i.e., teachers, instructors) who understand these five basic elements and develop skills in structuring CL environments are better positioned to "(a) adapt cooperative learning to their unique circumstances, needs, and students [pupils], (b) fine tune their use of cooperative learning, and (c) prevent and solve problems students [pupils] have in working together" (Johnson & Johnson, 1999, p. 71).

Some might say that CL focuses on developing the cognitive domain (i.e., new knowledge) *through* the affective domain (i.e., social interactions) in a structured, interdependent relationship (Cohen, 1994, Johnson & Johnson, 1989, 2009; Kagan & Kagan, 2009; Metzler, 2017; Slavin, 2011). However, in physical activity contexts, psychomotor learning may assume a shared first priority with affective learning, while cognitive learning often becomes the third priority (Metzler, 2017). A literature review by Casey and Goodyear (2015) suggested that four learning domains—affective, cognitive, physical, and social—have been reported as being achieved through the implementation of CL. However, the extent to which they are achieved is still in question due to primarily anecdotal reporting on the affective learning domain and the short duration of investigations (Casey & Goodyear, 2015).

Since teachers should predominantly act in the role of facilitator, or as some have suggested, that of "activator" (see Goodyear & Dudley, 2015), detailed pre-planning is required. Educators using CL have six major role functions: (a) specify the instructional objectives, (b) make pre-instructional decisions, (c) communicate task presentation and task structure, (d) set the cooperative assignment in motion, (e) monitor the CL groups and intervene as necessary, and (f) evaluate learning and processing interaction (Johnson,

Johnson, & Holubec, 1994). As well, the use of organizing strategies must be carefully pre-planned to support the collaborative nature of CL. Some of these include: Student [Pupil] Teams-Achievement Divisions, Team Games Tournament, Team-Assisted Instruction, Jigsaw, and Group Investigation (Metzler, 2017). I have also found the use of CL roles (see Appendix A for one example) beneficial in guiding pupils and PSTs to be both individually accountable and invested and engaged with the group.

The focus on building community, assuming cooperative and collaborative roles, and developing respect, responsibility, and caring during the Movement Concepts course was a steppingstone to the introduction and implementation of additional models. Peer Teaching, the third pedagogical model implemented as part of this study, changed the focus from small group collaboration to a dyadic (partner) relationship between learners.

3.4.3.3 Peer Teaching

The concept of peer teaching can be traced back to the classical Greek period (see Wagner, 1990). A quick internet search reveals that terms such as reciprocal peer teaching, reciprocal peer tutoring, reciprocal peer coaching, and Mosston and Ashworth's (1990) reciprocal learning style are commonly used interchangeably with the term peer teaching. This complicates the task of defining Peer Teaching as a pedagogical model, as does the common use of the term in reference to a widely used pre-service teacher education task where PSTs act as a teacher in mock teaching episodes with their peers who take on the role of K-12 pupil. Because of this confusion in terminology, I have relied heavily on Metzler's (2017) conceptualization of Peer Teaching as a pedagogical model.

One essential characteristic of Peer Teaching as a pedagogical model is that it must feature participants being explicitly instructed on how to provide key instructional operations in assisting other pupils in the learning process (Metzler, 2017). Extending on values, ideas, and implementation strategies from TPSR and CL, the Peer Teaching model intends for pupils to learn with and for each other through a structured interdependent relationship based on the concept of "I teach you, then you teach me" (Metzler, p. 304). Similar to TPSR and CL, Peer Teaching has reported success in a variety of contexts, from adaptive PE to non-physical activity settings (Metzler, 2017).

Because pupils take on both roles described in the model (i.e., tutor and learner), Peer Teaching requires a shift in learning domain priorities. In the context of PE, the tutor's first domain priority would be cognitive, followed by affective/social and then psychomotor, whereas the learner's domain priority would be psychomotor, cognitive, and affective/social, respectively (Metzler, 2017). For instance, in gymnastics, both tutor and learner would be focused on the movement task. However, the tutor would be focused on explanation, observation, and providing feedback, whereas the learner would be focused on moving their bodies to complete the task, which will also require cognitive and social engagement. Participant roles and responsibilities include task presentation and structure, instructional interactions, and some assessment (e.g., checklists). The tutor, with teacher guidance, helps a partner or small group of learners (i.e., pupils) learn a skill or concept. Care and attention must be given to training the tutor, as it is a critical variable in successful reciprocal peer tutoring (Cicero & Lafont, 2007; Ensergueix & Lafont, 2010; Lafont, Cicero, Martin, Vedel, & Viala, 2005).

Using readily available tools such as benchmark sheets and roles and responsibilities sheets (see Appendices A and B) in the planning, implementation, and assessment of models can support successful implementation (Metzler, 2017). For instance, Peer Teaching could be misinterpreted as CL on a smaller scale. However, when roles, responsibilities, and benchmarks for models are compared and used to guide planning and implementation assessment, noticeable differences between the approaches are evident.

Peer Teaching is an approach that helps pupils build relationships, relinquishes the responsibility to pupils and, therefore, provides the teacher with more time to observe and provide one-on-one support and feedback. Thus, Peer Teaching has definite advantages over other models in PE, recreation, and non-physical activity contexts where the instructor would be required to first teach the whole group, then have pupils practice while the teacher spends limited time observing and providing feedback to each individual pupil. However, Peer Teaching's release of responsibility to pupils does require extensive pre-planning, particularly regarding negotiating tutor training and the tutor-learner group working collaboratively-the latter of which could be supported with experiences in CL.

In addition to TPSR, CL, and Peer Teaching, a fourth pedagogical model was implemented as part of the models-based approach of this research. Re-examination of the predominant traditional content of PE—sport and games—was approached by T&L about and through the pedagogical model TGfU.

3.4.3.4 Teaching Games for Understanding

First conceived by Bunker and Thorpe (1982), TGfU is a pedagogical model that focuses on learners developing tactical understanding and competence in games and

gameplay to increase successful participation, support learning in multiple domains (i.e., cognitive, psychomotor, affective), and promote pupils' overall enjoyment of games. As a learner-centred model, TGfU "is intended to provide learners with an understanding of technical and tactical skills necessary to be successful across a wide variety of games and the motivation to continue participation" (Mandigo, Butler, & Hopper, 2007, p. 14). TGfU capitalizes on participants' interest and excitement in playing games, treats knowledge as empowerment, and values transfer of understanding and performance across sports and games (Mitchell, Oslin, & Griffin, 2013). It is an approach to the T&L of "fundamental concepts of team and individual game tactics and strategies that relies ontologically and epistemologically upon pedagogically developed constructivist notions of teaching and learning for its existence and its knowledge base" (Singleton, 2009, p. 332). The constructivist foundations of TGfU assume that when cognitive learning is involved, motor skill proficiency will follow (Metzler, 2017). One way constructivism is embedded in TGfU is through inviting pupils to apply their past knowledge of gameplay to develop personally meaningful understanding and ways of knowing in new game situations (Bell & Hopper, 2000; Butler & McCahan, 2005; Hopper & Kruisselbrink, 2002; Mandigo & Corlett, 2010; Richard & Wallian, 2005; Singleton, 2009). TGfU has, therefore, been suggested as prioritizing cognitive, psychomotor, and affective learning domains, respectively (Metzler, 2017).

Game-centred approaches such as TGfU "have been identified as contributing to the relevance learners found in their physical education lessons, which led to pupils having fun and finding value in physical education" (Beni, Fletcher, & Ní Chróinín, 2018, p. 601). In addition, deeper understandings of possible and effective decisions, strategies, and tactics are

gained by pupils exploring tactical and strategic decisions players make as they participate in games (including sport) (Butler, 2013; Vollmer & Curtner-Smith, 2016). In this way, it is claimed that the game acts as the teacher, while the teacher assumes the role of facilitator by designing contexts and situations that provide challenge; expertly observing; and incorporating focused questioning (Butler, 2013; Butler, Storey, & Robson, 2014; Dyson et al., 2004; Griffin & Butler, 2005; Hopper, 2007). With the leader acting as facilitator, it is the participants who make their own adaptations in order to maximize the level of challenge and fun (Ophea, 2014).

A major feature of TGfU is the transferability of concepts from one sport or game to the other and across games categories. This conceptual or thematic approach groups games into categories based on common tactics. The categories are target (e.g., archery, curling), striking/fielding (e.g., cricket, baseball), net/wall (e.g., badminton, squash), and invasion/territorial (e.g., ultimate Frisbee, water polo) games (Mitchell et al., 2013). In recent years additional categories that have also been suggested are *racing games* (e.g., canoe-kayak, cycling) (Physical and Health Education Canada, 2019) and *individual pursuits* (e.g., yoga, gymnastics, athletics) (Ophea, 2014). It is suggested that transferring conceptual understandings within and across four game categories leads to gameplay competence rather than isolating rules, skills, and tactics to one sport (Hopper, 1998; Hopper & Bell, 2001; Mandigo et al., 2007). For instance, pupils who understand the concept of defensive positioning in basketball can apply this to a tactically similar game such as hockey and explore contextual similarities and differences between each. For instance, players in possession of the ball move down the field to score points by evading the opponent, who is simultaneously trying to prevent points from being scored. Then, through carefully designed

game experiences and focused questioning, participants explore decisions, strategies, and tactics within gameplay with the goal of guiding a conceptual understanding across sports and games.

In advancing TGfU as a model worthy of implementation, it has been argued that it is *how* sport, games, and activities are presented and delivered to pupils that must change if long term healthy living is the goal (Bell & Hopper, 2003; Bunker & Thorpe, 1982; Holt, Strean, & Bengoechea, 2002; Hopper, 2002; Mandigo & Holt, 2004; Storey & Butler, 2010; Thorpe, Bunker, & Almond, 1986). From this line of theorizing, Bunker and Thorpe (1982) originally developed a six-stage model for games teaching (see Figure 3) partly in response to "the vacuum surrounding any deep understanding of the strategies and tactics of games and sports, characteristic of technically oriented multiactivity curricula" (Vollmer & Curtner-Smith, 2016, p. 75). Later consolidated by Mitchell, Oslin, and Griffin (2006) into a three-stage tactical approach to games teaching (see Figure 4), both represent a process through which the participant builds on previous experiences and understandings to develop a deeper understanding of the game, its tactics and strategies, as well as develop the skills needed to implement the newly acquired conceptualizations.

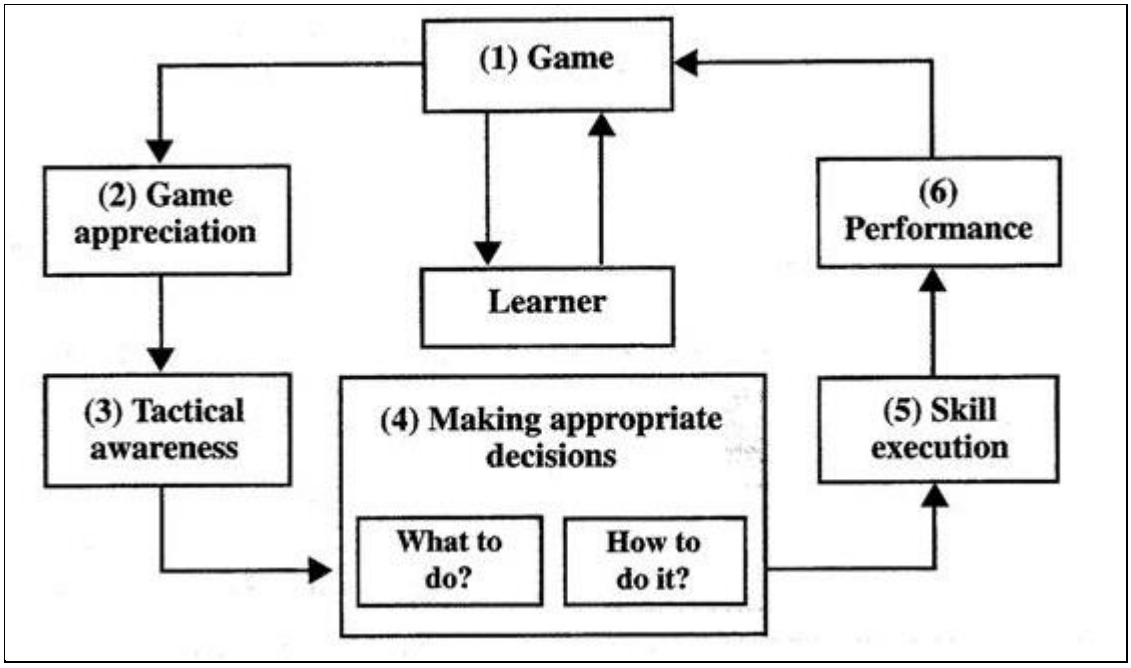


Figure 3*: Bunker and Thorpe's (1982) Understanding Games model.*

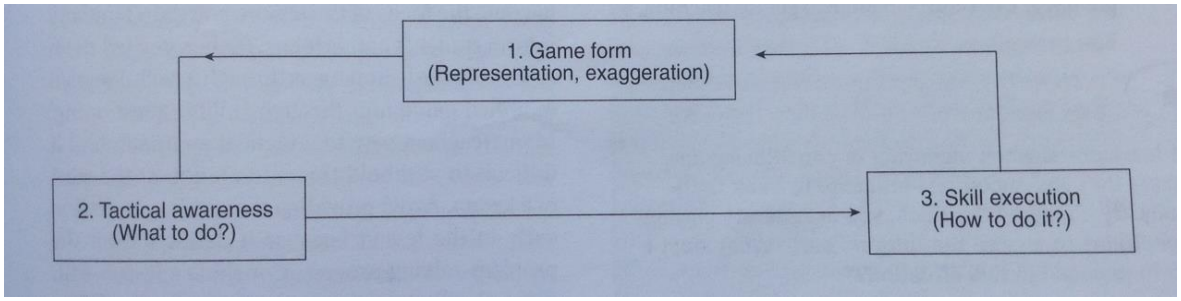


Figure 4*: Mitchell, Oslin, and Griffin's (2006) consolidated three-stage tactical games model to games teaching.*

Bunker and Thorpe's (1982) original conceptualization of TGfU is a six-phase cyclical process (see Figure 3). The teacher and pupils are continually adapting and changing based on the observation of, and participation in, games. The process begins with *Game Form* in which the teacher introduces pupils to a modified game, chosen based on the advanced form of the game but designed to be developmentally appropriate. For instance, when introducing target games concepts and tactics, the number of players, equipment, and/or playing area could be modified to make the game developmentally appropriate. Using

the formalized game of Bocce as an example, pupils may still play one-versus-one, but instead of using a heavy ball that rolls, pupils may send beanbags to a hula hoop. Learners are being exposed to similar concepts and rules of the formal game of Bocce but with modifications that are developmentally appropriate. During the next phase of the TGfU process, *Game Appreciation*, pupils continue to participate in developmentally appropriate modified games as the teacher increases the complexity of the game by adding more modifications and variations (e.g., several sizes and distances of hula hoops that count for more/less points). The next phase, *Tactical Awareness*, involves the teacher continuing to observe gameplay in order to make decisions about game modification and to develop focused questioning intended to support deeper understandings of tactics and strategies within and across game categories (e.g., accuracy is also an important concept in hockey, basketball, badminton, pickleball, cricket, and softball). Questions may include "What are some concepts required to increase success in target games?", "OK, let's focus on the concept of accuracy for now. What does that mean?", "What other games and sports require accuracy?", and "As you continue to play, think about ways you can increase your accuracy and try them out." Continued focused questioning like this is intended to support pupils' transition to the next phase of the process—*Making Appropriate Decisions*—by challenging them to think about what to do and how to do it but also to apply their ideas to increasingly complex gameplay. If the teacher observes that skill development is needed in order to continue increasing the complexity of the games, questioning may also be designed to elicit responses that identify the need for skill development (e.g., stance, grip, forehand roll, backhand roll) as necessary for increasing accuracy. *Skill Execution*, the fifth phase of the TGfU process, may include teachers and pupils designing ways to practice skills necessary

for game success. For instance, in keeping with the example of the target category and more specifically Bocce, designing a game in which a backhand roll that elicits backward movement of the ball counts for a relatively high amount of points, with additional points for being closest to the target, focuses on backhand roll development. The focus on decision making and/or skill execution in the fourth and fifth phases of a TGfU approach to sport and games, supports success in phase six—*Performance*. At this point, pupils have participated in gameplay, focused questioning, and perhaps skill development in order to participate more successfully in a game that closely resembles the decision making, tactics, strategies, and rules of the formal game. During the Performance phase, the teacher observes pupils' efficiency and appropriateness of tactical and strategic decision-making during gameplay. Based on observations, the teacher may decide to revisit some questioning and modified games or restart the cycle with a new game form and/or focus on a new concept, tactic, or strategy.

Mitchell et al. (2006) developed a consolidated version of TGfU (see Figure 4) known as the Tactical Games Approach (TGA). This process also begins with *Game Form*. Pupils are exposed to a modified game that represents and exaggerates concepts and skills of the formal game. The focus is again on decision making based on the tactics and strategies required for successful participation in the game category and across game categories. For example, the advanced form of basketball is a 5 versus 5, full-court, 35 minute or longer game. With a TGA, pupils may play a 3 versus 3, half-court, 5-minute timed game of basketball. If the tactical problem is *attacking the basket*, the exaggeration and conditions of the game may be baskets scored inside the charge circle are worth three (3), outside the key are two (2), and outside the three-point line score one (1) point. After the initial game,

carefully constructed and focused questioning is used to develop pupils' critical thinking and problem-solving. Like TGfU, these questions are developed based on the teacher's focused observation of gameplay and the targeted concept, strategy, and/or tactic, in the example provided here, on *attacking the basket*. With support from questioning, pupils identify the *Tactical Awareness* concepts (part 2 of the TGA model and process) and/or *Skill Execution* (part 3) they need to practice in order to increase their success in gameplay. Based on responses, a practice task is developed that supports tactical awareness and/or skill development in *attacking the basket* (e.g., a task that focuses on passing to the post). This is then followed by replaying the initial game with the same, less, or decreasing conditions in order to apply decision-making skills and skill execution.

With an emphasis on deepening understandings of the tactics and strategies inherent within and across game categories, and the development of skills within and across games and sport, TGfU seems a natural fit for physical activity settings such as PE and recreation. However, as with all models, there is a risk of misinterpretation leading to improper implementation, something the model's creators feel has happened to TGfU (Butler, 2014). To avoid this, teacher and pupil benchmarks (see Appendix B) are one recommendation for planning, implementation, and assessment of all models, supporting a stronger adherence to its design and increasing the likelihood that pupils will achieve the main outcomes that TGfU supports (Metzler, 2017). TGfU and other game-centred approaches are also not without other tensions. For example, "if TGMs [tactical games models] are to become normative practice…a reorientation of the ecology of the physical education setting to be consistent with the learner-centred philosophy of the model is required" (Harvey & Pill, 2016, p. 321). Since creating pupil-centred learning opportunities and contexts is an

expectation within 21st-century education (Christou, 2016; Rotherham & Willingham, 2009), institutional support may be ripe for a reorientation of the ecology of PE in the form of learner-centred pedagogical approaches inherent in MBP (e.g., TPSR, CL, Peer Teaching, and TGfU).

3.5 Course Contexts: Implementing Models-Based Practice

In deepening how PSTs learn about how to use MBP, it is important for them to be provided with opportunities to both learn about the model (i.e., its features and principles) while also learning through the model (i.e., experiencing the model as a learner so it can be critiqued and applied from a teacher's perspective). Deepening understanding of T&L about and through MBP in teacher education, therefore, requires examination in and of context. Attention to interactions within these contexts are influential in reframing, transforming and deepening understanding of practice (Pinnegar & Hamilton, 2009). In the previous section, I provided detailed descriptions of context focused on geopolitical, programmatic, and pedagogical features. In the following section, descriptions of what MBP looks like in each course I taught, including how each model was chosen and implemented into the four separate courses, is further elaborated.

3.5.1 What does models-based practice look like?

As a practice based in the use of multiple pedagogical models, MBP supports teachers in approaching curricular outcomes with diversity of learners' needs at the centre of all pedagogical decisions. In approaching the T&L of PE content through MBP, participants are prioritized through the integration of multiple learning domains and, as such, MBP "serve[s] as a fulcrum for the interdependence and irreducibility of learning, teaching,

subject matter and context" (Casey, 2014, p. 13). Other contextual considerations such as prescribed curriculum outcomes and PE content (e.g., gymnastics, rhythmic activities, fundamental motor skills) would also inform the teacher's decision of which pedagogical models to implement.

3.5.2 The process of choosing pedagogical models for the courses taught as part of this research

In choosing models that will support quality T&L, strong consideration must be given to context. The context of this study included teacher education courses in a PE program, me (as the teacher educator of these courses), and PSTs who were learning and teaching about and through a MBP approach. This is different from the typical context of MBP, which is school-aged pupils in schools. Sites for this research included university classrooms, a gymnasium, a field, and community settings such as schools. Course content included movement concepts and dance, gymnastics, and territorial games, all of which were approached through MBP pedagogy. In addition to these contextual considerations within PETE programs, strong consideration was given to which pedagogical models to implement during what courses, based on PSTs' perceived needs. Both my experiences teaching in public schools and within university-based teacher education enabled me to make informed decisions grounded in personal experience. For instance, these experiences contributed to my assumption that PSTs would be largely unfamiliar with approaches (e.g., first physical activity course, and first exposure to MBP and to each other), and content (e.g., movement concepts and dance). I therefore concluded that PSTs would benefit from models that prioritized building community and developing relationships (i.e., TPSR & CL). In addition,

my decisions to implement MBP and to select certain models were based on an understanding that PSTs were likely expecting to learn content *and* learn to teach in ways that they were taught (i.e., traditional multi-activity model) (Lortie, 1975; Loughran, 2006) but that pupils in schools needed innovative approaches such as MBP to support making meaning of their movement experiences (Casey, 2014; Casey, 2017; Dyson et al., 2004; Gurvitch, Lund, & Metzler, 2008; Haerens et al., 2011; Kirk, 2010; Lawson, 2018; Metzler, 2017). In addition, the mounting evidence to support the use of MBP in schools and in PETE to address contemporary issues faced in the field of PE (Kirk, 2010, 2013; Lund & Tannehill, 2015; Quay & Peters, 2008) formed part of my decision for implementing and investigating MBP in PETE.

Based on these and other considerations, I made the decision that TPSR, CL, Peer Teaching, and TGfU would go some of the way in meeting what I perceived to be PSTs' needs, particularly those related to learning about content and pedagogy for working in K-12 educational and recreational settings. My perceptions of the needs of PSTs in their second through fourth years of university were partially based on the two previous years as a full-time lecturer teaching these same teacher education courses. Full and part-time teacher education experiences over a total of six years, and 17 years of teaching public school pupils, both of which involved learning about (e.g., reading, attending professional development) and through (e.g., implementation in public school, teacher education, professional development facilitation) pedagogical models, also highly impacted my choice of models.

Even though PSTs' needs were considered as a primary factor in the selection of pedagogical models, I also brought my biases and personal preferences based on beliefs and

experience. For example, I believe that part of preparing myself to meet the needs of PSTs is deepening my understanding of topics in order to better facilitate our growing understanding together. I am not attempting to situate myself here as the expert who is prepared to defend any challenge or to be the dominant voice which is heard above all others, but rather I aim to deepen my understandings of content in ways that support PSTs' learning, knowing that "effective teachers have deep knowledge of the subjects they teach, and when teachers' knowledge falls below a certain level it is a significant impediment to students' [pupils'] learning" (Coe, Aloisi, Higgins, & Major, 2014, p. 2). Accordingly, in designing courses that position me as facilitator in, and activator of, the co-construction of meaningful understanding of T&L, it is essential that I have a deep understanding of T&L, and content and pedagogy, and this takes time. I therefore chose models partly based on my familiarity and previous experience with them. For example, I had more than 17 years of experience with TPSR in both public school and post-secondary contexts, and seven years with both CL and TGfU, predominantly in the public-school system. However, I also challenged myself and took a risk by choosing Peer Teaching, a model with which I had no previous experience. In so doing, I was placing myself more firmly in the shoes of PSTs as Peer Teaching was as unfamiliar to me as it was to them. This served many purposes, such as providing me with the opportunity to share a closer experience with PSTs and modelling pedagogical risk-taking and continuous professional development.

The course contexts included four activity-based course offerings focusing on movement concepts and dance (2 offerings), gymnastics, and territorial games over three terms (i.e., Fall 2013, Winter 2014, Summer, 2014). In Table 1, and the section that follows, I expand on course context, including factors that affect interaction within the courses such

as course length, PST complement, course expectations, and PST requirements. It is also here that the foundations for model implementation will be laid, and connections with model choice will be made.

Semester & Year of Program	Hours/ Term	Course Name & Description from the 2013-2014 UCR Calendar	Number Enrolled (study participants in brackets)	Settings	Teaching & Learning *about* Models	Teaching & Learning *through* Models
Fall 2nd	71.5	*Movement Concepts* employs the conceptual approach to teaching physical activity facilitated through various forms of dance (e.g., creative, folk). Concepts, skills, and strategies will be emphasized.	18 (5)	-Gymnasium -Classroom -Public Junior High School class	Kellie -Accessing & critically examining MBP literature -Reflective journaling -Discussions with colleagues and PSTs -PSTs reflections -Writing & presentations (e.g., peer-reviewed manuscripts and presentations on MBP) -Developing learning[1] plans	Kellie -Course content approached through daily implementation of MBP (e.g., TPSR format, CL strategies, and CL roles) -Observation and feedback of my implementation of TPSR by colleague and PSTs using the TARE[2] tool -Reframing of model implementation by integrating lessons learned from learning *about* (e.g., deepening understandings through reflections, literature, and writing)

[1] In developing my practice, I now use the term "learning plan". This situates "learning" as the intent of the planning and serves as a reminder that my intention, and continued professional development, is also linked to constructing understandings with others (e.g., PSTs, pupils, professional development participants).

[2] The Tool for Assessing Responsibility-Based Education (TARE) instrument offers one useful means through which the implementation and practice of TPSR can be evaluated and reflected upon.

Table 1: *Course contexts (cont'd)*

Semester & Year of Program	Hours/ Term	Course Name & Description from the 2013-2014 UCR Calendar	Number Enrolled (study participants in brackets)	Settings	Teaching & Learning *about* Models	Teaching & Learning *through* Models
Fall 2nd (cont'd)	71.5	*Movement Concepts* employs the conceptual approach to teaching physical activity facilitated through various forms of dance (e.g., creative, folk). Concepts, skills, and strategies will be emphasized.	18 (5)	-Gymnasium -Classroom -Public Junior High School class	PSTs -Engaging with materials provided (e.g., TPSR planning format and CL benchmark sheets[3]) -Accessing & critically examining pertinent literature -Reflection assignments -Tickets out the door (i.e., exit slips -Developing and modifying learning plans	PSTs -Assuming learner roles and responsibilities (e.g., TPSR awareness talks and group reflection, and CL roles) -Assuming teacher roles and responsibilities (e.g., implementation of learning plan and reflection of team teaching)
Winter 2nd*	73.7	*Movement Concepts* employs the conceptual approach to teaching physical activity facilitated through various forms of dance (e.g., creative, folk). Concepts, skills, and strategies will be emphasized.	24 (2)	-Gymnasium -Classroom	Kellie -Same as Fall course PSTs -Same as Fall course	Kellie -Same as Fall course PSTs -Same as Fall course

[3] Benchmark sheets for all models were accessed from the following website that accompanied Metzler (2011): http://www.hhpcommunities.com/metzler/. For Metzler's (2017) text, benchmark sheets can now be accessed under "student resources" here:

Table 1: *Course contexts (cont'd)*

Semester & Year of Program	Hours/ Term	Course Name & Description from the 2013-2014 UCR Calendar	Number Enrolled (study participants in brackets)	Settings	Teaching & Learning *about* Models	Teaching & Learning *through* Models
Winter 2nd (cont'd)	29.25	*Gymnastics* may employ a number of teaching methods. Emphasis will be placed on the language and practice of the conceptual approach. Concepts, skills, and strategies will be emphasized.	20 (7)	-Gymnasium -Classroom	Kellie -Accessing & critically examining MBP literature -Reflective journaling -Discussions with colleagues and PSTs -PSTs reflections -Writing (e.g., peer-reviewed manuscripts and presentations on MBP) -Developing and modifying learning plans PSTs -Engaging with materials provided (e.g., PT benchmark sheets and CL roles) -Accessing & critically examining pertinent literature (e.g., pedagogical models) -Reflection assignments -Exit slips -Developing learning plans	Kellie -Course content approached through implementation of MBP (e.g., PT benchmark sheets, CL strategies and roles) -Reframing of model implementation by integrating lessons learned from learning *about* (e.g., deepening understandings through reflections, literature, and writing) PSTs -Assuming pupil[4] tutor and pupil learner roles while engaging in course content -Assuming teacher roles during team teaching

[4] Metzler's (2017) Benchmark Sheets use "student" to represent K-12 learners. In order to avoid confusion and maintain consistency, "pupil" will replace the use of "student" within the body of the dissertation. However, as an original document by another author, benchmark sheets within appendices will maintain their use of "student" in their title.

Table 1: *Course contexts (cont'd)*

Semester & Year of Program	Hours/ Term	Course Name & Description from the 2013-2014 UCR Calendar	Number Enrolled (study participants in brackets)	Settings	Teaching & Learning *about* Models	Teaching & Learning *through* Models
Summer 3rd or 4th	73.7	*Territorial Games* includes activities such as soccer and rugby, basketball, ice hockey, water polo, team handball and other territorial games. A number of teaching methods may be employed and emphasis will be placed on the language and practice of the conceptual approach. Concepts, skills, and strategies will be emphasized.	23 (6)	-Field -Classroom -Gymnasium	Kellie -Accessing & critically examining MBP literature -Reflective journaling -Discussions with colleagues and PSTs -PSTs reflections -Writing (e.g., peer-reviewed manuscripts and presentations on MBP) -Developing and modifying learning plans	Kellie -Course content approached through implementation of MBP (e.g., TGfU lessons from resources such as *Teaching Sports Concepts and Skills: A Tactical Games Approach*) -Reframing of model implementation by integrating lessons learned from learning *about* (e.g., deepening understandings through reflections, literature, and writing)

Table 1: *Course contexts (cont'd)*

Semester & Year of Program	Hours/ Term	Course Name & Description from the 2013-2014 UCR Calendar	Number Enrolled (study participants in brackets)	Settings	Teaching & Learning *about* Models	Teaching & Learning *through* Models
Summer 3rd or 4th (cont'd)	73.7	*Territorial Games* includes activities such as soccer and rugby, basketball, ice hockey, water polo, team handball and other territorial games. A number of teaching methods may be employed and emphasis will be placed on the language and practice of the conceptual approach. Concepts, skills, and strategies will be emphasized.	23 (6)	-Field -Classroom -Gymnasium	PSTs -Engaging with materials provided (e.g., TGfU lessons from resources such as *Teaching Sports Concepts and Skills: A Tactical Games Approach*[5]) -Accessing & critically examining pertinent literature (e.g., 2014 National Framework for Recreation in Canada) -Reflection assignments -Tickets out the door (i.e., exit slips) -Developing learning plans	PSTs -Assuming pupil tutor and pupil learner roles while engaging in course content -Assuming teacher roles during team teaching

3.5.2.1 The Movement Concepts Course

Movement Concepts was described in UCR's 2013/2014 Course Descriptions as the "conceptual approach to teaching physical activity facilitated through various forms of dance (e.g., creative, folk) in which concepts, skills, and strategies will be emphasized" (2019b, para. 12). The first offering of Movement Concepts was held in the Fall semester of the academic year, three times per week, lasting 1 hour and 50 minutes each class for 13 weeks for a total of 71.5 hours over the term. There were 18 PSTs in total (5 female[7], 13 male), 16 studying for a degree in PE and two in recreation. The second offering of Movement Concepts (in the Winter semester) had an enrollment of 24 PSTs (14 females, 10 males), about three quarters of whom were studying for a degree in education, with the rest majoring in PE, Recreation, and Therapeutic Recreation. This course was held, two times per week for 2 hours and 50 minutes each over 13 weeks, for a total of 73.7 hours over the term. Both courses took place primarily in the gymnasium supported by classroom sessions for topics such as developing learning plans[8]. PSTs in the Fall semester offering of Movement Concepts also had the opportunity to be co-instructors of dance at a local junior high school. Table 2 provides a summary of the Movement Concept course contexts.

[7] I will report on the biological sex of the PSTs because it pertains to context in that interactions are often based in social expectations, and PE is a degree option predominantly prescribed to by males. However, I also want to acknowledge that this does not take into account how PSTs self-identify. I feel it important to recognize, that while beyond the scope of the paper, factors such as biological sex, self-identification of sexuality, self-identification as a minority, are all present within context, and as such using terms such as female and male are not meant to silo individuals, but offer one representation of those involved in this study.

[8] In developing my practice, I now use the term "learning plan". This situates "learning" as the intent of the planning and serves as a reminder that my intention, and continued professional development, is also linked to constructing understandings with others (e.g., PSTs, pupils, professional development participants).

***Table 2**: Movement Concepts course context*

Hours per 13 Week Term	Scheduled Time Slots	Number Enrolled (study participants in brackets)	Settings
Fall Semester 71.5	3 times/wk. 1 hr. 50 min. each	18 (5)	-Gymnasium -Classroom -Public Junior High School class
Winter Semester 73.7	2 times/wk. 2 hr. 50 min. each	24 (2)	-Gymnasium -Classroom

Learning Movement Concepts content was complemented with PSTs T&L about and through TPSR and CL. PSTs were required to find trustworthy websites on topics highly relevant to course concepts and post a review of the sites to a Wiki page, complete two in-class quizzes, a TPSR learning plan, team teaching of that learning plan, an instructional effectiveness self-assessment reflection on team teaching, a reflective journal titled Making Connections, and a warm-up, and were not permitted to miss more than three classes (a UCR policy). In-class learning supports were in the form of flip charts, posters, whiteboards, CL roles (see Appendix A as one example) and benchmark sheets (see Appendix B), physical activity equipment, PowerPoints, TPSR and CL model learning plans, learning plan templates, assignment templates, websites, educational journal and other readings, and reflective discussions. PSTs were provided with a two-page syllabus with course and assignment expectations, as well as a two-page daily schedule indicating class topics and required readings (e.g., journal articles, book chapters, URL links). In addition to posting materials such as those previously stated, additional material to support PST learning such as APA information, more detailed assignment and assessment information, teacher code of

ethics, and my reflections on some classes were posted to the online course support platform. Course content included movement concepts, fundamental movement skills, the movement education framework as the integration of movement concepts and movement skills, physical literacy, local department of education PE curriculum documents, cooperation and/vs collaboration, choreography (e.g., creating movement phrases/sentences, using storytelling and sport as the springboard, modifying folk dance), convergent and divergent movement problems, movement challenges, novelty dances, multi-cultural dances, authenticity and/vs creativity/innovation, performance as part of dance, and assessment as, for, of learning dance.

As stated earlier, I used TPSR and CL in both K-12 and teacher education contexts prior to this study. Familiarity with these models provided a sense of security in an uncertain time of transition from teacher to teacher educator conducting research as part of my doctoral studies. This partly influenced my decision to use TPSR and CL as the introductory pedagogical models in the first course of this study, Movement Concepts. Using both models in the same course was also supported by Metzler's (2017) assertion that TPSR should be interwoven with other models based on pupil need, and that CL is an appropriate choice for a wide variety of PE content areas including dance. Indeed, as I was constructing this course and the study, a hybrid CL and TPSR model was being proposed (Fernandez-Rio, 2014), although this had no impact on my decision at the time. However, my decision was also based on considering what I perceived as the needs of those within the course—second year PE, recreation, and education participants, and what they would need and could draw from when beginning to enter schools and work with young people. In particular, based on past experiences, I perceived incoming PSTs as likely unfamiliar with (a) one another, (b) the

course content, (c) PETE activity-based courses, and (d) MBP as an approach to the T&L of PE content. Consequently, one of my goals for both Movement Concepts courses was building a sense of community. This goal of community building was based on one of the priorities of teacher education identified by Kosnik and Beck (2009). I, therefore, chose models that would support the development of community building as a means by which to create a warm and welcoming class atmosphere offsetting the predominance of unfamiliarity with course content, such as dance (Baker, 2015). As models that require purposefully planned group interaction as well as individual accountability through development in all learning domains (Metzler, 2017), TPSR and CL both supported this goal of building a sense of community in my PETE classrooms.

The Movement Concepts course, considered a second-year course, usually consists of PSTs who are at the beginning of their degree programs. Tailored toward the teaching of physical activity, and again based on previous teaching experiences within this faculty, I also believed the development of professionalism should be a key component of the course. The development of professionalism shares characteristics with TPSR and CL. For instance, qualities listed in TPSR levels include respect for the rights and feelings of others, effort, cooperation, self-direction, goal-setting, helping, caring, compassion, sensitivity, responsiveness, leadership, and transferring these qualities to contexts beyond initial PA and/or PE experiences. These are all qualities that support the development of professionalism and self-directed professional learning. In essence, PSTs could "live" the TPSR curriculum while also learning how to teach using the model (i.e., T&L about and through the model). Lastly, the choice of using two models for the Movement Concepts courses was based on my understanding that this may be the one and only experience PSTs

would have with MBP. Implementing two models more closely represents MBP as an approach that integrates multiple models into practice. I felt it necessary to make the differentiation between the implementation of singular pedagogical models and that of MBP within the first and possibly only course that PSTs would experience that was based in a models approach.

3.5.2.2 The Gymnastics Course

For most participants, Gymnastics was their second course based in MBP, and for all participants, it was their first exposure to Peer Teaching as a pedagogical model. The Gymnastics course was described in UCR's 2013/2014 Calendar as "employing a number of teaching methods with particular emphasis on the language and practice of the conceptual approach and concepts, skills, and strategies" (UCR, 2019b). Twenty (6 females, 14 males) predominantly PE PSTs with some post-secondary Recreation students, were enrolled in this Winter semester course, which was offered three times per week for 45 minutes each, for a total of 13 weeks. Table 3 provides a summary of the Gymnastics course contexts.

***Table 3**: Gymnastics course context*

Hours per 13 Week Term	Scheduled Time Slots	Number Enrolled (study participants in brackets)	Settings
29.25	3 times/wk. 45 min. each	20 (7)	-Gymnasium -Classroom

Course content included approaches to teaching educational gymnastics as well as the movement skills that support personally meaningful engagement in educational gymnastics. This included solving movement problems using skills within gymnastics

movement categories such as using landings, statics, locomotion, rotation, springs, and swings. As well, PSTs learned about and through gymnastics by creating movement problems/challenges, sequences, and assuming both tutor and learner roles as part of the Peer Teaching model.

Gymnastics assignments consisted of two website reviews, a class resource manual contribution detailing one day of class, a Peer Teaching learning plan, team teaching of that plan, instructional effectiveness reflection on the team teaching, a gymnastics unit plan, and professionalism and involvement. This was communicated to PSTs through a two-page syllabus, a daily course schedule which included readings, and more detailed descriptions of assignment expectations. Learning was supported through the use of the university's online platform, where I posted the syllabus, daily course schedule, team teaching schedule, model learning plans, PowerPoints on instructional effectiveness, assignment models, examples, details, rubrics, guidelines, and APA information. This platform was also used to communicate with PSTs via e-mail, and to add some post-class reflections, pre-class reminders, and to share on-campus opportunities. In addition to the aforementioned learning resources, flip charts, posters, whiteboards, Peer Teaching roles and benchmark sheets (see Appendix B), and physical activity equipment were used to support learning in the gymnasium and classroom. As was the case for all the courses, UCR policy required attendance with only three excused absences permitted.

Entering my third time as instructor of the Gymnastics course and knowing that many participants had experience learning about and through MBP (TPSR and CL) in the previous course (Movement Concepts), I took a pedagogical risk by choosing Peer Teaching to support learning how to teach gymnastics. This model was unfamiliar to me, but I felt it

complemented both PSTs' need to learn how to teach gymnastics content, and it provided me with a new challenge in T&L about and through MBP in developing and possibly transforming my practice. As a model that is based on a dyad of one tutor who teaches and observes, and one learner who performs what was taught, Peer Teaching fits well within individual sport skill learning (Metzler, 2017), a category that encompasses gymnastics.

Although I made the decision to use Peer Teaching in the Gymnastics course for reasons previously discussed, I also decided to continue the use of CL from Movement Concepts. I felt the continued use of the CL model provided consistency and was a means by which to further foster a sense of community. Sustained use of CL also served as a good platform from which to explore the concept of choosing pedagogical models based on content, as the model had been used for movement concepts and dance, and was now being implemented to support learning how to teach gymnastics. Ultimately, incorporating CL in more than one course was an opportunity to deepen the understanding of MBP versus the implementation of singular pedagogical models.

Course content was one of the contextual considerations in choosing pedagogical models for both Movement Concepts and Gymnastics. The same was true of Territorial Games. However, in no course was it more apparent which model should be chosen, based on course content, than in Territorial Games.

3.5.2.3 The Territorial Games Course

During the Summer semester, 23 (8 females, 15 males) predominantly PE PSTs with some education PSTs and post-secondary Recreation students successfully completed Territorial Games. Most classes were split between the classroom and playing field as

classes were two hours and 50 minutes long, twice a week for 13 weeks totalling 73.7 hours of class time. Table 4 provides a summary of the Territorial Games course contexts.

***Table 4**: Territorial Games course context*

Hours per 13 Week Term	Scheduled Time Slots	Number Enrolled (study participants in brackets)	Settings
73.7	2 times/wk. 2 hours 50 min. each	23 (6)	-Field -Gymnasium -Classroom

As with the previous two courses, both online and in-class learning supports were used to support PSTs' engagement and the development of their understanding of both course content and pedagogical approach. These included a syllabus, course schedule, handouts, flip charts, posters, whiteboards, TGfU benchmark sheets (see Appendix B), assessment details, APA support, and some of my reflections. Assignments consisted of a group constructed website, the development of a presentation (e.g., PowerPoint, Prezi) on assessment in TGfU, team teaching of peers, an instructional effectiveness reflection, and the development of a personal definition of professionalism.

Given that Territorial Games is one of the four TGfU game categories, the TGfU model was a logical fit for this course. In addition, TGfU was a model with which I had previous implementation experience (i.e., grades 5-9 and post-secondary), as well as my having participated in professional learning experiences facilitated by some of the most prominent TGfU researchers in the world, such as Dr. Joy Butler and Dr. Tim Hopper. TGfU met my needs and what I perceived to be the PSTs' needs, both of which were influential factors in choosing this model. Furthermore, as the pedagogical model perhaps most researched in Canada (Baker, 2016), and a model that, at the time of this research, was

referenced in seven curricula across the country (Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador), engaging in T&L about and through TGfU is directly exposing PSTs to a pedagogical approach recommended in the field and present in Canadian PE policy documents. Course content included games and sport from all four original TGfU games categories (i.e., Invasion/Territory, Target, Net/Wall, Striking/Fielding). Wanting to challenge PSTs to think beyond their own personal experiences and preferences, I also included contextually non-traditional sport such as American Football, Bocce, Pickleball, and Cricket and also used team names from under-represented sport (e.g., WNBA team names rather than NBA). An interdisciplinary lens also figured prominently in the foundation of this course. Content was connected to recreation frameworks such as *A National Framework for Recreation in Canada* (Canadian Parks and Recreation Association, 2014). Territorial games taught through TGfU also supported content that were approached conceptually rather than siloing skills, techniques, and strategies as sport specific. For example, I focused on offensive and defensive strategies, characteristics of game categories, and transferability of concepts between and across game categories. Observation and feedback, assessment, the application of TGfU as an approach to sport and games teaching, and implementation from grades 4-12 were also frequently featured in learning plans.

Having taught at UCR full-time for the two years previous to implementing MBP as part of this research, I had an insider's knowledge and understanding of this course. I knew that the class complement would likely be: (a) predominantly PE PSTs, (b) most of whom would have had previous activity-based course experiences incorporating a MBP approach, (c) in their last year or second last year of their degree program, (d) many of whom would

have completed a school placement, and (e) who largely had multi-sport, sport-as-technique, public school PE experiences (as indicated in their previous course reflections). Given my previous teacher-learner relationships and course experiences, I brought with me the knowledge that: those subscribing to the course would likely have years of experience in and with sport and games; some would be from the recreation stream; the focus of the courses up to this point had been on school-based contexts; and that some may graduate and not enter the teaching profession but may enter fields related to teaching such as recreation. I therefore viewed Territorial Games as an opportunity to challenge PST understanding and beliefs of MBP and content delivery by choosing TGfU as an alternative approach to games and sport learning. Further challenging MBP implementation, the focus for this course was implementation within recreation settings, such as community sport programs. School-based contexts were still discussed, but explicit attention was paid to implementation within recreation. For example, learning plans were developed based on recreation documents (e.g., goals and outcomes) rather than K-12 curriculum documents.

Chapter 3 Summary

Pinnegar and Hamilton (2009) remind us that "Context is a usually silent but ever-present influential companion in S-STEP research" (p. 81). Although there are still parts of context that will remain silent, this chapter systematically brought voice and recognition to the geopolitical, programmatic, pedagogical, and course contexts of this S-STEP research in order to acknowledge its influence. In doing so, this S-STEP research stretches beyond the self, providing others with the contextual information necessary in determining the extent to which assertions for action and understandings from my research can be transferred for

examination to their contexts and situations (Pinnegar & Hamilton, 2009). In the next chapter, methodology and methods, I will build on context as presented in this chapter to describe how I collected and analyzed data in the contexts of the research.

Chapter 4 - Methodology and Methods

In this chapter, I outline the methodology and methods used for my research. The chapter includes discussion related to philosophical issues underpinning the methodology of S-STEP scholarship, including relativist ontology, emic epistemology, and ways the self is situated within the research. As well, the research methods—the tools and strategies used for data collection and data analysis—are justified and connected to the research questions. In order to address the methodology and methods, I have organized this chapter into seven sections. In the first section, a brief restatement of the purpose and research questions is provided. In section two, I explain the methodological perspectives that framed the study. I discuss the research design using S-STEP in the third section. In section four, I build on context, as presented in Chapter 3, with a brief review of the teacher education program and an in-depth discussion of the research participants situated within the study. In the fifth and sixth sections, the qualitative methods used to gather data and techniques used to analyze the data are described. The seventh section provides a discussion of ethical considerations.

4.1 Re-statement of Purpose and Research Questions

4.1.1 Purpose

The purpose of this research is to examine the development and articulation of a personal pedagogy of physical education teacher education using MBP. Better understanding, developing, facilitating, and articulating the *teaching-learning process* and the development of *knowledge of practice* can support my emerging practice as a teacher educator in order to maximize benefits for current pre-service teacher and their future pupils (Berry, 2008; LaBoskey, 2004; Loughran & Russell, 2002). In attending to this purpose

there is also an intent to take the insights generated from the self-study beyond the self, with the central purpose being to uncover "deeper understandings of the relationship between teaching about teaching, and learning about teaching" that has meaning within broader teacher education contexts (Loughran, 2007a, p. 12). This has led me to use an S-STEP approach to this research with the intention of providing insights into *teaching about teaching* and *learning about* and *through* innovative PE practice in the form of MBP from both the perspectives of myself as a teacher educator, and those of PSTs enrolled in classes I taught.

4.1.2 Research questions

This study draws from an interdisciplinary literature base to inform the research questions, research design, and data analyzes. Central to this S-STEP research are four overarching research questions:

- What do I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding my experiences of teaching and learning as a teacher educator?
- What do I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding pre-service teachers' experiences of their learning and my teaching?
- How does examination of my implementation of MBP in PETE inform the development and articulation of my pedagogy of physical education teacher education?
- How does the development and articulation of my pedagogy of physical education teacher education using MBP contribute to a broader understanding of teacher education practice?

Situating the research in an appropriate research paradigm must include considerations such as research purpose and questions (Loughran, 2004; Pinnegar, 1998). In order to do this, researchers should also make apparent their philosophical stance (i.e., ontology and epistemology) in supporting their choice of appropriate research paradigm (Holden & Lynch, 2004). Therefore, in the next section, I outline the rationale for choosing an S-STEP approach, with particular attention to ontological and epistemological considerations.

4.2 Methodological Perspective: S-STEP Approach

4.2.1 Rationale

In my initial experience as a teacher educator, I naively approached the role as being a simple transmitter of knowledge, imparting my years of experience and tricks of the trade I developed as a K-12 public school educator onto the next generation of teachers. Being immersed in a context where I was now required to teach teachers about teaching PE rather than teaching school-aged pupils PE itself, brought with it the realization that I needed to more deeply consider the complexities of T&L for both pupils and PSTs.

Engaging in quality S-STEP is one approach that many teacher educators have found constructive in examining their taken for granted assumptions about T&L as they develop appropriate and meaningful pedagogies within teacher education (e.g., Berry, 2008; Brandenburg, 2008; Bullock & Ritter, 2011; Casey & Fletcher, 2012; Fletcher & Casey, 2014; Richards & Fletcher, 2020; Richards & Ressler, 2016; Williams et al., 2012). I turned to S-STEP as a research approach to examine and articulate the processes

and complexities of developing a pedagogy of physical education teacher education practice using an innovative approach (i.e., MBP). In so doing, I was also (a) making meaning of my developing pedagogies and identity as a teacher educator and (b) extending my critical analysis of teacher education practice beyond my local practice by connecting it to teacher education literature and conceptualizations developed by others—an essential element in showing how the issues confronted by the self are related to public issues and concerns (Vanassche & Kelchtermans, 2015).

Given that "S-STEP researchers are guided by unique assumptions about research that are revealed in the stances toward research that we take on" (Pinnegar & Hamilton, 2009, p. 7), in the next part of this chapter I will address the ontological and epistemological stance I took for this S-STEP research. This will include a discussion of how the S-STEP research methodology was guided by a relativist ontology, emic epistemology, and a broad social constructivist position.

4.2.2 S-STEP research: Ontology and Epistemology

Teacher educator-researchers who have an ontological stance rooted firmly in relativism are well situated to adopt a self-study approach (Clandinin & Rosiek, 2007; Pinnegar & Hamilton, 2009). Relativist ontology asserts that multiple socially constructed realities exist (Coll & Chapman, 2000; Guba & Lincoln, 1994). Relativism positions individuals as constructing a unique knowledge base and experiencing a unique reality even within a shared context (Cunningham & Fitzgerald, 1996; Rescher, 2003; Schraw, 2013). This is because relativists typically believe:

- multiple versions of reality exist and are dependent upon the meaning attached to them,

- truth is shaped by context and does not exist without meaning,
- since reality is created by how we see things it evolves and changes depending upon experiences, and
- if reality is context-bound it cannot be generalized but rather transferred to similar contexts. (Killam, 2013)

Following these assertions, relativists also believe that in-depth understandings demand an insider's view-an emic epistemology (Killam, 2013). An emic perspective is fundamental in understanding what people think, why they act the way they do, and how they perceive the world around them (Given, 2008).

An ontological and epistemological stance where knowledge is viewed as an interactive human construct also aligns with a broad constructivist position. Although there are numerous constructivist interpretations, they share an epistemological root in that learners are viewed as constructing their knowledge based on previous experiences (Martell, 2014). As the pioneer of social constructivism, Vygotsky (1962, 1978) perceived learning not as a passive process where the learner receives what is taught, but rather an interactive process in which learners construct meaning from reality (Liu & Chen, 2010). Social constructivists typically believe that:

- reality cannot be discovered because it is constructed through human activity,
- knowledge is socially and culturally constructed in that individuals create meaning through their interactions with each other and their environment, and
- meaningful learning occurs when individuals engage in social activities. (Kim, 2001)

Furthermore, learning emerging from the social interaction within a group is believed to be greater than those that are possible by the individual (Light, 2008). This is because no one

person knows it all (Seifert, 2002) but that each of us brings knowledge (e.g., skills, ideas, beliefs) that will help deconstruct and reconstruct our knowledge. Consequently, both the context in which the learning occurs and the social and cultural contexts that the learners bring with them to their learning environment are crucial considerations in the process of learning (Kim, 2001); both the learner and that which is being learned are transformed through the T&L process (Daniels, 2008). Furthermore, constructivist perspectives that position learners as actively constructing their own meanings and understanding as they make connections between new and old experiences and information have clear implications for pedagogical approaches (McPhail, 2016).

As a teacher educator and researcher, I value both my experiences as a teacher and teacher educator and those of PSTs in contributing to what is known and understood about T&L. A research approach that examines the relationships and interactions between teacher educators and PSTs was needed to meet both the purpose of this research (i.e., to examine the development and articulation of a personal pedagogy of physical education teacher education using MBP) and my perspectives on research, teaching, and learning (i.e., relativistic, emic, social constructivist). I therefore chose S-STEP as the research approach. In the next section, I will further justify S-STEP as the approach to this research.

4.2.3 S-STEP as a methodological approach to research

S-STEP grew from the need for a research paradigm commensurate with practitioners seeking improvement in teacher education (Berry, 2008). Not easily or simply defined, Berry and Hamilton (2013) categorize S-STEP as a form of practitioner research used to study both teacher educator practice and PSTs' learning:

> Self-study functions as a means of better understanding the complex nature of teaching and learning and of stimulating educational change. In self-study, researchers focus on the nature and development of personal, practical knowledge through examining, in situ, their own learning beliefs, practices, processes, contexts, and relationships. Outcomes of self-study research focus both on the personal, in terms of improved self-understanding and enhanced understanding of teaching and learning processes, and the public, in terms of the production and advancement of formal, collective knowledge about teaching and teacher education practices, programs, and contexts that form an important part of the research literature on teacher education. Both personal and public purposes are concerned with the reform of teaching and teacher education that works from a social change and social justice perspective (p. 1).

Loughran (2018) uses a metaphor of a journey to conceptualize self-study:

> Understanding self-study through the metaphor of a journey and thinking about that metaphor in relation to the destination can help explain the difficulty of simplistically defining self-study. So too paying careful attention to the relationship between a pedagogy of teacher education, its enactment and development in teaching teaching can help to explain why that journey matters" (p. 6).

Further emphasizing the complexity of this research approach, Ovens and Fletcher (2014) have also suggested that the main aim of S-STEP is "to provoke, challenge, and illuminate how we enact ourselves in practice rather than apply, confirm and settle preconceived ideas about practice" (p. 45).

As a methodological approach, S-STEP focuses and connects the research process to teacher education practice by acknowledging and giving voice to individuals engaged in studying their own practice, while also bringing to light the inherent tensions and ethical nature of this type of work (Casey & MacPhail, 2018; Fletcher & Ovens, 2015; Hamilton & Pinnegar, 2015; Ovens & Fletcher, 2014; Tannehill, Parker, Tindall, Moody, & MacPhail, 2015). As a form of scholarship, S-STEP draws on a wide range of research tools in order to help the teacher educator-researcher understand, articulate, and defend teacher education

practice (Bullough & Pinnegar, 2004). S-STEP scholarship requires taking an inquiry-oriented stance towards researching one's own practice, and helps teachers and teacher educators better understand and develop the self by articulating the *teaching-learning process* and their *knowledge of practice* in order to maximize the benefits for self, practice, PSTs, and the field of teacher education (Ovens & Fletcher, 2014; LaBoskey, 2004, 2007; Vanassche & Kelchtermans, 2015). S-STEP researchers aim to bring to light their tacit knowledge of teaching through systematic investigation of their own practice in relation to wider conversations within the field of teacher education. The articulation of this tacit knowledge can help to develop explicit understandings to be shared within and outside the field (Hamilton & Pinnegar, 2015; Vanassche & Kelchtermans, 2015), for example, through the development of principles of practice and a personal pedagogy of teacher education.

Researchers grounding their investigations in S-STEP methodology are committed to their ongoing professional learning by considering the self-*in*-practice—their assumptions, beliefs, and actions as they are enacted in practice—but also in how this professional learning can inform the fields of teaching and teacher education (Casey et al., 2017; Ovens & Fletcher, 2014). S-STEP is not simply navel-gazing (Northfield, 1996), however, but is instead a complex research approach that allows the researcher to carefully examine the connections between public and private, theory and practice, research and pedagogy, self and other, in relation to theories about learning and the nature of teaching (LaBoskey, 2004; Loughran, 2004). In order to accomplish this, S-STEP researchers must identify, generate, articulate, and share understandings about practice gained from the research process (Loughran, 2010). This is accomplished by employing multiple, primarily qualitative methods such as reflective journals, interviews, text analysis, critical conversations and

observations (LaBoskey, 2004). Other characteristics of quality S-STEP (discussed more thoroughly in subsequent sections) also demand that newly gained understandings be enacted, shared, and critiqued within classes taught, and communicated to others within and beyond the teaching communities, thereby linking it to the wider field of teacher education, education, and other fields (Fletcher & Ovens, 2015; LaBoskey, 2004; Vanassche & Kelchtermans, 2015; Zeichner, 2007). Conceptualized in this way, S-STEP is not simply a reflection of the self-in-practice, but rather "a recognition and owning of practice for understanding and improvement" (Hamilton & Pinnegar, 2015, p. 182) for self and for the field of teacher education.

Even though S-STEP scholarship has arguably reached a stage of maturity (Bullock & Peercy, 2018), criticisms of the approach persist (Tidwell & Fitzgerald, 2004; Vanassche & Kelchtermans, 2015). For example, Zeichner (2007) suggested that the small-scale nature of S-STEP research means that its outcomes and insights have had a limited impact on teacher education policy. S-STEP researchers have responded to this criticism by engaging in systematic investigation, holding one's research up for public scrutiny, building upon each other's work, and linking S-STEP questions to wider research questions and research programs. In so doing, S-STEP researchers are continuously managing two sets of tensions: "the tension between relevance and rigour on the one hand, and that of effectiveness and understanding on the other hand" (Vanassche & Kelchtermans, 2015). Researchers have managed these two sets of tensions by focusing on "both the context level and individual level, by furnishing research infrastructure and building research culture, on the one hand, while requiring teacher educators' agency in their own learning, on the other" (Tack & Vanderlinde, 2016, p. 237).

Beyond quelling criticism, however, research must be conducted in ways that support the trustworthiness of the findings and their interpretations. In the following section on research design, I detail the characteristics of quality S-STEP research.

4.3 Research Design using S-STEP

4.3.1 Characteristics of quality self-study

My inquiry was guided by the following characteristics of quality in self-study articulated by LaBoskey (2004). Specifically, self-study, which also applies to S-STEP research, is or should be: (a) self-initiated and focused, (b) improvement-aimed, (c) interactive, (d) includes multiple, mainly qualitative, methods, and (e) validity is interpreted as a validation process based in trustworthiness. More than a decade after the publication of LaBoskey's characteristics for quality self-study, Vanassche and Kelchtermans (2015) published a systematic review of the literature on the state of the art of S-STEP. They concluded that much of the S-STEP field can be defined in relation to LaBoskey's (2004) characteristics. That is, Vanassche and Kelchtermans (2015) defined S-STEP as a research approach typified by being focused on one's own teacher education practice and, as such, it privileges the use of qualitative research methods, collaborative interactions play a central role in the research process, and validation is based on trustworthiness. Thus, LaBoskey's characteristics of S-STEP offer a robust guide to inform the design of my research. In the sections that follow, I explain how I addressed and accounted for each characteristic in my research design.

4.3.1.1 Self-initiated and focused

Since the goal of S-STEP is for teacher educators to generate knowledge about teaching and teaching teachers by better understanding their practice, S-STEP must be self-initiated and focused on the teacher educator-researcher both finding resolutions to problems and pursuant educational reformation (LaBoskey, 2004). Although I had been an educator in K-12 public schools for more than 15 years, in my new position as teacher educator, I came to realize that I wanted and needed to learn more about teacher education pedagogy. This spurred me to focus on my teacher education practice. In particular, based on the potential of MBP as an avenue for sustained reform in PE and PETE pedagogy, I was invested in ways my teacher education practices were interpreted and experienced by PSTs as they learned about and through MBP.

Tasked with teaching ten separate post-secondary courses during my first year as a full-time lecturer at UCR, my primary focus was on developing my understanding of course content (i.e., movement concepts, dance, gymnastics, territorial games). While this may have been a necessary course of action given my role and responsibilities at the time, I began wanting to focus on improving my teacher education practice for both myself and PSTs. I was making what Russell (1997) terms a *pedagogical turn* away from a singular focus on content toward deeply considering *how* I was teaching and the messages I was thereby conveying to PSTs.

My initial interest was in T&L about and through TPSR in teacher education. However, after learning that MBP was being advocated for as one of the most promising avenue for a sustainable future in PE (Kirk, 2010), but that little had been done in the way of making that a reality (Casey, 2014), my focus changed. If I were to identify a problem

of practice that focused on ways PSTs learned about and through MBP, I would be provided with: (a) an exciting lens through which to consider my practice, (b) a way to expose PSTs to a cutting edge practice (i.e., MBP) as a possible future for PE (Kirk), and (c) knowledge that I could contribute to the field of teacher education by adding further contextual understandings of MBP. I therefore continued my self-initiated and focused (i.e., implementing MBP in PETE, developing principles of practice, and developing a pedagogy of physical education teacher education) S-STEP research, with much still to learn.

4.3.1.2 Improvement aimed toward transformed practice

Self-study methodology is designed to help teacher educators carefully and thoroughly examine, understand, and improve their professional practice in order to inform educational theory and practices (LaBoskey, 2004). I have a desire to improve my understandings of educational situations in which my practice is based in order to better meet the needs of PSTs and their future pupils (LaBoskey, 2004; Pinnegar & Hamilton, 2009). In addition, I am concerned with the state of both PE and PETE and want to be part of "doing" PE differently (Casey, 2014, p. 19) through research-informed practice.

4.3.1.3 Interactive

Interactivity is an important feature of this S-STEP research in both guarding against solipsism by valuing others' perspectives and as a means by which to legitimize S-STEP within the educational research community (Fletcher, Ní Chróinín, & O'Sullivan, 2016; Kelchtermans & Hamilton, 2004; Vanassche & Kelchtermans, 2015). Gathering multiple perspectives from PSTs, texts, and/or colleagues is both crucial in challenging an S-STEP

researcher's assumptions and biases, and aligns well with a social constructivist perspective that values T&L as an interactive process where knowledge is socially constructed and co-constructed (LaBoskey, 2004).

There were several ways that interactivity was represented in this research design. I was in regular contact with one of my doctoral supervisors to discuss the courses, the process of S-STEP, MBP implementation, and share triumphs and disappointments in my practice that I used to then further reflect, critique, and analyze my teaching practice. My research was also interactive in that I placed PSTs' experiences of my practice as just as valuable as my own (Russell, 2018). Some examples included interacting with PSTs face-to-face, via email, and through writing (assignments and feedback) before, during, and after class, as well as at the end of all courses and through multiple interviews. Many of these interactions served as primary data sources and offered a means to check PSTs' interpretations with regard to their learning about and through MBP (LaBoskey, 2004; Russell, 2018). Having a colleague observe and provide feedback on my implementation of MBP also served as a form of interactivity (Fletcher et al., 2016) that supported the reframing of my practice (LaBoskey, 2004).

4.3.1.4 Multiple qualitative methods

Understanding the self-enacting-practice within the dynamic contexts of T&L requires multiple methods (Hamilton & Pinnegar, 1998; Hutchings, 2000; LaBoskey, 2004; Loughran & Northfield, 1998; Zeichner, 1999). In addition, qualitative approaches to research are consistent with the relativist, emic, social constructivist approach of this research as they value subject-subject interaction, view facts and values as inseparable, and

seek for understanding and multiple truths (Paul & Marfo, 2001). With this in mind, reflective teacher journals, annotated learning plans, text analysis (e.g., course artifacts, educational literature), individual PST interviews, focus group interviews, reflective PST assignments, PST feedback, and PST and colleague critical observations were used for critique and analysis. These are described more fully in the section on Data Collection Methods.

4.3.1.5 Validity being based in processes of trustworthiness

Like many forms of practitioner research, S-STEP establishes validity through trustworthiness (i.e., credibility, transferability, dependability, and confirmability) of the researchers' knowledge claims (Casey et al., 2017; Hamilton, 2004; Lincoln & Guba, 1985, 1990; Lyons & LaBoskey, 2002; Mishler, 1990). In such a redefinition of the traditional notion of validity, the integrity within a self-study research process rests in its trustworthiness (Ham & Kane, 2004; Hamilton & Pinnegar, 2000; Mishler, 1990). In building trustworthiness, multiple sources of data and perspectives must be present acting as a form of triangulation or crystallization (Feldman, 2003; Ham & Kane; LaBoskey, 2004; Loughran & Northfield, 1998). As detailed in the Data Collection Methods section that follows, multiple forms of data from PSTs, an outside observer, and those I generated myself were collected. These multiple forms of data supported my *self-critical reflexivity* as a means by which to pass "both the test of honesty and the test of self-delusion in judging self-research as valid or convincing representations of how an experience was for me" (Ham & Kane, p. 129).

Ways in which the data were analyzed also supported trustworthiness. For example, the voice and perspectives of others were compared with my own. Like Samaras (2002), I compared my reflective journals (from the point of view of teacher educator) to PSTs' reflections. Transcriptions of semi-structured individual and focus group interviews were compared with my interpretations of T&L about and through MBP. As well, critical observations of my implementation of TPSR and CL by an outside observer and PSTs were compared to my beliefs of my practice in implementing MBP.

In deepening trustworthiness, it is also important that findings are connected to the larger context of educational literature (Ham & Kane, 2004; Hamilton & Pinnegar, 2015; Ovens & Fletcher, 2014; Vanassche & Kelchtermans, 2015; Zeichner, 2007). Analysis within this S-STEP research included considering theories such as a pedagogy of teacher education (Loughran, 2006) and socializing experiences (Lortie, 1975). Sharing this research with my co-participants (i.e., PSTs), my doctoral supervisors, dissertation reviewers, and by way of publication, I now rely on others in my community to assess the trustworthiness of the research by asking if the findings and interpretations "ring true" with their own understanding and experiences of teacher education practice (particularly in terms of MBP) in their own contexts.

4.4 Context and Participants

In Chapter 3, I focused on contexts of this S-STEP research with particular emphasis on the post-secondary program at UCR and the implementation of MBP within four PETE courses. However, context within S-STEP research must also include in-depth consideration of the research participants. Context and participants are fundamental considerations of S-

STEP research because they "shape the practice, our interaction and action in practice, as well as the understandings we develop…and provide evidence of beliefs and assumptions" (Pinnegar & Hamilton, 2009, p. 81). Therefore, in the next part of this chapter, I expand on the university and programmatic context discussed in Chapter 3 by situating participants within the research.

4.4.1 Participants

Participants are both a part of the context and a crucial component in studying one's practice (Pinnegar & Hamilton, 2009). Therefore, in the next part of this chapter, I position the participants (i.e., myself and PSTs) within this S-STEP research. This S-STEP research is an examination of the development and articulation of my personal pedagogy of physical education teacher education using MBP. As the teacher educator implementing MBP while simultaneously studying my teacher education practice T&L about and through MBP, I am situated as both researcher and participant. However, part of investigating my teacher education practice also involved the experiences of PSTs as they learned about and through MBP. For a more meaningful unpacking of the complexities of teacher education pedagogy, to avoid self-absorption, and to acknowledge T&L as a co-constructed experience, PST participants were recruited.

4.4.1.1 Situating Self within Self-Study

According to Mitchell and Weber (2005, p. 4), "…looking inward can lead to a more intelligent and useful outward gaze." As the term self-study would suggest, situating the self is an important element to S-STEP research. However, self-study should not be misinterpreted as a study solely about self, but rather a "recognition of the contribution that

'self' makes, and the role 'self' takes in the multi-layered world" (Hamilton, 2004, p. 403). Conceptualized in this way, there is recognition that self is part of the study, but the focus is on the interconnected relationship of self, other, practice, and context (Bullough & Pinnegar, 2001; Loughran, 2004; Ovens & Fletcher, 2014).

My aim in the next section is to provide a sense of who I am as a teacher educator-researcher, as this impacts my actions and my interpretations of these actions (Pinnegar & Hamilton, 2009). Because our personal histories affect our stories and potential for change, there is power in using the writing of a narrative as a process and a pathway toward change (Bass, 2002; Pinnegar & Hamilton, 2009). Exploring one's personal history—the formative, contextualized experiences that influence teachers' thinking about teaching and their practice—allows the practitioner-researcher to acknowledge, analyze, and challenge cherished beliefs as influencing and limiting the choices we make as teacher educators and researchers thus adding to the trustworthiness of data collection and analysis (Samaras, Hicks, & Berger, 2004). An in-depth account of my experiences as a learner, teacher, and researcher, and in what ways those impact researcher bias is provided as a snapshot of experiences within this methodology and methods chapter. This is intended to increase the trustworthiness of the linkages I make between data, findings, and interpretations in chapters that follow (LaBoskey, 2004; Loughran & Northfield, 1998; Mishler, 1990). Readers are therefore encouraged to use this contextual information as one means by which to determine if understandings gained from this research can be applied to their contexts.

4.4.1.2 Situating myself within the research: Experiences as a learner

The first 21 years of my life remained largely untouched by anything other than sport-based learning experiences. As a female pre-schooler, I was enrolled in ballet, but it took little time for all involved to realize it had been the wrong choice (see Baker, 2015). Soon after, I followed in my brother's footsteps and began playing tee-ball, which was a doorway into baseball, basketball, softball, field hockey, volleyball, and touch football. Sport became my life, competitively, recreationally, and within PE.

It wasn't until the age of 21 that my view of PE was interrupted in a post-secondary teacher education program at a large Eastern Canadian university. The PE-as-sport-technique (Kirk, 2010) model that dominated all my previous PE experiences continued within the Bachelor of Physical Education (BPE) program. However, there were also instances in my degree when this paradigm was challenged. Having to complete two dance courses seemed out of place to me since dance had never been a part of my previous PE experiences as a school pupil. Further interrupting my concept of PE to that point, some professors challenged us to critically examine our BPE program. I found this to be invigorating while completing my degree but also fleeting as more pressing demands such as finding employment became my reality.

Substitute teaching, working in non-tenured part-time public school teaching positions, and with no responsibilities of children of my own, I completed graduate school (MPE) within three years of completing my education degree. I generally found graduate school to be more accepting and supportive of the critical examination of topics and issues. It was during this time that I first remember being exposed to pedagogical models. The one that resonated most strongly with me was Hellison's (2011) TPSR model. Since I was also

teaching public school PE at the time, I began to use TPSR as the basis of my program. As the years passed I continued to use TPSR within my public school and teacher education practice, but it wasn't until further graduate studies (i.e., PhD) and engaging in S-STEP that I began to explore and examine the use of multiple pedagogical models (i.e., MBP) with focused intent (i.e., examining MBP in PETE, developing principles of practice and a pedagogy of physical education teacher education).

4.4.1.3 Situating myself within the research: Experiences as a teacher and teacher educator

When I was engaging in the implementation of MBP in four PETE courses as a teacher educator, I was bringing with me 17 years of experience from within both the K-12 public school and post-secondary systems. At the beginning of my teaching career, I taught primarily K-9 PE but have been increasingly assigned to classroom teaching duties as well.

Schools in which I have taught have had populations of between 110 and 750 pupils, with grades ranging from K-9. Some schools had racially diverse pupils being the neighbourhood school in closest proximity to associations for new Canadians, but most schools were predominantly populated with Euro-Canadian[9], Anglophone pupils. However, there was some language diversity as French Immersion was offered at most schools while others were solely populated with French Second Language learners or those of Francophone descent. Although the socio-economic status of pupils at the schools was varied, most of my career has been spent at schools that would be considered high needs

[9] Euro-Canadian is used in place of "Caucasian" in recognition that "Caucasian" is "a word that originated as a way of classifying White people as a race to be favorably compared with other races." https://apastyle.apa.org/style-grammar-guidelines/bias-free-language/racial-ethnic-minorities

economically, socially, and behaviourally. There was only one colleague that I can remember who was not Euro-Canadian, but several colleagues were Francophone. At K-6 schools, colleagues have been mostly female, whereas at the grades 7-9 grade level colleagues have been both male and female. Junior High School (grades 7-9) administrators were all female, while some K-6 schools had male administrators, but most were female principals and assistant principals.

During my time as an educator in the public school system, my teaching orientation had slowly shifted from that of a teacher who teaches PE-as-sport-technique (Kirk, 2010) to a teacher who teaches PE-for-personal-development (Baker, 2015). Early exposure to the TPSR model (Hellison, 2011) paved the way for me to implement one or more alternatives to the ineffective "one-size-fits-all, sport technique-based, multi-activity" forms of PE (Kirk, 2013, p. 2); alternatives such as opportunities to develop in multiple educational domains (physical, social, emotional, and cognitive) and experiences beyond traditional sport and games like movement education, dance education, rhythmic activities, and educational gymnastics.

As I entered into my 12th year of public school teaching, I took on a new challenge as a part-time university-based teacher educator while also continuing to teach full-time in public schools. Four years later, I began teaching full-time as a teacher educator while on leave from the public school system.

My path to becoming a teacher educator is not unique. As a K-12 teacher working first on a part-time, casual basis in teacher education, the entry into teacher education that I experienced has been labelled "serendipitous", "accidental", and occurring by "chance" (Loughran & Hamilton, 2016; Mayer, Mitchell, Santoro, & White, 2011). While these words

seem to indicate lack of intent, like others with similar paths (e.g., Davey, 2013; Dinkelman, 2011; Dinkelman et al., 2006; Mayer et al., 2011; Van Velzen, Van der Klink, Swennen, & Yaffe, 2010), I was deeply interested in teacher education for many initial reasons: to influence the development of the K-12 schooling by focusing on quality teaching with PSTs, greater personal and professional autonomy to pursue PE interests and commitments, and professional advancement (Loughran & Hamilton, 2016). My path toward becoming a teacher educator had its advantages. Situated in a position within the Canadian system that might best be titled as a *lecturer* (i.e., someone with increased teaching responsibilities but with little to no research responsibilities), I could focus more wholly on the PSTs' learning about T&L in individual courses and the development of my pedagogy as a teacher educator. This was because I did not find myself in the common position of tenure-track teacher educators, where research demands often supersede teaching development (Bullock & Ritter, 2011; Zeichner, 2005).

At the post-secondary level, I have taught in two faculties: PE and Recreation, and Education. Pupils and colleagues continued to be predominantly Euro-Canadian and Anglophone, with some PSTs self-identifying as Aboriginal. At the time of this research, I had taught a total of 10 different undergraduate and graduate courses during both part-time instructor and full-time lecturer positions totalling 43 course offerings over a six-year period. Classes ranged from teaching both PSTs to non-PSTs coming from a variety of faculties; one-on-one online to 1:140 ratio face-to-face contexts; and based solely in the classroom, predominantly in the gym or on the field, or a mixture of both. It was during my time as a full-time lecturer at UCR that I began my PhD studies..

Providing descriptions of my experiences is not to indulge in self-preoccupation but to provide readers with important personal and contextual information upon which they can make more nuanced interpretations of the research. Bringing myself into the context of my research and sharing that in the public domain builds trustworthiness by providing a fuller understanding of both the research process and resultant reframing (LaBoskey, 2004). Accordingly, these descriptions expose some of the biases I may have and the reasons for them.

4.4.1.3.1 Teacher Educator and Researcher Bias

Bias is a process where the researcher influences the results in order to portray a certain outcome. In acknowledging potential bias, S-STEP research requires researchers to be honest, trustworthy, and caring about making understanding and knowledge of practice explicit through publicly sharing the contradictions and complexities of teaching (Hamilton & Pinnegar, 2000). S-STEP researchers can also address potential bias by carefully documenting, reading through and reflecting upon observations, drawing on multiple sources of data and discussing the ongoing project and preliminary findings (Lankshear & Knobel, 2004).

In recognizing potential bias, I have acknowledged that my experiences, beliefs, and values are biased in the ways they influence my actions, reactions, and interpretations, and inform my understanding of my practice. In response to this bias, in the previous section, I explicitly outlined past experiences, my ontological and epistemological stances, and my social constructivist beliefs about learning. I have also employed LaBoskey's (2004) characteristics of self-study, as previously described in this chapter, to build trustworthiness.

In the Data Collection Methods section later in this chapter, I will further expand on ways in which I addressed bias present in an emic perspective such as documenting, reading, and reflecting on data from multiple perspectives, and using multiple methods to collect and analyze data (LaBoskey, 2004). In addition to these steps, I have also shared preliminary findings through peer-reviewed presentations at multiple conferences as I continued to analyze data.

Since "we do not construct practice alone, and most often coming to know practice involves deepening our understanding of and relationship with others" (Pinnegar & Hamilton, p. 14), in the next section I describe how PSTs' voices and experiences uniquely contributed to: (a) an understanding of teacher education practice and (b) reducing bias through interactivity. PSTs' voices and experiences are featured in one of the Results chapters later in this dissertation (see Chapter 6).

4.4.1.4 Participants: PSTs

Since I take a relativist, emic, social constructivist stance within this research, I believe that generating a deep understanding of the self is not an individualistic endeavour, but rather it is supported through interaction and experiences with others and the world around us. Critical friends provided me with alternative perspectives and support in aligning purpose, practice, and learning outcomes (Crowe & Berry, 2007; Loughran & Brubaker, 2015; Schuck & Russell, 2005). Critical friends are trusted people who ask provocative questions, provide data to be examined through another lens, and offer critique of a person's work (Costa & Kallick, 1993). In doing so, critical friends support thinking more deeply,

holistically, and honestly about the relationship between what is said and what is enacted in practice (Foulger, 2010).

In accessing an understanding of my teaching practice that may otherwise be invisible to me (Berry, 2004), I came to see PSTs as *critical contributors* (akin to critical friends or critical colleagues) as they offered alternative perspectives to my interpretations of practice (Baskerville & Goldblatt, 2009). Researchers have acknowledged critical friends and critical friendship as beneficial, even essential, in self-study (see Loughran & Brubaker, 2015). Furthermore, researchers have come to recognize that research questions related to the enactment of pedagogical practices are more comprehensively answered by including data on PSTs' perspective alongside teacher education data (Fletcher et al., 2016; Loughran, 2007a).

Valuing PSTs as critical contributors supports their powerful position within S-STEP scholarship as providing alternative ways of understanding my practice by comparing what I believed I was doing with what the PSTs perceived I was doing (Baskerville & Goldblatt, 2009; Crowe & Berry, 2007; Loughran & Brubaker, 2015; Schuck & Russell, 2005). Conceptualized here as more than just passive bystanders in the process of T&L, the PSTs and I supported and challenged each other through oral reflections at the end of class, in one-on-one discussions initiated by PSTs and by me (as the teacher educator), through generating and analyzing exit slips, reflection assignments, and after the courses had ended, individual and focus group interviews.

Following the guidelines approved by the Interdisciplinary Committee on Ethics in Human Research participant recruitment process, PST participants were recruited for the data collection phase by a third party (i.e., person who was familiar with the research process

but not affiliated with the course in any way. This person introduced the research project to PSTs, answered any questions, and provided PSTs with consent forms. PSTs were informed of the purpose of the study, its procedures, potential risks, benefits, and alternatives so they could make informed and voluntary decisions about whether or not to participate. Anonymity was specifically addressed during the recruitment phase. PSTs were informed that they would be anonymous to me, as the teacher educator-researcher, until after all grades had been released by the Office of the Registrar for all courses that were part of my research. The third party collected the forms, sealed them in an envelope, and stored them in a locked filing cabinet in the main office of the department. I did not access the consent forms until after all grades had been released by the Office of the Registrar for all courses that were part of my research.

A group of 9 UCR PSTs studying undergraduate degrees in PE, primary and elementary education, or recreation studies participated in this study. Pre-service teacher participants[10] were:

Amy: A female in her early 20's from a very large city of more than 1 million. She was in her second and third years of a four-year BPE program minoring in French.

Brian: A male in his early 20's from a small community of about 2,000 people. He was in his third and fourth year of a four-year BPE program.

Craig: A male in his early 20's from a very small community of less than 500 people. He was in his third and fourth year of a four-year BPE program, minoring in physics.

[10] A reminder that identifying information such as names of individuals, groups, cohorts, and institutions have been replaced by pseudonyms throughout the dissertation. As a further measure to protect the identity of participants, a description of race is not included as this was a small cohort with limited racial diversity.

David: A male in his early 20's from a small community of about 3,000 nestled within a large city. He was in his second and third years of a four-year BPE program with a minor in French.

Elizabeth: A female in her early 20's from a small town of about 10,000 people. She was in her second and third years of Kinesiology, after which she transferred to a BPE program.

Gerald: A male in his early 20's from a small community of about 800 people. He was in his second and third years of a four-year BPE program with a minor in geography.

Hunter: A male in his early 20's from a city of about 250,000 people. He was in his second and third years of a four-year BPE program.

Julie: A female in her mid 20's from a large community of about 40,000 people. She was in year three of a Recreation degree focusing on therapeutic recreation.

Scott: A male in his mid 20's from a small community of about 10,000 people. He was in his third year of an Education degree with a focus area in PE.

There is a suggested four-year progression for PSTs through the program. This formatted progression results in most PSTs moving together as a cohort from course to course. However, for a variety of reasons such as co-operative education opportunities, taking time off university, and being enrolled in programs housed in faculties other than PE, the PST complement for courses changed throughout the duration of the research. This resulted in PSTs having diverse experiences with and exposure to MBP as part of this research (see Tables 1 and 5). For example, on one end of the spectrum, Julie and Scott completed one course (Movement Concepts) and experienced two models (TPSR and CL) while David, Gerald, Hunter, and Amy, experienced all four models as they completed all

three courses that were part of this research. Further to contextual information provided in Tables 1 and 5, one (1) person majoring in Therapeutic Recreation and one (1) majoring in Education with a minor in PE were involved in Movement Concepts, thereby experiencing two pedagogical models (TPSR and CL). The other seven PSTs were pursuing Bachelor of Physical Education (BPE) degrees (teaching option), four of whom were in all three courses and experienced all four pedagogical models (TPSR, CL, Peer Teaching, TGfU). Two BPE PSTs took Gymnastics and Territorial Games, and experienced three pedagogical models (CL, Peer Teaching, TGfU). The other PST experienced three models (TPSR, CL, Peer Teaching) as part of the Movement Concepts and Gymnastics courses, after which time they transferred from UCR to another Canadian university to continue PETE studies but chose to remain a participant in the study completing all individual interviews but not the focus group.

***Table 5**: Participant course enrollment and model implementation*

Participant	Course Enrolment	Models Implemented*			
		TPSR	CL	Peer Teaching	TGfU
Julie	Movement Concepts	x	x		
Scott	Movement Concepts	x	x		
Elizabeth	Movement Concepts Gymnastics	x	x	x	
Brian	Gymnastics Territorial Games		x	x	x
Craig	Gymnastics Territorial Games		x	x	x
Amy	Movement Concepts Gymnastics Territorial Games	x	x	x	x
David	Movement Concepts Gymnastics Territorial Games	x	x	x	x
Gerald	Movement Concepts Gymnastics Territorial Games	x	x	x	x
Hunter	Movement Concepts Gymnastics Territorial Games	x	x	x	x

These PSTs had an alternative insider's critical perspective that allowed them to offer insights on learning about and through MBP and my teaching practice that could not be offered by others. Including their voices in ways that both challenged and supported my beliefs about my teaching practice and interpretation of the data builds the trustworthiness of the data. In further building trustworthiness, I detail data collection methods and analysis in the following sections.

4.5 Data Collection Methods

There is no one correct way of doing self-study (Hamilton & Pinnegar, 1998), but rather self-study methodology is a general approach that, as explained previously, typically involves multiple, primarily qualitative methods (LaBoskey, 2004). During this research, multiple forms of qualitative data were collected over an 18.5-month period (September 2013 to mid-March 2015).

Data were gathered using *qualitative* methods in order to make sense of my practice and developing pedagogies as well as to gain insights and understandings of PSTs' experiences of learning about and implementing MBP (TPSR, CL, Peer Teaching, and TGfU). Since an emic view asserts that objective reality can never be captured, some scholars claim it is essential that the researcher use multiple modes of data collection (e.g. analyzing documents, observing behaviour, and interviewing participants) rather than relying on one single data source, to add rigour, breadth, complexity, richness and depth to the study (Creswell, 2009; Denzin & Lincoln, 2011). In this sense, the data can be crystallized (much like triangulation), allowing multiple perspectives of participants and the researcher to be interpreted (Denzin & Lincoln, 2011; Richardson, 2000). Similar to

methods employed in recently published research on the co-construction of CL (see Dyson et al., 2016), I gathered multiple modes of data, many interactive in nature (e.g., annotated learning plans, reflective journals, critical colleague and PSTs' observations, individual interviews, and focus group interviews) to provide several lenses through which to address my research questions. In Table 6, I provide a summary of data sources, the number of participants, and elaborate on the data collected.

***Table 6**: Data sources and collection*

Data Source	**Number of Participants**	**Data Collected**
Reflective Teacher Educator Journals	1	~62,000 words; ~70 entries
Annotated Learning plans	1	92 learning plans (typically between 8 and 14 pages) annotated with naturalistic PST observations, questions, ideas, and thoughts further reflected on post-class
Course Artifacts	1	Evolving syllabi, course schedules, assessment guidelines, and assigned readings Posters and images chosen to support course content (e.g., movement concept posters); Flip chart supporting course content (e.g., TPSR lesson format) Electronic class postings: E-mails Evolving course content News items Post-class teacher reflections and additions Models-Based Practice literature Teacher education literature (e.g., S-STEP, Pedagogy of Teacher Education)

Table 6: *Data sources and collection (cont'd)*

Data Source	Number of Participants	Data Collected
Individual Interviews (3 per participant; n=27) (see Appendix E for script)	9	~194, 000 words verbatim transcribed data Interview 1: ~9 hours (45 - 80 minutes each); ~69,000 words (5,600 - 8,800 words each) Interview 2: ~7.5 hours (40 - 70 minutes each); ~58,000 words (2,900-9,700 words each) Interview 3: ~8.5 hours (30 - 80 minutes each); ~67,000 words (3,800 – 13,700 each)
Focus Group Interviews (n=2) (see Appendix E for script)	7[11]	~22 800 words verbatim transcribed data Group 1: 1 hour 27 minutes; ~8,300 words Group 2: 1 hour 5 minutes; ~14,500 words
PST Reflective Assignments	7	~53,000 words; ~150 entries
PST Reflection Responses	Changed course to course	Exit Slips: ~9,000 words; ~110 entries
Non-Participant Observations of teaching practice by a colleague	1 1	Tool for Assessing Responsibility-Based Education (TARE) instrument (see Appendix C) including ~300 words anecdotal CL critical colleague rating scale (see Appendix D): Adapted from TARE instrument and based on Metzler (2011) CL benchmarks including ~100 words anecdotal

[11] While many attempts were made, two participants could not be scheduled for focus group interviews.

Table 6: *Data sources and collection (cont'd)*

Data Source	Number of Participants	Data Collected
Participant (i.e., PST) Rating Scales	18	CL pupil rating scale: Adapted from TARE instrument and based on Metzler (2011) CL benchmarks with ~20 words anecdotal
	15	TPSR student[12] rating scales (TARE instrument) with ~50 words anecdotal

In addition to elaborating on data collected and number of participants (see Table 6), in Figure 5, I provide a sequential timeline of data collection while also emphasizing the interaction among and between courses such as content, models implemented, types of data collected, and who generated the data (i.e., PSTs, non-participant observer, myself as practitioner-researcher).

[12] While pupil is used to describe K-12 students throughout this dissertation, in other's work, such as the title of Hellison's (2011) TPSR Student Rating Scale, "student" will not be replaced by "pupil".

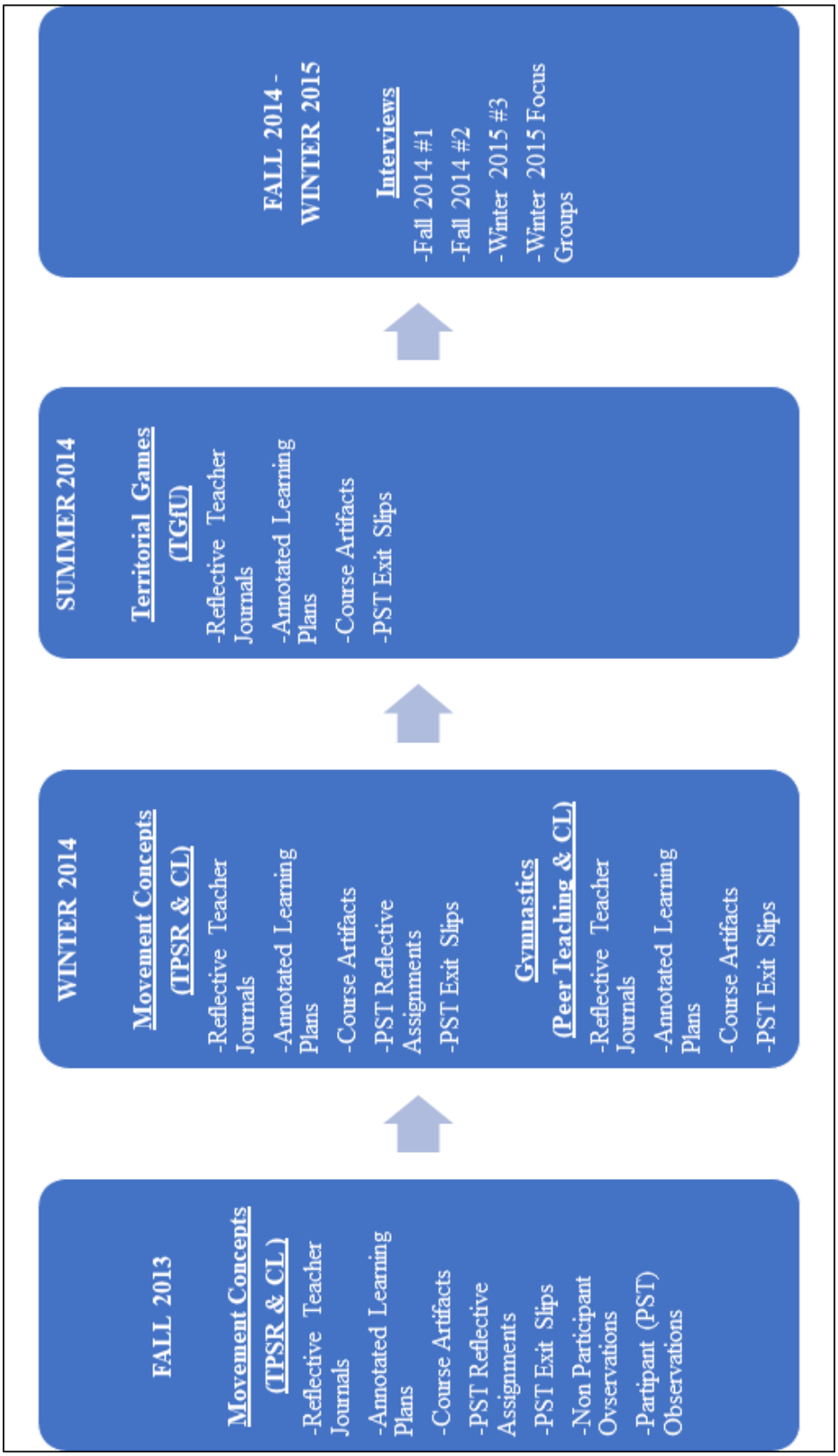


Figure 5*: Timeline of data collection.*

In the following section, I provide a detailed description of the content and quantity of each data source presented in Table 6, as well as information on how each was administered and gathered, and any validated protocols that were used.

4.5.1 Teacher Educator/Researcher Data collection Methods

4.5.1.1 Reflective teacher journals

Framing and reframing beliefs and actions with a view to transforming practice is a hallmark of quality self-study (LaBoskey, 2004). S-STEP requires a look at the self in practice and is concerned with understanding, reflecting upon, and improving practice through interaction and reflexivity (Ovens & Fletcher, 2014).

I used reflective teacher journals to focus on examining my teacher education practice to bring about improvement. Journals can be viewed as commentaries about one's teaching as well as students' (i.e., PST, pupils) learning and may include observations, interactions, thoughts, critical insights, and "a-ha moments" (Fletcher & Casey, 2014; Freese, 2006; Ikpeze, 2016; Thomas & Geursen, 2016). Reflective journals support teacher educator-researchers in examining and problematizing their teaching by reflecting on their practice (Samaras & Freese, 2009; Schön, 1987; Zeichner & Liston, 1996). This *self-critical reflexivity* (Ham & Kane, 2004) becomes a recorded dialogue for the purpose of examining the self-enacting practice (Ritter, 2016).

Comprising approximately 70 entries of 62,000 words, I recorded reflective teacher educator/researcher journals over twelve months. In addition to interviews that record oral data, and observations that provide multiple forms of data, documents such as teacher educator reflective journals enabled me, as the researcher, to obtain my written voice at a

specific point in time. This type of data also allowed for thoughtful reflection for access at a convenient time (Creswell, 2009). While the *journal* entries were focused on my teacher education practice with particular focus on T&L about and through MBP, I also included personal narratives that arose due to ongoing conversations and evolving insights arising from interactions with colleagues, PSTs, and teacher education literature in a broader sense.

4.5.1.2 Annotated Learning plans

My journaling was not limited to *reflection-on-action* (Schön, 1983) but also occurred prior to teaching during the planning phase. Learning plans were constructed with the goal of improving my teacher education practice (e.g., by planning intended teaching actions to correspond with teaching beliefs and a MBP approach) for the benefit of myself, PSTs, and other practitioners. This type of intense and focused planning required hours of reflection from the pre-planning stages to the post-lesson reflection (i.e., initial planning, making connections with the literature, reflecting on what was planned, modifying, and refining). During instruction, these lengthy and detailed learning plans (typically between 8 and 14 pages) were also annotated with questions, ideas, and thoughts that I further reflected on post-class. Naturalistic participant observation was also recorded on the learning plans as PSTs were involved in the teaching-learning context of the courses. Observation complemented the interviews by allowing data to be collected in a natural field setting, providing first-hand experience with the participants, and offering the opportunity to record data as it occurred (Creswell, 2009).

4.5.1.3 Course artifacts

Visual aids provided a snapshot of each course offering with respect to ways concepts and content were delivered, and ultimately what information was considered important enough to be reinforced in this way. Examples included posters, images, or handouts (e.g., movement concepts, TPSR responsibility goals, CL roles, patterns and formations for dance and football, and model benchmarks) and flip-charts pre-constructed and co-constructed with, for, and by PSTs (e.g., models' lesson format, models' benchmarks, group choreography, using CL roles to create divergent and convergent movement problems). As a data source, visual aids comprised between 30 and 45 artifacts per course. Other course artifacts (approximately five to ten sheets per course) such as syllabi, outlines of daily topics and readings, and assessment guidelines provided a view into how the course was transforming over time. As well, electronic class postings such as emails, evolving course content, news items, and post-class teacher reflections and additions were analyzed. These artifacts (see Table 6) served as a means to analyze the shaping and reshaping of course content, context, and pedagogy based upon the who, what, where, when, why, and how of the documents production and usage (Denzin & Lincoln, 2011; Punch, 2009).

4.5.2 PST Data Collection Methods

4.5.2.1 Interviews in qualitative research

Conducting interviews is the most prominent data collection tool in qualitative research, considered by some to be a key methodological tool (Coll & Chapman, 2000; Punch, 2009). Researchers hope to capture the words, language, and context of the

interviewee as part of an "evidence-gathering process" (Pinnegar & Hamilton, 2009, p. 116). Interviews can be used to support or question researcher observations, reflections, perceptions, and inferences (Pinnegar & Hamilton, 2009). This methodological tool is a "good way of assessing people's perceptions, meanings, definitions and constructions of reality" (Punch, 2009, p. 144). Within self-study, interviews are also a commonly used data collection tool (Kosnik, Cleovoulou, & Fletcher, 2009). Supporting LaBoskey's (2004) five characteristics of quality self-study, interviews are valued as supporting researchers in gaining in-depth data on specific topics (Kosnik et al., 2009).

4.5.2.2 Individual interviews

For the purposes of this S-STEP research, I constructed and conducted semi-structured individual interview scripts (see Appendix E) that focused on PSTs' experiences of their learning and my teaching using MBP in PETE. I chose semi-structured interview protocols in order to draw comparisons across responses to interview questions, but also to allow for deviation from the questions in order to remain open to important but unforeseen ideas, learning, and/or beliefs (Lankshear & Knobel, 2004). In this way, semi-structured interviews offered a structure through which contexts, ideas, learning, and/or beliefs could be described and then more deeply explored with subsequent questions (Pinnegar & Hamilton, 2009). Lastly, semi-structured interviews provided the structure I needed in order to focus my investigation on T&L about and through MBP in PETE.

I conducted 27 semi-structured interviews with PSTs after the completion of all courses and after all grades had been released by the Office of the Registrar, in accordance with ethics approval (see Appendix F). Interviews were transcribed verbatim and produced

approximately 194,000 words of data from approximately 25 hours of voice recordings. See Table 6 for detailed breakdowns of interview data.

Guiding questions developed from the research questions were used as the foundation of PST semi-structured interview scripts and prompts (see Appendix E). For instance, the questions below relate to what I learn about implementing MBP in PETE by examining PSTs' experiences that can then be applied to the development and articulation of my pedagogy of physical education teacher education which in turn may also contribute to broader understandings of teacher education practice:

> How do you feel learning about and through MBP can apply/does not apply to improvement in practice (the teaching and learning of PE or other courses)?
>
> Now that you've been removed from MBP for close to a year, and after reflecting on your experiences with what and how you've learned MBP in [Movement Concepts, Gymnastics, and Territorial Games] what advice would you give me in order to better meet your needs in learning about and through MBP throughout the course?

The interview questions allowed participants to provide historical information; add to information collected during observation of course participation and course work; and allowed the researcher some control over the line of questioning (Creswell, 2009).

4.5.2.3 Focus group interviews

As discussed at the beginning of this section, interviewing is a commonly accepted approach to data collection in qualitative and self-study research (Coll & Chapman, 2000; Kosnik et al., 2009; Punch, 2009). I constructed focus group interview scripts (see Appendix E) to complement individual interviews as it is believed that the interaction of the group may reveal ideas, thoughts, and beliefs otherwise hidden (Punch, 2009). In focus groups, the

interviewer takes on the role of moderator or facilitator to a focused group discussion (Punch, 2009). Interviewing in groups often elicits responses and data that extend beyond the individual thoughts and memories of one person (Goldman, 1962). Hence, focus groups can yield rich data and powerful knowledges and insights (Creswell, 2007; Kamberelis & Dimitriadis, 2005, 2011). They are "particularly useful for accessing alternative points of view, obtaining insights into group consensus or divergence..., and for clarifying the researcher's in-process interpretations garnered or developed from already collected data" (Lankshear & Knobel, 2004, p. 208). Focus groups also tend to be enjoyable for participants, since humans are social beings (Patton, 2002). Adult focus groups/small group interviews typically involve groups of no more than 10-12 participants (Lankshear & Knobel, 2004; Leedy & Ormrod, 2013).

As part of the data collection methods, I facilitated two focus groups interviews after the completion of all courses and after all grades had been released by the Office of the Registrar in accordance with ethics approval (see Appendix F). Two groups of PSTs (n=3, n=4) were brought together to share their experiences. This resulted in approximately 8,300 and 14,500 words of data respectively, comprising a total of 22,800 words of data. Even though the first focus group interview had fewer participants (n=3), it lasted approximately 90 minutes, whereas the larger group (n=4) had reached saturation at about 65 minutes.

4.5.3 Participant and nonparticipant observations

Observation has been extensively employed by education researchers (Foster, 1996). Within this S-STEP research, both participant (PST) and nonparticipant (colleague) observation were used as data. Nonparticipant observers are not involved in the process

being observed and often use structured observation tools (Lankshear & Knobel, 2004; Punch, 2009). Conversely, participant-observers are fully immersed and directly engaged in the context being studied (Lankshear & Knobel, 2004; Leedy & Ormrod, 2013). Although usually accompanied by unstructured observations, participant observation can also consist of structured observation tools (Lankshear & Knobel, 2004). Self-study advocates argue that "those personally involved in a setting are more likely to understand it; hence participant observation is important for knowledge generation" (Beck, Freese, & Kosnik, 2004, p. 1261).

One of the main reasons for me to employ observations was to provide a source of data that offered insights into the extent to which I was teaching each pedagogical model with fidelity. It has been suggested that model fidelity highly affects the extent to which the pedagogical model being implemented meets the purposes for which it was designed (Metzler, 2017; Pascual, Escartí, Llopis, Gutíerrez, Marín, & Wright, 2011). That is, it is important to consider the extent to which the practices and strategies of the teacher or teacher educator align with the benchmarks and T&L principles of each pedagogical model (Metzler, 2017). Bearing this in mind, a colleague observed my implementation of TPSR using the Tool for Assessing Responsibility-Based Education (TARE). This instrument involved interval coding of observable teaching strategies, rating scales of Personal-Social Responsibility Themes and Student [Pupil] Responsibility, as well as anecdotal comments. Data collected were in the form of rating scales and approximately 300 words of critical observation. In the absence of a similar tool to assess my implementation of CL at the time

that I was conducting this research[13], the TARE, in combination with Metzler's (2011) teacher and pupil benchmarks were used to produce a CL observation tool (see Appendix D). In producing this document, TPSR benchmarks in the TARE validation tool were replaced with CL benchmarks (see Metzler, 2017). Unlike TARE, this CL benchmark assessment tool has not been tested for content validity and inter-rater reliability. However, it did provide a general guide for the observer in assessing the level of fidelity for *both* teacher and pupil benchmarks. One non-participant colleague observed a two-hour class while completing this rating scale tool, including approximately 50 words of anecdotal data. Within a week of the observations, and after reviewing the rating scales and anecdotal comments, I met with the observer to discuss the results and seek a deeper understanding and clarification. I made notes on the observation sheets about this discussion.

It has also been suggested that objective benchmarking is insufficient in understanding the complexity of a constructivist learning environment, whereas an insider's perspective supported a clearer understanding of fidelity of implementation (Rovegno & Bandhauer, 1997). In my research, PSTs also provided an insider's perspective of model fidelity using both the TARE instrument and CL observation guide. PSTs (n=18) completed

[13]Although Dyson (2010) had developed the Cooperative Learning Validation Tool (CLVT) in 2010 prior to my data collection, it remained an obscure tool not readily appearing in literature searches. Since the time of my data collection it has been implemented and refined as part of research presented at the American Educational Associations International Conference (Casey, Goodyear, & Dyson, 2013). These researchers have continued to test the tool's inter- and intra-observer reliability in other studies (e.g., Casey, Goodyear, & Dyson, 2015). As well, two years after data collection for this study, Atxurra, Villardón-Gallego, and Calvetescale (2015), designed the Cooperative Learning Application Scale (CLAS) to measure the level of application of Cooperative Learning in Higher Education which comprised seven dimensions: Positive interdependence, interaction, social skills, group reflection, heterogeneity, assessment and tutoring. Neither of these tools are, as yet, widely implemented to measure CL model fidelity. The observation rating scale I used for this research was developed using the validated Tool for Assessing Responsibility-Based Education (TARE) in which the TPSR indicators were replaced with Metzler's (2017) CL benchmarks. This observation rating scale, thereby, served the purpose of providing a source of data that offered insights into the extent to which I was teaching each pedagogical model with fidelity.

the TARE scale with approximately 50 words of anecdotal comments about their observation. Fifteen PSTs also completed the CL guide, including approximately 20 words of anecdotal data. In subsequent classes, after reviewing PST feedback, I elicited verbal confirmation and clarification of my interpretations. I also invited anyone who wanted to provide more feedback to either provide it through anonymous written feedback, electronic means, or meet with me about my implementation of TPSR and CL.

4.5.3.1 Pre-service teachers' reflective assignments and exit slips

Pinnegar and Hamilton (2009) suggest that "as much as possible, if gathering data from students [pupils], seek to embed data collection tools into the student [pupil] assignments…[as] a purposeful part of the students' [pupils'] educational experiences in the class" (p. 110). Interacting with PST voice in the form of reflective assignments (approximately 150 entries totalling about 53,000 words), as well as feedback in the form of exit slips (approximately 9,000 words in 110 entries) figured prominently in understanding, reflecting upon, and improving practice. For example, since PSTs were guided toward implementing a pedagogical model during their teaching, their reflections on ways in which their teaching was both effective and ineffective, why they felt this way, and ways that it could become more effective could have revealed thoughts on learning about and through MBP.

In-class PST reflection (e.g. exit slips, tickets *out* the door, and tickets *in* the door) more explicitly sought PST views on MBP. An excerpt from a ticket in the door asked:

> What are some ways that you, as the instructor of a course, can address the class not meeting expectations (cooperation, caring, responsibility, focus, effort…)? Why would you address it in these ways? How did your

> knowledge in, about, and/or through pedagogical models (CL, TPSR or Peer Teaching) help inform your response?

In addition to reflecting on their teaching and providing in-class written feedback, a reflection assignment was titled "Making Connections." This title was used to keep the purpose of the assignment—to make connections between the theory and practice of instruction within a physical activity setting—at the forefront. One example of a prompt for PST reflection was: How will you apply Making Connections (i.e., your thoughts, feelings, and beliefs) when you are on "the other side of the desk?" (i.e., the teacher) (Lortie, 1975) (October 18, 2013).

4.6 Data Analysis

Given that "most claims about learning are largely dependent upon the context of the learning environment…the search for universal type laws of learning which apply equally well to all contexts has been largely abandoned" (Clarke & Erickson, 2004, p. 45). As is the case with most interpretive research, in this study, I also intended to search for a detailed snapshot of participant experiences (i.e., mine and those of PSTs) at a certain place in time rather than seeking generalizations that might apply to other populations. However, readers may still find instances that "ring true" for situations that they face in their particular contexts, which may inform and deepen their understanding of teacher education practice (Bullough & Pinnegar, 2001; Loughran, 2004; Punch, 2009). Applying this concept to self-study of practice, Fletcher (2017) acknowledges:

> Self-study of practice researchers do not necessarily seek answers to their problems; rather, knowledge of the self and of practice is reframed and an understanding about the complexities of professional practice is revealed. Importantly, these insights are partial and temporary, and the

> acknowledgement of the fleeting nature of understanding provides motivation for the researcher to continue inquiring into practice (p. 59).

With these principles in mind, data analysis proceeded both inductively and deductively in line with important concepts identified in the theoretical framework.

4.6.1 Inductive analysis

First, inductive analysis involved reading, coding, and re-reading all components of the data to generate themes across cases without "mapping" theoretical concepts onto the data. This method of content analysis and constant comparison was used to draw out categories or themes from the data without mapping theoretical concepts onto the data (Corbin, Strauss, & Strauss, 2014). For example, as I planned for the next class or course, I read and re-read my reflective journals and learning plans coding recurring instances where I experienced dissatisfaction and confusion and was searching for understanding. This is reflective of a modified grounded theory approach to analysis (Charmaz, 2011; Glaser & Strauss, 1967; Punch, 2009), and allowed new and unexpected insights to be considered.

These interpretations of teaching and learning experiences were consistently compared to others' interpretations (e.g., PST exit slips, verbal feedback, written reflections, and discussions as well as collegial conversations), revealing contradictions and moments of agreement. These contradictions or moments, when a new understanding of practice is revealed, have been labelled by others as *a-ha moments* (Fletcher & Casey, 2014), *turning points* (Bullock & Ritter, 2011), and *tensions* (Berry, 2008). During times when I came to a new moment of understanding, for example ways in which I could change my practice to support PSTs understandings of MBP (see results chapters), I then implemented changes within my practice. This cycle of planning, action, and fact-finding about the result of the

action (Lewin, 1946, p. 38) supported both *reflection-in-action* and *reflection-on-action* (Schön, 1983), and impacted decisions I made within my current and future practice. In this way, I let the identification of concepts, themes, and ideas be guided by the extent to which the research questions and purpose were evident, rather than by pre-existing theories (Casey & Fletcher, 2012).

4.6.2 Deductive analysis: Applying theoretical constructs

A deductive approach to analyzing the data was then applied where important theoretical constructs were considered. This occurred at various phases of the research– during courses, post courses, pre-courses, and as new data was collected post MBP implementation, such as interview data. For the purposes of this S-STEP research, three theoretical concepts informed deductive data analysis. Specifically, I searched the data for concepts that supported: understanding of the utility of using MBP and important steps in developing that approach (e.g., the principles, purpose, and steps in using TPSR, CL, Peer Teaching, and TGfU); the development of principles of practice for implementing innovative practice (i.e., MBP) in PETE; the notion of a pedagogy of teacher education (i.e., learning about teaching, learning about learning, and teaching about teaching) (Loughran, 2006), and socializing experiences of both myself and PSTs (i.e., Occupational Socialization Theory—see Chapter 1). Texts from data (e.g., transcripts, observations, reflections, etc.) were read with these concepts in mind. For instance, regarding MBP, I analyzed the data looking for moments when my teaching about teaching had a clear impact on PSTs' learning about learning or learning about teaching. In turn, I was also looking for moments when PSTs' experiences of learning about teaching led to a change in how I taught about teaching. I also

coded instances of teaching about teaching as part of developing a pedagogy of teacher education and instances when acculturation, (secondary) professional socialization, and (secondary) organizational socialization appeared in the data. In the following sub-sections, I explain how these theoretical ideas informed my deductive analysis.

4.6.2.1 The development of a personal pedagogy of physical education teacher education using MBP

Examining my pedagogy of physical education teacher education practice in terms of T&L about and through MBP required a theoretical framework based in teacher education. As explained in Chapter 2, I used Loughran's (2006) pedagogy of teacher education to help explain and better understand ways PSTs and I grappled with the complex relationship between learning about learning, learning about teaching, and teaching about teaching. In order to simultaneously understand the connections and differences between these concepts, it is worth quoting Loughran's ideas at some length:

> Students of teaching [PSTs] need to be conscious of their own learning so that they overtly develop their understanding of the teaching practices they experience in order to purposefully link the manner in which they learn in a given situation with the nature of teaching itself. Therefore, for students of teaching [PSTs], their learning agenda includes learning about the specific content being taught, learning about learning and learning about teaching. All of these inevitably shape their developing understanding of the complexity of teaching and learning but may not be fully appreciated if not explicitly linked to their learning agenda. (pp. 4-5).

Similarly, just as the student of teaching [PST] is confronted by the need to pay attention to both the content and the manner of teaching, so too is the teacher of teaching (i.e., teacher educator).

With this in mind, Loughran's (2006) *Developing a Pedagogy of Teacher Education* provided focus for my investigation into the highly complex issue of improvement in teacher education practice. Thus, the analysis for this study involved identifying and coding instances when both myself and/or PSTs were *learning about learning*, *learning about teaching*, and *teaching about teaching* about and through MBP in order to inform the development of a pedagogy of physical education teacher education using MBP. Focusing data analysis on these three crucial aspects of developing a pedagogy of teacher education supported me in identifying my current teacher education practices that contributed to both my and PSTs' learning about learning, learning about teaching, and teaching about teaching and the development of specific principles of practice that can support the implementation of MBP in PETE.

4.6.2.2 Occupational Socialization

Challenging myself and PSTs to consider innovative approaches to T&L also requires attention to theories of socialization. Concepts from the OST literature were used to shape the identification, coding, and examination of data from my research. For example, analyzing data deductively using OST literature supported me in identifying times when my 16 years of organizational socialization in K-12 PE interfered with the enactment of my evolving beliefs as a teacher educator (see Chapter 5). In addition, deductive analysis considering OST informed my assumptions about ways PSTs might be encouraged to face their acculturation and apprenticeship of observation during their secondary professional socialization (see Chapter 6).

Following these steps, the inductive and deductive analysis was compared and combined. Salient themes were identified that best addressed the research questions, represented both my experiences and PST experiences based on the interpretive analysis that took place, and acted as exemplars that may "ring true" for readers situated in PETE contexts (Bullough & Pinnegar, 2001; Casey & Fletcher, 2012; Fletcher & Casey, 2014; Fletcher et al., 2016; LaBoskey, 2004).

4.7 Building Trustworthiness

The fifth of LaBoskey's (2004) characteristics of quality self-study positions validity as a process grounded in trustworthiness. As previously discussed, the thoughtful interaction of multiple data sources and perspectives, as well as making connections with the larger context of educational literature, assists others in determining the findings as trustworthy and meaningful. Further to this, Feldman (2003) suggests that in order to have good reason to trust the findings of educational research to be true we must:

- "Provide clear and detailed descriptions of how we collect data" and in so doing "make explicit what counts as data in our work" (see previous section on Data Collection Methods)
- "Provide clear and detailed descriptions" of how the data was transformed into findings (see previous section on Data Analysis)
- Include both "multiple sources of data" and "multiple representations that support and challenge one another" (see Table 6, Figure 5, and previous sections on Teacher Educator/Research Data Collection Methods and PST Data Collection Methods)
- "Provide evidence of the value of the changes in our ways of being teacher educators" (see Chapters 5-8) (pp. 27-28).

In the next section, I continue to build on the trustworthiness of my findings, examining the development and articulation of a personal pedagogy of physical education teacher education using MBP.

4.7.1 Ability to conduct ethical and credible research

I have taken many steps to increase the confidence PSTs and readers have in my ability to conduct research that attends to ethical considerations and offers credibility of knowledge claims. I detailed my professional and educational background to PSTs on the syllabus and during the first class as a way to model sharing as part of the process of developing community. Furthermore, I provided all details about the research and any details that I could ethically share about past research. These steps were taken in part to foster PST and reader confidence in me as a researcher who will not abuse my perceived power role as a former instructor, but who will be honest and just in my ethical implementation of the study, ultimately supporting the credibility of the study and knowledge claims.

Within this chapter, I also devoted an entire previous section to situating myself within this S-STEP research. Exposing possible biases was approached through consideration of my experiences as a learner, teacher, and researcher. I am constantly reflecting on experiences with the intent of providing context for my interpretations and meaning-making. In doing so, I am consciously considering not only what I left out, but whether what I included was merely supporting my views of self rather than challenging them (Bass, 2002). Credibility was further strengthened by comparing multiple data sources and perspectives in seeking to learn about and transform my practice for my benefit and that of the larger education community (LaBoskey, 2004).

4.7.1.1 Methodological Issues/Ethical Issues

Further detailing my ability to conduct ethical and credible research, there are methodological issues that need to be addressed, such as the role of the researcher, ethical considerations, and credibility of knowledge claims. As both the instructor of the course and researcher of the study, I was in a role of perceived power, since I ultimately evaluate PST work. Accordingly, several measures, as discussed below, were taken to demonstrate respect for participant autonomy and welfare such as protection of confidentiality and privacy, disclosure of newly discovered risks and benefits, permission for participants to withdraw from the research, maintenance of participant welfare, and the provision of the results of the research to participants (Emanuel, Wendlers, & Grady, 2000). However, it also worth noting that when the researcher is a teacher educator who is researching their practice, then data collection falls into the category of data that would have been produced regardless of the research, and as such, presents a low level of ethical conflict (Mitchell, 2004).

Once my research ethics proposal was officially approved, and standards had been met to the satisfaction of the Interdisciplinary Committee on Ethics in Human Research (see Appendix F), PST participants were recruited. At the beginning of each course, a third party who had no connection to any of the courses I taught introduced the research project to the PSTs, answered any questions, and provided PSTs with information and consent forms (see Appendix F). Information given at this time included the purpose of the research, its procedures, potential risks, benefits, and alternatives so that participants could make an informed and voluntary decision whether to enrol and continue to participate (Emanuel et al., 2000). PSTs were informed about how their anonymity would be protected, at first from me as the researcher, and then by the use of pseudonyms for all identifying information such

as their name, names of places (i.e., post-secondary institution, towns/cities). As well, the researcher followed up the initial recruitment by inviting PSTs to participate via email. As the researcher and teacher, I did not know who the participants were until completion of all course work and submission of grades for all course work.

PSTs' work provided an important and highly relevant data source. Since this is work that would have been produced by the PST regardless of the study, this data source demonstrates a low level of ethical conflict (Mitchell, 2004). Because I did not know the identity of the participants until after all course work had been completed for all courses, it was necessary to record in-class data such as PST comments, feedback, and answers to questions with their names recorded by these field notes. Once PST participant names were revealed to me, these data could be matched to those participating in the study. In addition, electronic communication and electronically submitted course work has remained accessible to me as the instructor. However, only data from consenting PSTs, and only data for which they provided consent was used to inform the research (see Appendix F).

Another source of data (end of class reflections and exit slips) was anonymous and placed in an envelope by the PSTs themselves. These comments were used immediately to improve my instruction and course content. Therefore, although they could not be linked to particular PSTs, they did contribute to my development as a teacher educator, which I may have reflected on while journaling.

At each interview, I detailed the multiple procedures being used as a means by which to provide PSTs with more information about the study, how it was being conducted, and in which ways their voice was intended to be used to affect change before each interview (see Appendix E). I continued to reiterate the purpose of the research and my intent to use the

data to improve my practice, improve future PSTs' experience, and possibly affect programmatic change at the beginning of each interview. Furthermore, I endeavoured to be transparent by openly addressing concerns as they arose, providing reminders of the potential benefits of participation in the study, (e.g., deepening participant understanding, increased support in becoming a future professional, and improved future practice) and obtaining their consent to become involved in, continue in, or withdraw from the research. As well as being told the procedures prior to consent and at the first individual interview, each interview thereafter, participants were asked if they would like to review any information in detail.

In further building on the trustworthiness of the data, reciprocity must be developed between the researcher and the students (e.g., pupils, PSTs) (Creswell, 2009). Reciprocity can be defined as "an ongoing process of exchange with the aim of establishing and maintaining equality between parties" (Maiter, Simich, Jacobson, & Wise, 2008, p. 305). Initiating and developing relationships, and exchanging knowledge and information are all ways to develop reciprocity (Maiter et al., 2008). Having purposeful and meaningful icebreakers the first two days of classes as well as having a potluck with the PSTs at the end of week one initiated relationships. Being relational each and every day before, during and after class by saying hello, wishing PSTs a good day, having informal but intentional chats, sharing announcements about events and/or personal accomplishments, intentionally setting aside relational time as part of the learning plan (as required in a TPSR approach), and having an open-door policy for any PST in need, all worked towards a high degree of reciprocity. The interviewing process (Glesne, 2006), including focus groups (Maiter et al., 2008), also provided increased reciprocity. Participants seemed to find a sense of importance

by having me, both their instructor and the researcher, listening carefully and seriously (Glesne, 2006). Focus groups also offered an opportunity to be part of a cohort and increase the sense of belonging (Maiter et al., 2008). Planning group meetings and individual reflections (part of TPSR learning plans), using CL strategies purposefully designed to support the development of learning with and for each other (Metzler, 2017), and being cognizant of using *deliberative questioning* (Cooper & McNab, 2002; LaBoskey, 2004), were specific strategies used to influence reciprocity. Modelling reflective practice during and after classes was practiced in many ways. Stopping class to verbally interrogate my practice with PSTs, soliciting anonymous written feedback and critique of my practice from PSTs, applying PST feedback into future classes, and sending electronic reflections about class all helped create a community of PSTs all contributing to securing reciprocity. In these ways, there can be a heightened expectation that honest answers (confirmation of beliefs about teaching practice and negative cases) would be shared due in part to the trust developed between the researcher and PSTs as well as between PSTs themselves (e.g., during class verbal feedback and focus group interviews).

4.7.2 Member Checks

Dependability of interpretations was increased through member checks. Transcripts of interviews and focus groups were sent to participants as a way of member-checking (Punch, 2009), where participants are provided with an opportunity to check their responses and add, modify, or delete passages that do not accurately reflect their thoughts, views, and experiences. This member-checking strategy is used to increase the trustworthiness and authenticity of the research process (Creswell, 2009; Denzin & Lincoln, 2011; Lincoln &

Guba, 1985). Following member-checking, transcripts were coded, identifying important incidents, concepts, and themes.

4.7.3 Negative Cases

In reducing reporting bias, negative cases were also included. Situations, circumstances, and descriptions that did not support researcher interpretations provided evidence that attempts were made to develop other constructions and interpretations of the experience, thereby adding rigour to the study (Pinnegar & Hamilton, 2009; Smith & McGannon, 2017). For example, while I believed I was approaching T&L from a social constructivist perspective, upon analyzing data, it became apparent that I had not achieved this goal (see Chapter 5).

Chapter 4 Summary

Contextualizing oneself within S-STEP research is central in both honestly examining and improving one's practice as well as extending S-STEP beyond the self with applications to others' contexts and the wider field of teacher education. This contextualization requires ontological and epistemological reflection and conviction as the purpose and research questions of any study are bound by these beliefs. Acknowledging my relativist, emic, social constructivist perspective provides context for the choice of S-STEP as the research design, as well as the way in which data were collected, analyzed, and the trustworthiness of my interpretations. Ultimately, this chapter is the bridge between the previous three chapters and the next three chapters, where findings are shared for critical review.

Results Chapters

S-STEP provided a research approach and methodological framework to more deeply examine the development and articulation of a personal pedagogy of physical education teacher education using MBP. In addition, S-STEP helped extend the ongoing critical analysis of my teacher education practice beyond myself. I did this by concurrently examining my practice in relation to the experiences of PSTs. I also made connections between my preliminary insights developed through examining my practice with the teacher education literature—an essential element in showing how the issues confronted by the self are related to public issues and concerns (Vanassche & Kelchtermans, 2015)—and by developing principles of practice which informed my personal pedagogy of physical education teacher education.

In order to present my analysis in a coherent manner, three results chapters follow. In Chapter 5, I examine my experiences of T&L about and through MBP as a teacher educator in four PETE courses. In Chapter 6, I examine PSTs' experiences learning about and through MBP in the four PETE courses I taught. In Chapter 7, I synthesize insights developed from Chapters 5 and 6 to articulate several principles of practice for implementing MBP in PETE.

Chapter 5 - My Experiences as a Teacher Educator Teaching and Learning About and Through Models-Based Practice

In this chapter, I provide results derived from investigating the first of the four research questions from this study, specifically: *What do I learn about implementing innovative practice in the form of MBP in PETE by analyzing and understanding my experiences of teaching and learning as a teacher educator?* As described in Chapter 4, reflective journals, learning plans, syllabi, and statement of teaching philosophy, in addition to PSTs reflections, course work, and interview transcripts, were the data analyzed to generate insights into my beliefs, intentions, and actions about teaching and teacher education.

5.1 Improving Teacher Education Practice by Challenging Beliefs, Intentions, and Actions

Teachers' beliefs have strong influences on their pedagogical decisions and actions (Attard, 2014; Knopp & Smith, 2005; Pajares, 1992; Smylie, 1995). Therefore, as Smylie (1995) argues, "in order to change practice in significant and worthwhile ways, teachers must not only learn new subject matter and instructional techniques, they must alter their beliefs and conceptions of practice, their theories of practice, and their 'theories of action'" (p. 95). However, aligning beliefs and actions is easier said than done (Berry, 2008; Bullock, 2009; Fletcher & Ovens, 2014; Lawson, 1983a; Loughran, 2006; Russell, 1997). For example, Loughran (2006) suggests that teacher educators' professional knowledge influences their teacher education practices. Accordingly, Loughran (2006) advises an "ongoing need to articulate one's understandings of practice (purpose, beliefs and intent) in

order to access the reasons for teaching actions, and perhaps more importantly, the insights into one's underlying philosophies of teaching and learning about teaching" (p. 84).

Beliefs strongly influence all aspects of teachers' and teacher educators' practice. In fact, "virtually all teacher educators begin their work by teaching as they themselves were taught" (Russell, 2005, p. 144). Therefore, it was imperative that upon my entry into a new occupational context as a teacher educator in a university setting, that I began to examine my beliefs about teaching and teacher education developed over my 17 years as an educator. S-STEP methodology supported me in examining ways that my actions are/were consistent with my evolving beliefs (LaBoskey, 2004; Russell, 2007). Analysis of the data led to finding that my educational beliefs and teaching actions (in the form of planning, instructional decisions, and teaching practice) did not always align. Coming to this realization has provided me with new problems, challenges, and insights about how to improve my teaching practice.

There are two main sections of this chapter that follow: (a) *Articulating My Beliefs About Teaching and Teacher Education* and (b) *Reframing My Practice*. In both sections, I examine the ways my beliefs and actions about T&L about and through MBP aligned/did not align. By describing and interpreting issues that arose through the research, I identify one overarching issue related to my beliefs that impacted all other aspects of my teaching practice: *enacting a social constructivist perspective*. I discuss perceived successes and challenges in enacting a social constructivist perspective in terms of building community, supporting PSTs in assuming a future professional's perspective, and unpacking my practice with PSTs. In the final section of the chapter, Reframing My Practice, I elaborate on two other related sub-issues: (a) integrating personal perspectives with course purpose, and I

again return to (b) unpacking my practice with PSTs. Within each sub-issue, I consider the extent to which my beliefs, ideas, and perspectives, and resulting actions and inactions, helped me and PSTs come to terms with the complexities of T&L using MBP. Examining these issues guides the reconsideration of my beliefs about teaching and teacher education, leading me to reframe my assumptions that would inform the development of principles of practice for implementing MBP and the development of a pedagogy of physical education teacher education using MBP.

5.2 Articulating My Beliefs About Teaching and Teacher Education

As a teacher of teachers my beliefs about K-12 teaching should be made explicit. My beliefs about teacher education are highly connected to my philosophy of the purpose of physical education as a school subject. I believe K-12 physical education to be part of a well-rounded education for children and youth. Approached from a (w)holistic perspective, physical education should provide an emotionally supportive environment focused on strengthening cognitive, physical, and emotional connections to physical activity in order to support a physically active life. In working towards this goal, students should be provided opportunities to critically co-construct deep and meaningful understandings of themselves in relation to their and others' current and past experiences as well as the social-cultural contexts of physical activity and sport. Ultimately, the goal of K-12 physical education is to foster positive feelings about self in relation to physical activity in ways that support the development of confidence, competence, and emotional connection needed to be physically active beyond the context of physical education. While there are many ways this might be achieved, MBP is one pedagogical approach that is considered to be student-centred,

providing diverse, rich, and meaningful physical activity experiences that promote a physically active life (Bailey et al., 2004; Casey, 2014, 2017; Goodyear, 2015; Kirk, 2010, 2013; Lawson, 2018; Lund & Tannehill, 2015; Metzler, 2017; Metzler & McCullick, 2008).

5.2.1 Social Constructivism

At the beginning of my second year as a full-time sessional instructor at the post-secondary level, I was assigned a supporting role (i.e., school liaison) in a PE methods course. I was asked by the lead professor to provide a brief description of my teaching philosophy for the course syllabus. After many years of implementing TPSR at the K-12 level, I most highly identified with a humanistic approach. This led me to write the following as part of my teaching philosophy at that time:

> My approach to teaching physical education is based strongly on Dr. Don Hellison's "Teaching Social and Personal Responsibility through Physical Activity." The major focus of humanistic physical education is the development of the whole child (i.e., the development of a student's [pupils] emotions, values, self-concept, goals, and needs). Its focus is on teaching and empowering students [pupils] to take more responsibility for themselves and to be socially responsible and sensitive to the rights, feelings, and well-being of others by progressing through stages of development in self-direction. It stresses individual uniqueness, that feelings are more important than knowledge, and that students [pupils] best determine how and what to learn. (course artifact)

While I was comfortable with my philosophy and the ways it had informed my teaching beliefs and actions up to that point in time, I had not considered other philosophies of teaching and teacher education, including how they might be described and enacted. After reading the lead instructor's philosophy and occasionally observing his approach, I began to look more closely into social constructivism as a learning theory. It was something I was only aware of in a peripheral sense at that time (in that I had read about it but had not engaged with it much beyond that).

By the time I had finished my course work and three comprehensive exams as part of my doctoral degree, reading allowed me to more strongly identify with the ideas, beliefs, and perspectives of social constructivism. It is not that I did not align with social constructivism prior to that point; it is that any acknowledgment or understanding of social constructivism had been tacit. As Korthagen and Kessels (1999) suggest, I was beginning to connect my tacit, localized, and situational knowledge and understanding of social constructivism (phronesis) as it related to my personal practice to the "grand theory" of social constructivism (episteme). This enabled me to see the larger picture of teacher education. For example, as detailed in Chapter 4, I now view social constructivism as a helpful theory to represent and help me interpret my beliefs about myself, PSTs, T&L, knowledge and knowing, and learning about and through MBP. Social constructivism holds allure for me because I believe learning to be an interactive process between the educator (i.e., teacher/instructor/leader/coach), learner, and social-cultural environment including past and present experiences (Vygotsky, 1962). This allure has slowly evolved into part of my identity as a learner, teacher educator, and person. For instance, I view my salient learning experiences over the first nine months of my PhD studies—which were largely collaborative and informed by informal and formal discussions—as bringing me closer to identifying with a social constructivist approach. At that time, I wrote in my journal:

> Over and over again I am reminded about how much engaging in a PhD, and I might argue, engaging in any learning in which one is interested, will affect everything from teaching, to home life, to the way we see the world. I think this is proof positive that I am heading down the road of social constructivism, or at least heading down the road to realizing that that may be where I would place my beliefs about learning. (reflective journal, September 15, 2013)

Identifying a growing alignment between social constructivist theory and some of my experiences as a learner and teacher was encouraging. For example, I recognized the enactment of a MBP approach as providing fertile ground within which to explore and experiment with the implementation of my evolving social constructivist beliefs about T&L. As a contemporary critical pedagogical approach that puts the learner at the centre of all pedagogical decisions and promotes holistic development through outcome achievement across multiple education domains (Casey, 2014; Kirk, 2013; Metzler, 2017), I feel that MBP in a broad sense aligns with a social constructivist perspective. For example, within a models-based approach, the educator's selection of which model to use depends largely on pupil needs and interests, and the outcomes desired by and for pupils (Kirk, 2013). As well, some individual pedagogical models that could be chosen as part of MBP are founded on constructivist notions. Indeed, the models most strongly informed by constructivist and social constructivist principles were ones I used in my PETE practice. For example, TGfU "relies ontologically and epistemologically upon pedagogically developed constructivist notions of teaching and learning for its existence and knowledge base" (Singleton, 2009, p. 332). TPSR also aligns with social constructivist theory as it was developed to support pupils' *transfer learning* beyond the physical activity context, as well as *long-term behavioural change* in the form of personal and social responsibility (Hellison, 2011; Metzler, 2017). CL is also representative of a constructivist philosophy (Casey, 2017) as it moves the focus from teacher-centred to learner-centred education by utilizing not only the pupil's own experience to solidify knowledge, but also the experiences of others in cooperatively and collaboratively solving problems (Johnson & Johnson, 1989; Slavin, 1990). Although Peer Teaching is the most teacher-centred of the models used in this study,

it has “evolved from a number of teaching strategies that share the common feature of students [pupils] helping other students [pupils] learn” and as such makes room for a social constructivist approach during instructional interactions between tutors and learners (Metzler, 2017, p. 298). In what might be described as an *aha moment* (Fletcher & Casey, 2014) for me, I came to see how I viewed MBP, not only as a way to meet a diverse range of pupil and PST outcomes and learning needs, but also to identify coherent strategies and approaches that were congruent with my beliefs about learning as socially constructed and my subsequent teaching decisions and actions.

In line with my evolving beliefs that are based in social constructivist theories, I intended to situate myself as teacher educator who acted as a facilitator in the teaching-learning process through the use of inquiry-based and problem-based approaches. These intentions were made clear in my personal teaching philosophy statement written in 2013 and included in all syllabi for courses that were part of my research. In the following passages, I paraphrase some ways I intended to facilitate social constructivist approaches to learning as reflected in course syllabi philosophy statements:

- Building a community where ideas, opinions, beliefs, and questions are valued and encouraged in order to foster a space where PSTs can feel comfortable to share and take risks toward more personally meaningful learning through social interaction

- Encouraging PSTs to begin to situate themselves as a professional by explicitly discussing the how and why of my teaching actions and approaches, what alternatives might be, and what choices they might make

- Learning through both pedagogical models (i.e., CL, TPSR, Peer Teaching, TGfU), all of which are designed to be learner-centred and place the instructor as facilitator, and a MBP approach that places the learners' needs at the centre of all pedagogical decisions. (personal teaching philosophy, 2013-2014)

At the time of writing these statements, I thought that these teaching intentions would support me in approaching T&L through a social constructivist perspective, which would, in turn, support my teaching about and through MBP. However, as I progressed in my S-STEP inquiry, it became clear that the implementation of approaches that aligned with social constructivism proved more difficult than easy, and I found myself struggling to enact a social constructivist approach to T&L about and through MBP.

5.2.1.1 Enacting a Social Constructivist Perspective

Described as messy, complex, sophisticated, and filled with uncertainty (Berry, 2008; Cochran-Smith & Lytle, 2009; Forgasz, 2014; Loughran, 2014a; Schön, 1983), teacher education practice cannot be viewed as a linear process. Yet, in trying to make sense of my teacher education practice, I sought to present it and experience it in a linear way. That is, I approached examining my teacher education practice chronologically, by identifying a challenge, unpacking it, and thinking about it in terms of making future changes as permanent solutions that could be applied to all contexts. I now understand that the humanity involved in T&L (e.g., beliefs and experiences) in the multidimensional/ non-linear nature of contemporary society (Crawford, 2014) cannot be represented in terms of a straight timeline.

This was apparent in the constant struggle between the alignment of my purported social constructivist beliefs and resulting actions as I implemented MBP. There were times when I was operating as a "sage on the stage" (teacher-centred), other times as a "guide on the side" (commonly viewed as learner-centred), and sometimes as "teacher-as-activator" (a position that challenges guide on the side as learner-centred) (Hattie, 2012). I reflected on this struggle in a journal entry about PSTs team teaching episodes:

> I am trying to take a back seat and stay in the periphery. I'm used to not being the centre of the teaching (i.e., not a command style educator), but I am also used to assuming a very active facilitator role, and taking a backseat is difficult. It's hard to watch the students (PSTs) make mistakes and not step in to "correct" it right away. (reflective journal, November 13, 2013)

While I acknowledged the struggle, I was also fairly confident that there were many times and ways in which I was able to enact learner-centred pedagogies compatible with both MBP (where the fulcrum for all pedagogical decisions is the learner) (Casey, 2014), and a social constructivist perspective to T&L. However, through the iterative process of data analysis, I learned that my approaches were also both unintentionally and intentionally modelling teacher-centred pedagogies. Similar to Bullock and Christou (2009), I found that just because I believed I should approach T&L in a certain way did not mean I had the understanding or ability to enact it. My experience reflected every point on a continuum from success to failure.

5.2.1.1.1 Perceived "successes": enacting intended social constructivist approaches to teaching and learning about and through MBP

Analysis of my learning plans showed that, in most instances, I intentionally planned to facilitate social constructivist approaches to learning. These same plans, which I used to record observations and reflections during class, support claims that I often enacted my intended approaches. In the following sub-sections, I demonstrate how I enacted approaches congruent with a social constructivist perspective: (a) planned and enacted community building, and (b) supported PSTs to view teaching from "the other side of the desk" (Lortie, 1975) by simultaneously placing themselves in the role of learner *and* teacher.

5.2.1.1.1.1 Building Community

Fostering a space where PSTs feel comfortable to take risks and share ideas, opinions, beliefs, and questions—in other words, building a sense of community must be a priority in teacher education practice (Kosnik & Beck, 2009). Many researchers have found that both pupils' and PSTs' feelings of comfort, belonging, attachment, and connection (to themselves, peers, educators, and the world) contribute to engagement, enjoyment, and well-being, significantly impacting overall educational experiences (Azzarito & Ennis, 2003; Battistich, Solomon, Watson, & Schaps, 1997; Durlak, Weisberg, Dymnicki, Taylor, & Schellinger, 2011; Fletcher & Baker, 2015; Furrer & Skinner, 2003; Jennings & Greenberg, 2009; LePage, Darling-Hammond, Akar, Guiterrez, Jenkins-Gunn, et al., 2005; Spilt, Koomen, & Thijs, 2011; Watson & Battistich, 2006). Fostering a sense of community may be considered good practice in general, but also with particular implications for the implementation of innovative/unfamiliar practices (such as MBP) and approaching learning from a social constructivist perspective. For instance, expecting PSTs to interrogate their ideas, beliefs, and perspectives through an innovative approach to T&L requires a space where they feel safe and comfortable to take risks. PSTs' interview data confirmed that my community-building approaches were indeed building this type of supportive learning environment. This is evident in the following comment from Elizabeth. At the time of the interviews, she was attending another university and was thus able to provide a perspective other PSTs did not have. She described missing the bonds that had been forged during our courses, but also the opportunity that community building provided for learning:

> I think that community makes it a lot easier to want to go to class. And then once you're there, you know that no one is judging you if you do something wrong…So you got to learn more, and participate more, and ask

> more questions because you weren't scared of what other people had to think…even though we say we don't care about that. Now when I go to class, I don't know as many people, so it's harder for me to raise my hand or comment on something I really feel I know about. So, I really enjoyed that community feeling, and I talk to people all the time about how I miss that. (Interview 1)

This sense of community was built in many ways. For example, regardless of the model being taught or used, I began all classes with a time to share announcements such as events around campus, in the community, or in our lives. This approach highly aligns with the suggested learning plan of one of the first two models introduced to PSTs — TSPR — which values relational time as the beginning of the lesson. However, game-centred approaches like the TGfU model, the fourth model introduced, while aligned with social constructivist perspectives at times, places gameplay as the first learning action/social interaction. Focusing on community building by starting all classes, regardless of the model being taught and experienced, with time to share news and stories and develop comfortability, was one example of enacting my beliefs about T&L as socially constructed. The value of such a pedagogical approach might be lost; however, if the reasoning behind this type of decision remains tacit and is not made explicit to PSTs. The pedagogical decision to foster a sense of community by beginning classes with announcements was then interrogated with PSTs through questioning. I would follow announcement time by asking questions such as "Why do we begin classes with announcements?" (learning plan, September 06, 2013) and, "In what ways do announcements build community?" (learning plan, June 17, 2014). At first, I was met with silence, but in time PSTs engaged with this opportunity to feel comfortable in the social environment of the classroom. For instance, one PST replied that "By opening up the floor to the students [PSTs], it is a good opportunity for

everyone to share stories, news, or things that everyone should know" (anonymous PST, anecdotal record, learning plan, January 20, 2014).

While the types of pedagogical practice that I discussed throughout this section were not always identified by PSTs, their answers served as a platform to discuss community building as the foundation of a supportive learning environment. For example, I viewed community building as a part of good teaching practice prior to this research. However, I can also now rationalize announcements as part of fostering a sense of community, and as compatible with both social constructivist and MBP approaches to T&L. As a result, community building, and in particular the practice of beginning classes with announcements, forms part of my principles of practice for implementing MBP (Chapter 7) and my personal pedagogy of physical education teacher education using MBP (Chapter 8).

Continuing the process of learning through critical and focused questioning, opportunities to build community were also connected to course content and the features of specific pedagogical models. For example, I asked, "Why use CL?" (January 13, 2014). While a variety of answers would have been accepted, I also planned to highlight CL as a good way to build community. TPSR was also connected to community building. In a reflection, I noted that:

> Being relational is worth it—to me and students [pupils and PSTs]. Since being relational is a huge part of TPSR it makes me believe that the very first ever [physical] activity course they [PSTs] participate in should be based in TPSR for the benefit of the students [PST], peers, and the teacher [educator] alike. (reflective journal, November 15, 2013)

While the contents of this reflection were still quite superficial, I was beginning to develop beliefs about ways in which the use of pedagogical models in PETE can support the enactment of social constructivist approaches to T&L by both teacher

educators and PSTs (as future teachers). These reflections were the beginning of the development of principles of practice and a pedagogy of physical education teacher education for using MBP in PETE.

Not wanting to limit the potential of the pedagogical practice of community building as only fostering peer relationships between PSTs, I also worked to develop appropriate relationships with PSTs. For example, in the first two weeks of all classes, I purposefully spoke to all PSTs individually prior to class, asking them about their degree option, about their hometowns, or other questions that would help us begin to develop a relationship. I also extended community building beyond class by frequently reminding PSTs that they could drop by my office to see me anytime, whether it was course related or not, and sending emails about items such as the doctor on campus and intramural opportunities (learning plan, September 25, 2013). Reasons for doing this were based on an assumption that the teacher is an important part of the learning community. For instance, allowing pupils/PSTs to see teachers as members of their class community has been viewed by PSTs as an important component of the teacher-pupil/PST relationship (Fletcher & Baker, 2015). As well, stated at the beginning of this section on building community, developing relationships has links to greater engagement and learning—an ultimate goal of any educator I would suggest. In this case, my pedagogical approaches also created an affinity toward MBP for some. David stated that:

> So, I found the main reason that I'm going to use that [MBP] in the future was more of your teaching methods rather than the MBP. I don't know. You're [Kellie] really good at feedback, and you're really good at being relational and things like that. So, when you bring those things in, you as a teacher, I liked those things. So now when you're just using MBP and bring that in, it gives me like [the thought that], oh I like everything else she does so I'm going to bring this in and try too. (Interview 2)

While I had intended my approaches to build a supportive community conducive to learning, I had not thought about particular applications this practice might have on PSTs' willingness to adopt MBP in their future professional endeavours. This realization supports community building being prominent in both my principles of practice and pedagogy of physical education teacher education using MBP (see Chapters 7 & 8).

Even though community building was a practice I understood as supporting ongoing teacher development (Kosnik & Beck, 2009, 2011), I was unsure of specific ways in which PSTs were interpreting my pedagogical actions that supported fostering a sense of community. In addition to the two interview excerpts above, another example that helped me understand the influence of my pedagogical decisions and corresponding actions was when Brian chose community building as the focus for his resource manual in Gymnastics. Brian noted that I focused on community building strategies such as learning PSTs' names or beginning class with announcements followed with focused questioning about the *why* of the strategy as connected to fostering a sense of community. He continued by recounting ways in which I connected class community and pedagogical models such as CL. As required by the assignment, Brian also provided extensions to my practice by including information from websites and blogs about building class community. The information Brian provided, in turn, supported me in learning more about how I went about modelling community with and for the PSTs—perhaps unintentionally involving me in the co-construction of knowledge. Brian's identification of community building as one of the

major topics of that day's class, and connections he made, confirmed that the emphasis I was putting on this practice was not lost on some PSTs.

In addition to analyzing my notes, observations on learning plans, reflective journals, and PSTs' reflections and course work, interrogating memories can also inform our teaching practice (LaBoskey, 2004; MacPhail, 2014). For example, my recollections of peer interactions between PSTs, and those between PSTs and myself, also support my belief that community was being built in the courses where MBP was being taught and used. I noted progress throughout the term in the ways relationships were developing, which are evident in several examples I observed from the classes. I remember PSTs' shyness and awkwardness during beginning of term potlucks being replaced by ease and chatter by the end of term potlucks. Similarly, hesitation to engage in pre-class activities with anyone other than those they already knew was replaced by PSTs briskly walking into class, dropping their bags, and looking for the nearest person/people to use the equipment with before class formally started. I also remember David sharing with me that by term two (Gymnastics), he and several classmates who had not known each other prior to the Movement Concepts course the term before had now moved into off-campus housing with one another. Anonymous feedback from PSTs on the Tool for Assessing Responsibility Education (TARE) (a validated and reliable measure of TPSR implementation (Wright & Craig, 2011)) corroborated some of my memories. For instance, in reflecting upon my implementation of TPSR, one participant stated: "We have a great class community, and Kellie has really helped us become a close group!" (November 04, 2013). Connections were being made between my pedagogical practices of community building and model implementation. The acknowledgement of the emphasis and role of a sense of community is noteworthy because

the teaching assistant in the Movement Concepts course, who had completed that course a few years before, lamented that when she entered the course, she knew three people and when she left the course she knew the same three people (personal communication, September 19, 2013). Ways in which PSTs felt community building was fostered and contributed to their learning about learning and learning about teaching, the value it had for them as PSTs and people, and the connections it had to MBP are further elaborated upon in Chapter 6.

Intentionally and purposefully building community fostered a space where PSTs felt increasingly comfortable sharing more of their ideas, opinions, and beliefs (i.e., co-constructing their understandings). This is important as a scaffolding tool, as I planned to challenge PSTs to inspect their ideas, opinions, and beliefs from a new perspective (i.e., that of an educator), and with respect to innovative forms of PE practice (i.e., MBP) that were very different from what they had previously experienced (i.e., multi-activity PE-as-sport approach). For example, encouraging PSTs to put themselves in the shoes of the professional was another way I challenged them to recognize and respond to superficial views of T&L (see Darling-Hammond, 2006).

5.2.1.1.1.2 Supporting PSTs in assuming a future professional's perspective: In the shoes of the professional

Because PSTs had never experienced MBP before, I intended to challenge the common assumption that they know how to teach because they had been pupils their whole lives (i.e. apprenticeship of observation, Lortie, 1975). Turning to a social constructivist approach to learning, one way I did this was through *situated learning in PE,* which Kirk

and Macdonald (1998) suggest supports deeper learning for both PSTs and pupils alike. Situating PSTs in contexts that required simultaneously learning through MBP as first-time participants in a models-based approach to PE, and about MBP as future teachers, challenged assumptions based on past experiences as a learner, and implications that may have for future pedagogical decisions and practice. I also encouraged PSTs to reconsider their notions of effective T&L by inviting them to examine my pedagogical practice implementing a MBP approach to the T&L of PE by considering what pedagogical decisions they might make if they were on the other side of the desk (Lortie, 1975) as teacher. For instance, I challenged PSTs to:

> Always ask yourself, "Why?". Always put yourself in the role of the teacher and ask yourself why it would be planned this way? Would you plan it the same way? What would you keep? What would you change? Why do you feel you would change these things? Does it depend on the pupils? On you? Who should it depend on? (learning plan, January 13, 2014)

While I focused on developing deliberative questioning and shared that process with PSTs, it was the emphasis on focused questioning as part of authentic implementation of TGfU that resonated with some PSTs. For example, Craig connected his adoption of asking "Why?" to the continued focus on the cognitive educational domain of PE through all courses which "sunk in" during TGfU (Interview 1). Craig's a-ha moment arose when he was giving a presentation in another course. He reflected that, in the past, he would have positioned himself as sage on the stage, presented his thoughts and ideas, and ended the presentation. But because of the focus on digging deeper into his own learning by continually being challenged to consider "Why?" in the courses he completed with me, he

felt comfortable trying that teaching approach himself. He was astounded by the result stating:

> I tried that approach [asking why] outside the gymnasium. It worked perfect. I had a few questions, and all my other questions were based off of what they [the learners] said. I took one question, and I turned it into 4 or 5 other questions that I had. It got really in-depth because I asked, "How did you feel, and why was that?" It's funny because it seems so obvious now, but that was something that never occurred to me, and I could have used that a lot more in presentations earlier in my career in university. I never asked the why and stuff like that, and I thought about it again, and I thought how much more input I got, and from that point on, I realized what an effective teaching method that was. (Interview 1)

While I had been intentional about supporting PSTs in moving to the other side of the desk by sharing the why of my pedagogical practices, it was Craig's experiences with pedagogical models that forged a connection between questioning and deeper learning. For me, the apparent symbiotic relationship between good teacher educator practice and MBP is another meaningful learning experience that supports the development of principles of practice for implementing MBP and for my personal pedagogy of physical education teacher education using MBP.

For Craig, his a-ha moment was connected to his experiences of learning about and through MBP rather than to my intention of sharing parts of my practice in order to support PSTs' future practice. For David, my focus on sharing the whys of my pedagogical practice supported his understanding of the *why* of MBP and initially contributed to his claim of being "pretty likely" to implement MBP as a future professional (Interview, 1):

> We were in it. In theory. We were practicing it [the theory of MBP], so it was blatant. Everything we did was, "Okay, why did we do this?" It was very blatant that we were trying to practice and get a better understanding of the models. (David, Interview 1)

However, David's interview three comments also made me realize the limitations of simply asking why:

> I really didn't understand what MBP was until we came into these interviews to be completely honest. It was hard to understand, hard to wrap my head around. So, it was challenging, and we didn't really know why we were doing it because we hadn't heard of it and a lot of people hadn't heard of it.

So, while I addressed the why of MBP and shared the reasons for my pedagogical decisions and possibilities for PSTs' future practice throughout all the courses in which David participated as part of this research, his understanding of MBP was most supported by the interview process. When asked about advice, he might give me to support future learners in understanding MBP he suggested:

> Maybe have a wrap up with everybody. Well, there's no way you would have time to do an in-depth thing like this [an interview process] in a course with thirty people at the end of the course. But at the beginning, have your into and your theory of what you're doing and why it is and even at the end. [For example] you did TPSR in the first semester. Wrap it up at the end of TPSR. Tell [ask] them [PSTs] again, "What do you guys [sic] think models-based practice is? What is TPSR, and how do you use it?" And the next term, do the same thing. Intro into Peer Teaching and again TGfU. Start it and end it [with the models]. And if you know that is the last course with them [from a models-based practice approach], just have a big sit down and debate. Yah, debate. Because people are going to have their own thoughts on what it's [MBP] going to be doing for students [pupils]. Yah, a big review would help with people bringing it out of university with them. (interview 3)

David's experiences and informed advice provide me with specific examples of ways in which I might better support PSTs in moving to the "other side of the desk" and stepping into the shoes of the professional, and have subsequently been integrated into my principles of practice and pedagogy of physical education teacher education (see Chapters 7 & 8).

Encouraging PSTs to put themselves in the shoes of the professional and building community were two ways I intended to support PSTs in connecting present learning experiences as part of the PETE program to their future practice. Examination of these two practices supported my learning and development as a teacher educator in ways that also supported growth from PST to future educator. For instance, I came to see community building and the sharing of my pedagogical decisions as both good practice and instrumental in a more holistic pedagogical approach that reflected a social constructivist perspective of implementing MBP. As well, I came to see some limitations in my approaches as well as ways in which I might better support future PSTs learning about and through MBP.

Reflecting on the alignment (or misalignment) of my teaching beliefs and actions led me to see that understanding my practice was not as easy as identifying a series of successes alongside struggles. With every success, there was a related reflection that represented "what ifs?" or "but how does that explain…?" In the spirit of S-STEP research, my investigation was generating more questions than it was providing answers. In the following sections, I unpack some of my perceived struggles of enacting a social constructivist approach in my teacher education practice.

5.2.1.1.2 Ways in which I struggled to enact a social constructivist approach to my teacher education practice

Iterative data analysis supported me in confronting the fact that while I wanted to approach MBP in teacher education through social constructivist approaches, there were many times when I relapsed into teacher-centred teaching, adopting the role of sage on the stage. I identified two main themes that I interpreted as representing what I perceived as

struggles in my enactment of social constructivist approaches to T&L about teaching: (a) integrating personal perspective and course purpose and (b) unpacking my practice with PSTs.

5.2.1.1.2.1 Challenge: Integrating personal perspective and course purpose

Integrating my personal perspective on T&L and my perceived institutionalized expectations about the delivery of physical activity courses at UCR was a challenge that I had difficulty identifying and, as a result, little success in facing. So much so that I often completely abandoned my beliefs about T&L as socially constructed and made the conscious decision to take a command/direct instruction approach to teaching. For instance, the 2012-2013 UCR calendar description clearly stated that physical activity or movement courses would "employ the conceptual approach to teaching physical activity as facilitated through various forms of" (that particular activity, for example, dance). Yet, I often succumbed to what I perceived to be covert pressure to have a high amount of physical activity for PSTs, which resulted in my adopting a teacher-centred style to their learning. Four factors that contributed to misconceptions I had about the role of physical activity courses in a teacher education program were:

(a) UCR course titles that began with the words "Physical Activities Course,"

(b) My prior experiences as a learner in such courses in which vigorous physical activity and competition were prioritized,

(c) A tradition at UCR that physical activity courses were based in vigorous physical activity and competition, and therefore carried an expectation by PSTs that they would be delivered in this way,

(d) The effects of apprenticeship of observation (Lortie, 1975) and acculturation (Lortie, 1975; Lawson, 1983a, 1983b), where emphasis

> was placed on high physical activity rates being equivalent to instructional effectiveness and quality PE.

These assumptions manifested in my struggling to approach teaching teachers in these courses in ways that focused on PSTs' learning to teach, and consequently, PSTs' experiences were sometimes more akin to pupils in a PE program or participants in a PA program.

I remember feeling that I was embodying being a teacher educator who was a "living contradiction" (Whitehead, 1993), because what I felt I had to do was not in keeping with what I believed most strongly supported deeper learning for PSTs. In my reflective journal, I tried to justify my decision to revert to command/direct instruction, feeling a strong pull to incorporate more moderate-to-vigorous activity:

> We were not highly active. We did a lot of thinking, group work, and movement, but not vigorous. I want to work toward more vigorous next day and use command only and get through several dances with a focus on one or two concepts for the day. (reflective journal, November 1, 2013)

Rather than focusing on what we learned about teaching through the thinking, group work, and movement, this short reflection demonstrates that I was consumed with the perceived expectation for vigorous activity above all else, and that I therefore consciously chose an approach to learning which prioritized the physical domain—an approach I predominantly experienced as a learner. While I identified all three educational domains—cognitive, affective, and physical—as being present during class, I abandoned the holistic approach to learning to teach MBP that valued knowledge and understandings gained from social interaction and discussion. In short, I abandoned my social constructivist beliefs about learning. At this point, my teaching actions were more strongly influenced by my apprenticeship of observation (Lortie, 1975) and acculturation (Lortie, 1975; Lawson, 1983a,

1983b), rather than my professed belief that "the process of knowledge construction is facilitated by social interaction, for example through shared experience and discussion" (Berry, 2008, p. 46).

As evident in reflective journals over subsequent terms, I continued to have little success in identifying the incompatibility in enacting my social constructivist beliefs about T&L. I continued to interpret physical activity courses within a teacher education degree as being about vigorous activity rather than about learning how to teach physical activity in ways that promoted success for future pupils and participants. In a nutshell, I was catering to a perception that PSTs wanted to be active rather than learn how to teach others to be active:

> I am feeling very guilty that there is not enough activity time. This has to change. It is an activity course, and the theory must be better integrated. Group work is great, and it's necessary, but we have to be more active. (reflective journal, January 13, 2014)

This illustrates the tension that exists between being conscious of completing content versus being flexible about time and approach (Loughran, 2006). It also demonstrates that I had not yet fully made a *pedagogical turn* (Russell, 1997), as I was still viewing PETE content as focused on performing physical activity rather than learning to teach. In other words, I was positioning PSTs in a similar way to how I positioned K-12 pupils, in that I was aiming for them to experience movement rather than to experience how to teach movement. In effect, even though I was asking PSTs to learn approaches beyond their experiences as post-secondary learners (such as pedagogical models, MBP, or approaches beyond command/direct instruction), as a seasoned educator in the face of uncertainty, I too easily reverted back to what I was most comfortable with and had the most experience with as a

learner and teacher (Lortie, 1975). I was finding a pedagogical turn (Russell, 1997)—a focus on *how* I was teaching and the messages I was conveying—difficult to enact in practice.

As my appreciation and understanding of a social constructivist perspective continues to evolve, so do ways in which I enact that approach to T&L. S-STEP supported me in making the realization that I was often envisioning and enacting the physical activity courses in ways that reflected my previous experiences as a learner *and* the traditional approaches to how these courses had been taught. This realization allowed me to reflect on the purposes of such courses in a more critical way, especially in terms of how they supported PSTs in learning how to become teachers. In so doing, I now feel more confident in approaching physical activity courses from a social constructivist perspective where PSTs may, at times, be highly physically active, and at other times less active, with the goal being to support PSTs in learning to teach. This has implications for the development of principles of practice for implementing MBP and for my personal pedagogy of physical education teacher education using MBP (see Chapters 7 & 8).

Data analysis led me to identify some attempts to unpack the difficulty I was having in staying true to a social constructivist perspective as I attempted to integrate MBP theory and practice. Identifying challenges has many practical applications for my teacher education practice. For instance, unpacking my experiences of T&L about and through MBP as a teacher educator has provided me with a suite of critical incidents that I can use in my future practice to illustrate to myself and others the strength of both a teacher educator's and PSTs' socialization on teacher education practice (e.g., occupational socialization, Russell, et al., 2016; subjective warrants, Lawson, 1983a; apprenticeship of observation and acculturation, Lortie, 1975). In addition, coming to terms with my new roles and

responsibilities as a teacher educator and the difficulty I experienced aligning my teaching philosophy and actions, even as a seasoned teacher, is a critical incident that can be used as a real-life example of the benefits of, for example, reflective practice in any stage of one's career.

The recognition that I was misinterpreting the main purpose of physical activity courses in PETE programs as prioritizing the physical domain at the expense of learning about teaching through MBP was not the only challenge that made it difficult for me to enact a social constructivist perspective to teacher education. Guided by other descriptions of teacher educators' pedagogies of teacher education, I intended to explain, analyze, and unpack my teaching practice with PSTs in order to provide a window into the complexity of teaching. However, at times my planned attempts to engage PSTs in thinking about teaching decisions often resulted in me telling PSTs what I thought they needed to know and understand rather than making it a collaborative pursuit. In the following section, I present the analysis of this issue.

5.2.1.1.2.2 Challenge: Unpacking my Practice with PSTs

In trying to teach PSTs about teaching using MBP, I had committed to unpacking my practice with them in order to make my implicit knowledge of teaching using MBP explicit to them. However, my analysis showed that this often led to me assuming the burden for PSTs' learning. In turn, this supported them in relying on me for information that would be considered valuable in the respective course, which strongly reflects a transmissive approach to teaching that stands counter to many of the ideals of social constructivism. This was

manifested in several ways, particularly through “teaching as telling” and “teaching as planning.”

5.2.1.1.2.2.1 Teaching as telling

> Early on in my research, I wrote the following reflection in my journal:
>
> When we began [learning through] the cooperative learning [model], *I explained to them* why we were doing it, and things they may want to consider with their own future classes. We moved back and forth between the class as participants in cooperative learning, but also being intentional about cooperative learning as a teaching method/strategy/PE Instructional Model that they could use in the future. (reflective journal, September 04, 2013)

In this reflection, there is a phrase that is indicative of how I was unwittingly enacting *teaching as telling*. Specifically, the phrase “*I explained to them why we were doing it*.” While I was indeed providing a window into my teaching decisions, this window was one-way in that I was walking PSTs through all of my decisions around planning, instructing and assessing using CL. Reflective journals containing phrases like *I explained to them* also indicates that I was enacting an approach to teacher education practice that reflected the misguided notion that teacher education is telling, showing, and guiding practice (Myers, 2002), rather than using teacher education as a site for inquiry. Several of my learning plans also showed phrases, such as *remember to tell them*. These types of phrases further indicate that I was enacting an approach to teacher education practice that situated PSTs as vessels to be filled with my knowledge, rather than to facilitate them in constructing their own knowledge. Struggling with the practice of making my implicit knowledge of teaching explicit, I was simply telling PSTs about the pedagogy I was using under the guise of explaining my actions and their purpose. Unbeknownst to me at the time, I was teaching

PSTs how to be receptacles (Freire, 1970) of information by ticking off boxes as I turned the pages of the learning plan to start over again the next day. My confusion with this approach was apparent in another journal entry from the beginning phase of the research:

> I continue to try to put too much in the time we have. This serves no purpose. I think I am giving them all these great ideas, and great games and activities, but it's not about me "giving" them anything, it's about them being able to receive it. If I try to do too much to the point of saturation, they will not be able to internalize the information anyways. (reflective journal, September 09, 2013)

My reference to "giving" suggests I was reproducing the "tips and tricks" or hunter-gatherer approach to teacher education (Loughran, 2005), trying to satisfy my PSTs' short-term desires to fill their pedagogical toolboxes but not faithfully enacting an approach where teaching is viewed as complex, contextual, fluid, messy, and highly dependent on the educator's beliefs and their pupils' backgrounds. Moreover, my reference to PSTs being able to "receive" information further highlights my implicit positioning of PSTs as receptacles waiting to be filled up. Learning to unpack my practice in ways that provided PSTs with opportunities to interrogate my practice rather than the impression that they should teach like me will be addressed later in this chapter (see section 5.3.2.).

5.2.1.1.2.2.2 Teaching as planning

Through data analysis, it became clear that I often positioned PSTs as vessels to be filled with information rather than as active producers who make decisions about how to direct their learning. I did so by falling into the trap of positioning myself as sage on the stage, equating teaching with telling. I also struggled to let go of a strongly held assumption that there was some sort of direct correlation between effective teaching and meticulous

planning where every detail and circumstance was accounted for—what I came to realize was faulty logic at best.

Although my intent was to co-construct understandings about T&L through a MBP approach with PSTs, I had quickly fallen back into a traditional approach of *teaching as planning* and continued to search for places to be in control by planning exactly where we were going and how we were going to get there. I became trapped by the idea that my inability to enact my learning plans exactly as written was the source of my confusion and frustration. Ironically, I often said and continue to say to PSTs that a learning plan is a "living, breathing thing in that it changes and morphs into things that you never did expect as you reflect-in-action. It's challenging and highly rewarding all at the same time" (reflection shared with PSTs, October 12, 2013). The contradiction between my persistence in trying to adhere strictly to my learning plan and my belief that learning plans should change in response to the interactions during the lesson contributed strongly to the discontent and frustration I was experiencing. Instead, learning could have been made more meaningful for PSTs had I worked with them to apply what they were saying (or not saying) through discussion, exit slips, reflection journals, and body language about their learning as PSTs and, by extension, my teaching practice. This would have been a more responsive approach that more closely aligned with a social constructivist perspective on learning. Such an approach may have also served as a platform for interrogating how pupils could be placed at the centre of all pedagogical decisions—a hallmark of the foundations of MBP. In essence, modelling learning plans as a guide, rather than as commandments set in stone, could have opened up the opportunity for PSTs to engage in co-reflection, so as to support their learning about teaching, not to mention my improvement in practice.

As I neared the end of teaching the four courses, I was beginning to recognize that I had been "seduced by the illusion that improvement involves the quest for technical mastery or successful application of theory to practice" (Ovens & Fletcher, 2014, p. 9). I had fallen into (or perhaps had been socialized into) another stereotype of teachers of PE being pragmatists who engage in reflection concerned primarily with the perceived successes and failures of their actions (O'Sullivan, Siedentop, & Locke, 1992; Smyth, 1992). As such, in keeping with the intent of S-STEP, I turned my focus to ways in which I could reframe my practice.

5.3 Reframing My Practice: Making the Implicit Explicit

Through the process of studying my teacher education practice in situ, I have become better able to *see* my teaching behaviours from a critical angle. Subsequent iterative data analysis has deepened my understanding of my practice. In this way, S-STEP has supported me in determining ways to reframe my practice in order to better align my teaching beliefs and actions to maximize the benefits for my current and future PSTs, and their future pupils (LaBoskey, 2004; Loughran, 2006; Loughran & Russell, 2002; Mitchell, 1992) expressed through principles of practice for implementing MBP and the development of my personal pedagogy of physical education teacher education (see Chapters 7 & 8). In this section, I share data interpretations I used to inform ways in which I have (and continue to) reframe my practice.

5.3.1 Learning to integrate course purpose and approach

Data analysis led to my finding that PSTs' understandings of MBP as a pedagogical approach mostly lacked depth. Looking for ways to support PSTs in making explicit

connections between MBP and the teaching of physical activities and PE, I turned to the very first window they have into course purpose and approach—course syllabi. Although I spent hours producing syllabi that I was confident accurately reflected and integrated the official course description and my approach to the course, PSTs' journals revealed a somewhat muddled understanding of learning about and through MBP (TPSR and CL). This might be expected given the relatively short time that PSTs are engaged in learning about and through MBP in one 13-week course. However, given that one course may be the first and last time PSTs are exposed to MBP, I feel it is imperative that my principles of practice and pedagogy of physical education teacher education using MBP include considerations of ways in which PSTs can be supported in gaining the deepest possible connections, even in situations in which limited time is a factor. For this reason, I listened intently to what PSTs were saying (and not saying) through their journals. For instance, eight weeks into their first exposure to MBP in the Movement Concepts course, PSTs were asked to reflect on why MBP might be seen as a valuable part of a PST degree. David responded:

> MSP [MBP] is a worthwhile part of the Bachelor of Physical Education degree because it gives us a chance to go through a variety of different ways to teach to test out the ones we like and don't like. For the future, we could take one of these teaching styles; use TSPR for example in a class, go about this format for a semester or two see what your results are, and if negative, you still have a pocket full of other styles to fall back on and try out. It also goes through the expectations of the teacher in the classroom and gives you a target to aim for. (Journal, October 28, 2013, David)

Equating pedagogical models to teaching styles rather than pedagogical approaches, and basing the use of pedagogical models on what the PSTs (as future teachers) might "like and don't like" shows a large gap in understanding MBP as a pedagogical approach to PE which

places pupils at the centre of all decisions (Casey, 2014). Amy's journal also shows a superficial understanding of MBP and its implementation:

> MBP is part of the BPE [Bachelor of Physical Education] teaching option [degree] because it teaches students [PSTs] the essentials of TPSR and the important levels of how students [pupils] should be working at. Cooperative learning is also essential to teach to students [PSTs] because it allows them to build that type of environment/community so that cooperation is easily influenced to others. These are part of the BPE teaching option because they are both simple techniques to ensure students [PSTs] are being great models with those two resources. (Journal, October 28, 2013, Amy)

Viewing TPSR and CL as "simple techniques" when experienced teachers and teacher educators have acknowledged their implementation as complex and challenging (e.g., Casey & Dyson, 2009; Casey & MacPhail, 2018; Dyson et al., 2016; Fletcher & Casey, 2014; Gray, Wright, Sievwright, & Robertson, 2019) also shows a superficial understanding of successful implementation. This is a concern with respect to PSTs' future implementation of MBP and individual pedagogical models because when faced with the reality of the challenges associated with implementation, in combination with occupational socialization (i.e., ideas, views, and beliefs of more experienced colleagues, administration, pupils, and parents), PSTs are likely to revert back to the safety and familiarity of approaches they experienced as learners (e.g., Lawson, 1983b; Lortie, 1975; see Stroot & Ko, 2006; Zeichner & Tabachnick, 1981).

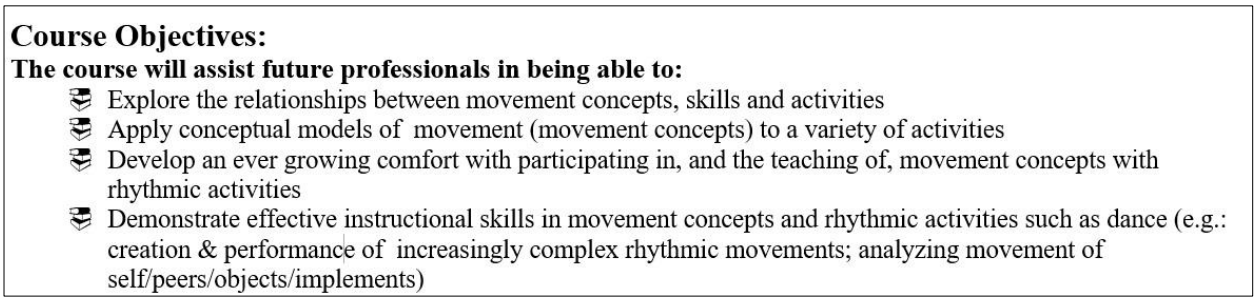
My interpretations of PSTs' journal entries are not to lay the blame for misunderstandings at the feet of PSTs. On the contrary, these journal entries make me aware that while I cannot (and should not) take on *all* responsibility for PST learning, in this case, I failed to support PSTs in understanding MBP, its intent, and how pedagogical models form a models-based approach to PE T&L. With respect to developing a pedagogy of physical

education teacher education for MBP then, an understanding of MBP as a student/pupil-centred pedagogical approach that incorporates multiple models must be co-constructed with PSTs at the beginning of courses. As well, the ways in which MBP and pedagogical models might support PSTs' early career practice (e.g., models provide frameworks) must be balanced with challenges they will likely face as novice teachers that may be intensified when attempting to implement innovative practice (e.g. organizational socialization within non-innovative school contexts and cultures).

As I began to search for reasons why PSTs were not making more explicit connections between course content, pedagogical models, and MBP, I turned the focus to how I framed the beginning of the courses and consequently began to review the course syllabi. I found that syllabi did not reflect a focus on their learning about and through MBP. While to many teacher educators this finding may seem basic, straightforward, naïve, and perhaps not worthy of reporting, it was an a-ha moment for me and, therefore, may be for others navigating the transition from K-12 educator to teacher educator with little to no mentorship or guidance. Although this may be interpreted as a simplistic finding, I confidently include the lack of alignment between my intended approach to the course (i.e., MBP) and the contract I had with PSTs (i.e., the syllabus) as supporting the development of parts of my pedagogy of physical education teacher education and principles of practice (see Chapters 8 & 7 respectively).

In looking closely at original course syllabi, the Movement Concepts course (Fall) syllabus contained no visible expectation of PSTs' learning about or through MBP; there was no mention of singular pedagogical models or MBP on the syllabus. Instead, construction of the syllabus succeeded in only matching course objectives to the UCR

calendar description: “Movement concepts employs the conceptual approach to teaching physical activity and facilitated through various forms of dance (e.g., creative, folk). Concepts, skills and strategies will be emphasized”. For example, as shown in Fig. 6, the first four objectives were:


Course Objectives:

The course will assist future professionals in being able to:

- Explore the relationships between movement concepts, skills and activities
- Apply conceptual models of movement (movement concepts) to a variety of activities
- Develop an ever growing comfort with participating in, and the teaching of, movement concepts with rhythmic activities
- Demonstrate effective instructional skills in movement concepts and rhythmic activities such as dance (e.g.: creation & performance of increasingly complex rhythmic movements; analyzing movement of self/peers/objects/implements)

***Figure 6**: Movement Concepts Fall 2013 course objectives 1-4.*

While there was also some focus on accessing, critically viewing, and reflecting on resources and personally meaningful topics, as shown in Fig. 7, pedagogical models and MBP were not mentioned:

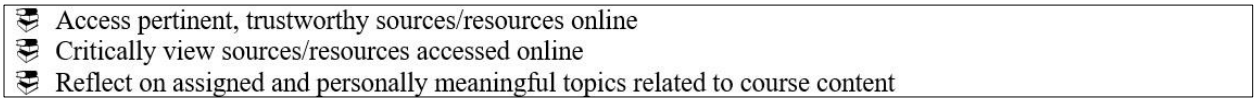

- Access pertinent, trustworthy sources/resources online
- Critically view sources/resources accessed online
- Reflect on assigned and personally meaningful topics related to course content

***Figure 7**: Movement Concepts Fall 2013 course objectives 5-7.*

Other course objectives emphasized making connections between course content and current trends in the field, as well as contextualizing course content and PSTs within the field of PE. However, as shown in Fig. 8, pedagogical models and MBP were again absent.

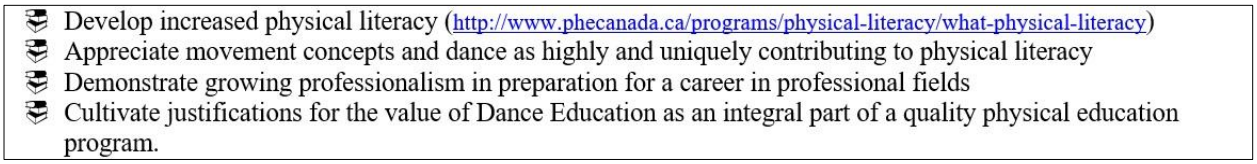

- Develop increased physical literacy (http://www.phecanada.ca/programs/physical-literacy/what-physical-literacy)
- Appreciate movement concepts and dance as highly and uniquely contributing to physical literacy
- Demonstrate growing professionalism in preparation for a career in professional fields
- Cultivate justifications for the value of Dance Education as an integral part of a quality physical education program.

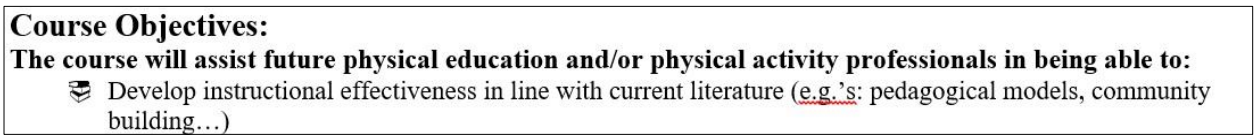
***Figure 8**: Movement Concepts Fall 2013 course objectives 8-11.*

As these syllabi excerpts demonstrate, there was no mention of MBP or pedagogical models in the objectives of PSTs’ first course, which was supposedly based in MBP. Nor

was there any reference to MBP in the recommended resources or assignments and evaluations within the syllabi of the first two courses (i.e., Movement Concepts Fall and Winter). While *I* knew that T&L about and through MBP was an integral part of the teaching and expected learning within the courses, I was not explicit in articulating these intentions with PSTs—I missed an opportunity to support PSTs in making explicit connections between MBP as a pedagogical approach to the T&L of physical activities and PE.

What I have come to realize through data analysis is that syllabi should be viewed as powerful learning tools—"once-in-a-course" opportunities—to integrate course purpose and approach. Syllabi must make the language of MBP explicit to PSTs. Typically, the syllabus is one of the first topics of discussion in any course and offers a way to set the scene for the structure and content of the course to follow. As a result, I set about improving my practice by designing syllabi that explicitly stated my intent to approach the T&L of PE content through MBP.

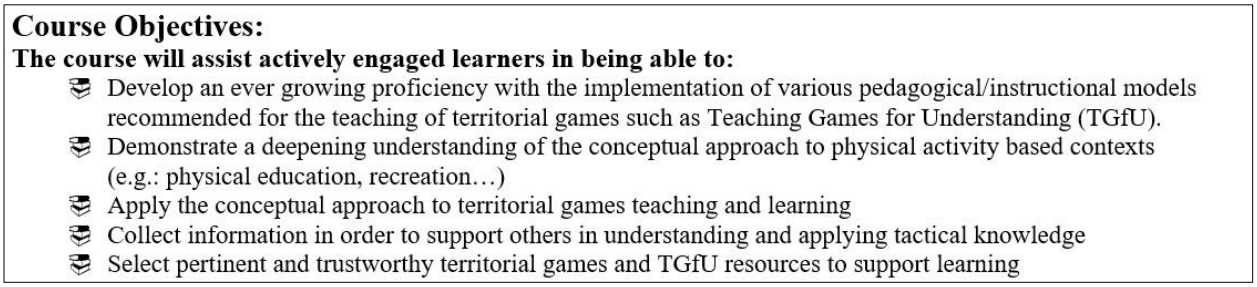
By the third and fourth courses, the importance of singular and multiple pedagogical models was readily apparent on syllabi, as shown in Figs. 9 and 10:


Course Objectives:

The course will assist future physical education and/or physical activity professionals in being able to:

- Develop instructional effectiveness in line with current literature (e.g.'s: pedagogical models, community building…)

Figure 9*: Gymnastics course objective 1.*


Course Objectives:

The course will assist actively engaged learners in being able to:

- Develop an ever growing proficiency with the implementation of various pedagogical/instructional models recommended for the teaching of territorial games such as Teaching Games for Understanding (TGfU).
- Demonstrate a deepening understanding of the conceptual approach to physical activity based contexts (e.g.: physical education, recreation…)
- Apply the conceptual approach to territorial games teaching and learning
- Collect information in order to support others in understanding and applying tactical knowledge
- Select pertinent and trustworthy territorial games and TGfU resources to support learning

Figure 10*: Territorial Games course objectives 1-5.*

In addition, by the fourth course, Territorial Games, the words *pedagogical model* and *TGfU* figured prominently on other parts of the syllabus such as textbook recommendations and comprised 50% of the assessment and evaluation for the course (see Figs. 11 and 12).

Recommended Texts:

Recommended texts can be found on reserve at the QEII library.

Fronske, H.A. & Heath, E.M. (2015). *Teaching cues for sport skills for secondary school students*. Toronto, ON: Pearson Higher Education.

Griffin, L., & Butler, J. (Eds.), (2005). *Teaching games for understanding: Theory, research, and practice*. Windsor, ON: Human Kinetics.

Mitchell, S. A., Oslin, J. L., & Griffin, L. L. (2003). *Sport foundations for elementary physical education: A tactical games approach.* Windsor, ON: Human Kinetics.

Mitchell, S. A., Oslin, J. L., & Griffin, L. L. (2006). *Teaching sport concepts and skills: A tactical games approach* (2nd ed). Windsor, ON: Human Kinetics.

Mitchell, S. A., Oslin, J. L., & Griffin, L. L. (2013). *Teaching Sport Concepts and Skills: A Tactical Games Approach for Ages 7 to 18*. Windsor, ON: Human Kinetics.

***Figure 11**: Territorial Games recommended texts.*

ASSIGNMENT	DESCRIPTION ***It is essential that you access D2L for further guidance on these assignments***
TGfU Website Construction 25%	Construct an informative, visually appealing 5 page Weebly Website that provides accurate and useful information re: Teaching Games for Understanding.
Assessment PowerPoint or Prezi 25%	Demonstrate the depth of your knowledge about assessment as it applied to physical activity based contexts and more specifically to conceptual models such as TGfU by using PowerPoint or Prezi in a visually appealing manner. This work must be a stand-alone piece (ie: does not need explanation/does not need to be presented).

***Figure 12**: Territorial Games assessment and evaluation.*

Even though I thought I had been drastically modifying syllabi in order to explicitly align intent to learn about and through MBP, mention of MBP was still absent from course syllabi by the last course. This demonstrates that even with focused investigation into my practice that I was slow to incorporate meaningful transformation in course outcomes,

resources, and assessment and evaluation of courses in ways that included MBP. Lessons learned from identifying barriers to PSTs' understandings of MBP such as this, and my resulting slow response to addressing those barriers, opens future discussions on ways to effectively support PSTs in learning about and through MBP. In addition, my ideas, views, and perspectives about the challenges and benefits of aligning teaching beliefs and actions, engaging in reflective practice, and conducting practitioner research in the form of S-STEP have all been impacted by my slow response to what should have been a quick and easy modification to my practice.

Syllabus construction is one example of how my 17 years of K-12 teaching was not directly transferable to my teacher education practice. Understanding the importance of the syllabi as the introduction and window into the course was not only a way to improve my teacher education practice in technical ways (i.e., syllabus construction), but also in ways that supported PSTs and me in making the tacit explicit (Loughran, 2006). While still evolving, and as small and intuitive as it may appear, this realization has made an impactful difference in my practice as a teacher educator with respect to not only how I introduce courses, but also how the courses are conducted and ways in which PSTs are supported in learning about and through MBP, for example, through increased emphasis on assessments requiring understandings and implementation of pedagogical models and MBP.

Integrating MBP and course content through syllabi construction is one way I began to reframe my practice and develop both principles of practice and a pedagogy of physical education teacher education using MBP. In the next section, I continue addressing ways in which data analysis led me to reframe my practice by turning the focus to unpacking my practice with PSTs.

5.3.2 Learning to unpack my practice with PSTs

Reframing my practice by focusing on making my implicit knowledge of teaching explicit to PSTs was one of my intentions as I began this S-STEP research. I believed that unpacking parts of my practice that were often not apparent to myself or PSTs might shed light on aspects of teaching otherwise left in the shadows. As my data analysis showed, I thought I was achieving this goal through questioning, sharing my decision-making process, and strictly adhering to learning plans. For instance, one aspect of MBP, I asked PSTs to reflect on in their journals and through discussion was my reasons for choosing particular pedagogical models. While this is important to highlight as part of MBP implementation, it was superficial in that it did not address my ideas, beliefs, or perspectives for choosing MBP as an approach to PETE, nor did it ask PSTs to make connections for reasons that they might choose MBP as an approach to the T&L of physical activity and PE content in their future practice. Furthermore, while it is embarrassing and difficult to admit, even my learning plans indicated that what I was expecting in terms of PSTs' answers to my questions reflected the "tips and tricks" of teaching that PSTs have been said to desire and expect in their teacher education programs (Loughran, 2005). For example, I planned to ask PSTs about the teaching strategies and methods they noticed me using and what they perceived their purpose to be. My learning plans show that I anticipated answers such as "changing taggers/leaders by colour of shirt, eyes, hair during warm-up games", "everyone should have a turn at being it/a leader", "raising a hand to stop pupils rather than a whistle." PSTs' responses support the perception that providing "tips and tricks" would be viewed favourably. For instance, their replies included: "short bursts followed by short rests", "developmentally appropriate", "SIPs of feedback [specific, immediate, positive]", "rules

were simple", "games with no winners/losers" (learning plan anecdotal records). Few of their answers focused on overall teaching approaches.

While I thought I was supporting ways of co-constructing knowledge of practice with PSTs through questioning aspects of teaching practice, what I was really succeeding in doing was offering *tips and tricks as effective teaching*. I was trapped in the misbelief that telling, showing, and guiding PSTs through my teaching practice was sufficient for teacher education, thereby perpetuating the view that teaching about teaching is not a scholarly or inquiry-oriented endeavour. It wasn't until I neared the end of the four courses in which PSTs and I learned about and through MBP together that I was beginning to understand teacher education as a scholarly endeavour that supported PSTs in being able to make connections between and question their own beliefs and approaches to pedagogy that are supported by research (Loughran, 2014a; Myers, 2002). In other words, making my implicit views and knowledge about teaching explicit to PSTs required both PSTs and me to interrogate *my* ideas and beliefs about T&L in conjunction with their own, and with support from education literature. This would involve thoughtfully worded questions that stimulated discussion and debate rather than recall or closed responses. My journal reveals the uncertainly I still had with making the implicit explicit as I neared the end of the four courses:

> This has taken me a long time to get around to and is something I'm still working on, but I feel as though I continue to understand more deeply all that "making the implicit explicit" means, and somewhat in ironic fashion, I still struggle with elaborating on what I just said. Making the implicit explicit used to mean being able to say what I knew but more in a factual sense. If I learned more, I'd be able to put what I know/knew to be true into words that others can understand—I'd have the language. But to me now, making the implicit explicit also means gaining the confidence in my

> views/ideas/beliefs to share them, to study them, to open them up to others for consideration and challenge. (reflective journal, June 19, 2014)

While learning to unpack my practice with PSTs might be considered an important aspect of good teacher education practice, it also informs the development of principles of practice for implementing MBP and the development of my personal pedagogy of physical education teacher education using MBP. For example, I now see my struggle to unpack my practice with PSTs as contributing to their muddled understandings of MBP. Making this connection between my struggles teaching about teaching as impacting PSTs' learning about teaching contributes to my development of a pedagogy of physical education teacher education in which teaching about teaching and learning about teaching should be intertwined (Loughran, 2014a).

As is the case with S-STEP research within the dynamic contexts of T&L, after data analysis and interpretation, I now have new questions rather than solid answers. I am left assuming that PSTs not involved in the study gained little understanding of MBP given that those involved in the study agreed that the interviews are what deepened their understandings of MBP (individual and focus group interviews). I am also left wondering what ways my reframed practice of unpacking my practice using MBP will (and won't) support future PSTs in interrogating their own and others' approaches to T&L.

Chapter 5 Summary

Reflective practice has played a critical role in my continued development as an educator. At the core of this reflection is my need to improve my practice in ways that support PST and/or pupil learning (Pinnegar & Hamilton, 2009). S-STEP provided a focused approach through which to identify successes and face challenges in my teaching practice.

Documenting and examining my experiences of T&L about and through MBP as a beginning teacher educator allowed me to maintain a consistent focus on considering alternate approaches to T&L situations. Lessons learned from my experiences are important for myself as a teacher educator interested in improving my practice but also in ways that extend beyond myself. For example, sharing these experiences and lessons learned with PSTs supports them in facing the reality of T&L as complex and filled uncertainty. As well, lessons learned may support the field of PE and teacher education as we navigate MBP as a possible road to a sustainable future for PE (Kirk, 2010).

Chapter 6 - Pre-Service Teachers' Experiences Learning to Teach Using Models-Based Practice

In this chapter, I provide results from investigating the second of the two overarching research questions from this study: *What do I learn about implementing innovative practice in the form of Models-Based Practice (MBP) by analyzing and understanding pre-service teachers' experiences of their learning and my teaching?*[14] Semi-structured individual and focus group interviews with PSTs, PST journal reflections, and exit slips provided data that were analyzed to generate insights into PSTs' experiences of their learning and my teaching about and through MBP.

In order to gain a richer and more rigorous understanding of the complexities of developing a pedagogy of teacher education through examining the concepts of learning about teaching, learning about learning, and teaching about teaching (Loughran, 2007b), I turn the focus to PSTs' experiences. While I had difficulty separating the PSTs' experiences from my own that were analyzed in Chapter 5, as we experienced T&L about and through MBP simultaneously, the intent of this chapter is to focus on PSTs' interactions with my teaching approaches so that I can, in turn, learn about my self-in-practice in relation to others (Pinnegar & Hamilton, 2009). Given that our experience was shared in many ways (e.g., context, content, participants), there was some overlap in the issues we encountered, resulting in some similarity of themes from the previous chapter. However, PSTs also bring with them their unique previous experiences, ideas, and beliefs, all of which provide insights into my teacher education practice that are both similar and different from those previously

[14] Some of the results reported in this chapter have been previously reported in Baker and Fletcher (2017).

identified. Bringing PSTs' issues to light through data analysis lead me to identify *making the unfamiliar familiar* and *building community* as two key elements of PSTs' experiences of learning about and through MBP. These two themes offer ways to improve my understanding of teacher education practice, and by sharing this understanding, contribute to the knowledge base of teacher education practice.

There are two main sections to this chapter. First, I address issues and possibilities associated with supporting PSTs in learning to learn and learning to teach about and through MBP by making this unfamiliar innovative approach to T&L PE content more familiar. Second, I revisit building community (see Chapter 5) from PSTs' perspectives, and examine the possibilities this concept provides in supporting an understanding of MBP.

6.1 Supporting Pedagogical Innovation by Examining PSTs' Experiences

As explained in the previous chapter, Loughran (2007b) suggests that many PSTs view teacher education as a time to locate the familiar practices they experienced as pupils, rather than as an opportunity to discover strategies and approaches supported by research on teaching. Moreover, considerations of *why* some strategies are better supported than others in particular contexts are not often at the forefront of PSTs' thinking, nor is consideration of how to link personal or public theories with their pedagogical decisions and actions (Griffiths & Tann, 1992). Accordingly, when PSTs "seek the familiar" in their experiences of learning to teach, it can be a challenging proposition when they are confronted with pedagogical innovations such as MBP, which can present new ideas about learning, new ideas about teaching, and new considerations of "who" a PE teacher is and what teachers do in their roles (Sirna, Tinning, & Rossi, 2010). Thus, the shift from school pupil to PST to

practicing educator not only requires developing a new appreciation of the complex knowledge required to teach in innovative ways, it requires a new way of identifying oneself. This is a challenging process when the novelty of innovative approaches is pitted against the powerful socializing influence that 13 years or more of being a pupil has on PSTs' beliefs about teaching (i.e., apprenticeship of observation, Lortie, 1975).

In comparison to the extensive amount of time in schools as a pupil, pre-service teacher education programs provide a relatively small amount of time to engage in experiences that could work to counter the influence of the apprenticeship of observation (Lortie, 1975). However, "despite the existence of many studies which suggest that teacher education courses have a low socializing impact, one must be cautious in accepting their findings" given that researchers (e.g., Bartholomew, 1976; Ginsburg, 1988; Giroux, 1980; Popkewitz, 1985) have also found that "the real impact of preservice preparation lies in…subtly communicated…covert processes of the hidden curriculum" (Zeichner & Gore, 1990, p. 326). In addition, Pajares (1992) maintained that understanding teachers' and PSTs' belief structures and how they influence their perceptions and judgements is essential to improving professional preparation and teacher practices. It is therefore imperative that teacher educators use PSTs' experiences to inform ways in which teacher education practice can support PSTs in considering, and ultimately sustaining, pedagogical innovations such as MBP.

Analysis of data from this research revealed that PSTs felt both supported *and* challenged in their learning how to teach PE content through MBP that I enacted. As one possible way to disrupt some problematic aspects of the apprenticeship of observation

(Lortie, 1975), I first focus on meeting the challenge of supporting PSTs in making unfamiliar pedagogies of MBP more familiar to them.

6.1.1 Making the Unfamiliar Familiar

Because many PSTs are seeking to locate familiar practices they experienced as pupils (Lawson, 1983a; Lortie, 1975; Sirna et al., 2010), teacher educators are faced with several challenges in how they might support PSTs in engaging with innovative practice. One way that teacher educators might capitalize on PSTs' inclination to seek the familiar, is by making the "strange familiar" (Gordon, 1961).

Even though the idea of incorporating multiple models into the curriculum process in PE has been in existence for over 30 years (see Bain, Ennis, & Jewett, 1985), all PSTs in this study indicated they were unfamiliar with MBP. In fact, when recalling their K-12 PE experiences, most participants suggested they did not experience pedagogical innovation of any kind but rather were steeped in traditional multi-activity, PE-as-sport-technique (Kirk, 2010) approaches that offer the physically active pupil enjoyment and benefits, but little to those who are not predisposed to a physically active lifestyle (de la Haye, Robins, Mohr, & Wilson, 2011). For example, the following excerpts and key phrases from the first interview highlights the ways several PSTs described their K-12 PE experiences:

- "stretch and rec" [start class with stretching and then play what you want], "unstructured," with "some cross-country skiing and outdoor activities" (Brian)
- "sport-focused", "filled with technical mastery", "wasn't PE-was just sport skills", "wasn't fun" (K-6); "fun and skills" (gr. 7-9), "lifestyle pursuits such as curling, swimming and squash" (gr 10-12) (Julie)
- "drills and skills", "assessment based on how many times out of 10 you could score a lay-up", "dry", "boring", non-athletes "just wanted to get out

there", PE teachers were "coaches and approached teaching as coaching" (David)

- "boring", "controlling", "demo and practice" (Amy)
- "no cognitive piece, no learning", "mostly volleyball, basketball and ball hockey with some non-traditional such as archery and outdoor" (Craig)
- "not planned", "played a lot of volleyball and hockey" (Scott)

Five of the nine PSTs also recounted times they personally experienced "intimidation", "ridicule", "humiliation", and "exclusion" from both teachers and peers in their PE experiences (Craig, Elizabeth, Gerald, Julie, Amy, Interview 1).

While many of their experiences share recurring elements found in ineffective traditional PE programs, such as marginalization, low accountability for learning, and biased course offerings fueled by the interests of the teacher (Duffy, 2013; Ennis, 1999; Hickey, 2008; Jung, Ressler, & Linder, 2018; Singleton, 2009; Tischler & McCaughtry, 2011; Wright, 2004), their identification as successful PE pupils seemed to outweigh the negatives. Most PSTs referred to "loving", "always loving", "loving it [PE] all the way through" and PE being their favourite course because they identified themselves as "athletic", "super athletic", "good at it", "excelled at it", and PE as a place to "shine", "showcase talent", "have fun with friends", and "be physically active" (Brian, David, Elizabeth, Hunter, Amy, and Scott, Interview 1). Craig also shared that while he vividly remembered one negative experience of being a ball hockey goalie and feeling like the older pupils were more focused on aiming the ball *at* him in an attempt to hurt him rather than shooting to score, he was "doing PE now because I had a positive experience" (Interview 1).

PSTs' experiences as pupils contributed to challenges in understanding MBP as an approach to PE and physical activity. For example, unfamiliarity with pedagogical models

was identified by PSTs as one of the biggest challenges to their learning. Elizabeth said, "I think the most difficult thing was that it [MBP] was so new, and I had never experienced it before" (Interview 3). This was echoed by Craig when he stated that, "…it [MBP] was so new to us, hadn't heard of anything like it as we were going through the school system" (Interview 3). Gerald extended this view to not only his past experiences as a K-12 pupil but also to past generations of PSTs and PE teachers:

> When you come through the high school curriculum, you never knew what it [MBP] was. And when you come to university, I never knew what it was. My brother and my father completed a BPE, and they never knew what it [MBP] was. When I came in [to the BPE program], it was totally new to me. That made it challenging. (Interview 3)

Given that PSTs recalled their experiences as mostly positive and predominantly traditional, as their teacher educator, I had to navigate ways of introducing innovative pedagogy that challenged PSTs' cherished experiences without alienating them. From analyzing PST interview data, I came to see that I could support PSTs in critically examining their past experiences by focusing on making the unfamiliar familiar. One way to make MBP seem somewhat familiar to PSTs was through an integrated approach—that of providing opportunities to learn both *about* and *through* MBP as learners and future educators. Both PSTs and I found this approach to be influential in their learning.

6.1.1.1 Integrating learning "about" and "through" models

Moy et al., (2016) suggest that in an attempt to support PSTs' receptiveness to alternative pedagogies, opportunities should be provided to both personally experience and observe successful implementation of such pedagogies in the same ways PSTs had

previously experienced traditional approaches to PE as pupils. Moy et al. (2016), suggest that within PETE:

> It is also important that these experiences are offered in conjunction with a clear understanding and appreciation of the learning theory that empirically supports the learning process within the design and delivery of the alternative pedagogy. The operationalised theoretical framework within a research-informed pedagogical unit design will provide students [pupils] with a theoretical rationale for the perceived effectiveness of an alternative approach, and a framework for application of key principles and a justification for its future use. (p. 28)

This line of thinking provides support for having PSTs learn both about and through MBP as a principle of practice for MBP implementation in PETE and contributes to my personal pedagogy of physical education teacher education using MBP. That is, PSTs should be provided with opportunities to learn about the models while also having opportunities to experience what it is like to learn through the models—to "live" the models in a similar way that school pupils would. By providing opportunities for PSTs to experience MBP as learners and as future teachers, there are possibilities for bringing about deeper understandings and perhaps stronger affiliation to learning to teach using innovative pedagogy. Moreover, this approach reflects social constructivist and situated approaches to learning in physical education.

I developed the PETE courses with the intention of providing PSTs with experiences in learning about and through MBP from dual roles: (a) a more familiar role of participant (i.e., learner or pupil) and (b) a less familiar role of future professional (i.e., educator-teacher, program leader, coach, etc.). For instance, in the Movement Concepts course, PSTs were learning through MBP by participating in classes that incorporated movement concepts, dance, and all five parts of a TPSR lesson (i.e., relational time, awareness talk,

physical activity, group discussion, individual reflection) (learning plans, Movement Concepts 1, September 11, 2013). That is, they were learning *through* TPSR by experiencing what it was like to be taught in a PE class where movement concepts and dance were the content focus, and the pedagogical approach was TPSR. PSTs were also learning *about* TPSR as the purpose and implementation of each part of the TPSR lesson format was discussed from the perspective of their future roles as educators (i.e., teachers, instructors, recreation leaders) (see Figure 13, course artifact, Movement Concepts 1, September 11, 2013).

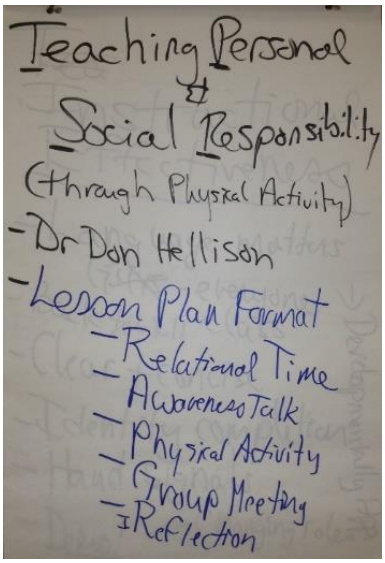


***Figure 13**: Example of flipchart used to learn about the five parts of a TPSR lesson format.*

Julie, who reported having a strong background in dance since the age of three, spoke of the importance of experiencing learning both about and through TPSR. Specifically, she equated the learning and performance of dance content with the learning and performance (i.e., implementation) of MBP pedagogy:

> I'm just thinking. With the course I took, it was specifically dance so we learned about dance through the models [TPSR and CL]. You can teach

> dance in a classroom and learn steps, but without actually doing them, you're not going to be able to really perform them. So, it's the same thing for the MBP of how you're going to approach the lesson. Yeah, learning through them really solidifies it and makes it real rather than just a theory. (Interview 3)

In Julie's quote, she suggests that learning only the theory of dance would result in an incomplete experience to support dance performance. In the same way, this illustrates how learning only the theory of models would not provide PSTs with the depth of understanding needed to implement pedagogical models (in this instance, TPSR and CL). Julie's use of this metaphor provided me with evidence from the PSTs' perspective that learning both about and through models was a worthwhile approach to learning innovative pedagogy as it was supporting their development of deeper understandings of T&L using MBP.

In the Gymnastics course, I continued to emphasize learning about and through models. For example, CL Benchmarks (such as heterogeneous groupings, working together to ensure everyone's success in meeting challenges, assuming CL roles, and positioning the teacher as facilitator) were used to support the implementation of CL. Specifically, PSTs were introduced to the principles of these benchmarks through reading and discussion, which was followed by opportunities to experience what it is like to see these benchmarks enacted in a gymnastics lesson using CL. Similarly, after first being introduced to CL in this way, I supported a deeper focus on Peer Teaching through Metzler's (2017) Peer Teaching planning templates, samples, and benchmark sheet (see Appendix B), and finally culminating in opportunities for PSTs to "live" Peer Teaching in the gymnasium (Gymnastics learning plan, January 22, 2014).

While I provided PSTs with opportunities to learn about and through CL and Peer Teaching in the Gymnastics course (content and models), they described the course as resonating the least with them because it was too unfamiliar, in terms of both content and pedagogy. For example, when asked if anything stood out as particularly positive or negative learning about and through MBP, Amy identified Peer Teaching in the Gymnastics course, stating that because she had no previous experience with either Peer Teaching or gymnastics she felt that she was "not good at them" (Interview 1). This quote brings to light the fragility of PSTs developing identities as teachers might implement an innovative approach to PE with which they have no experience nor strong personal connection as learners or teachers. One thing I learned from analyzing PST data was that I struggled to meet the objective of making the unfamiliar familiar in the Gymnastics course. This can be attributed to my underestimation of the amount of novelty (i.e., both content and approach), in combination with the reduced amount of time to engage in learning to learn and learning to teach about and through MBP as compared to other courses.

Similar integration was used in the third course, Territorial Games. However, lessons learned from both my experiences in previous courses, and those of PSTs, was used to inform my teacher education practice using MBP. For instance, I felt supported by PSTs' feedback and MBP literature, and thus more confident, to spend a greater amount of time at the beginning of the term to more deeply focus on learning *about* the models and not be as consumed by their learning *through* the physical activity as the most important measure of my effectiveness as a teacher educator. Similar to the implementation of a *Lesson Zero*, a recommended practice for introducing a model to pupils (Dyson & Casey, 2016), the first few days of class, we focused on the what, how, and why of TGfU, often through CL. We

began with an introduction to the course and pedagogical models by learning about and through CL and TGfU strategies, but without the added complexity of learning about and through one or more models in a predominantly physical activity-based context. For instance, I asked PSTs to consider their expectations of the course through the Think-Pair-Share strategy (commonly used in CL). This was followed by a discussion of PSTs' expectations of the course, CL as a pedagogical model, and why I might have chosen to use CL as a way to share the overarching course approach (i.e., social constructivist, MBP, pedagogical models). After this, we questioned our ability to play sports that are not traditional in our own geopolitical context (e.g., netball, floorball, bandy) and the reasons behind our beliefs. Explicit connections were then made to TGfU pedagogy, such as focused questioning, games categories, and transferability between and across game categories. In class two, we continued in this vein-learning about and through pedagogical models. PSTs were engaged in extending their understanding of TGfU through a CL strategy, the Jig-Saw method, by reading, dissecting, and becoming "the expert" on an aspect of TGfU (e.g., theory, principles) in order to share with their *home* group. This foundational knowledge of TGfU, developed by each person in the group assuming responsibility for their role, was used to begin co-constructing a TGfU website with three or four peers (Territorial Games learning plan, May 20, 2014). During this task, explicit connections were made between course content (learning to teach territorial games) and pedagogies (e.g., CL, TGfU, MBP, building community, and social constructivist approaches to learning).

While PSTs identified challenges with learning to teach PE content about and through MBP from the perspective of both learners and future professionals, they also felt

that the consistency with which I used this approach supported them in facing their initial challenges. For example, David said that learning about and through MBP was:

> …challenging at the beginning because it was like a strict guideline that we had to follow, and none of us were used to using a strict guideline for anything. So, like with lesson [learning] plans in TPSR, you had to do this, this, this. And we're all like, "ugh, I don't want to do it like that, like I don't think this works, I don't want to do it." So, when we first started to learn, it was like starting to learn anatomy, like frustrated as hell because you don't know where you're at. But then you sort of practice, just practice [and] you get a better understanding through it. By the end of TGfU or Territorial Games, I found it easy, simple…it all came to me a lot easier after practicing so many different ones (Interview 2).

Initially, Amy also felt challenged by simultaneously learning about and through MBP because it was not something she had experienced as a learner. But over time, she highly identified with MBP as a pedagogical approach that had become a part of who she wanted to be as a future PE teacher. She was learning that there were approaches beyond what she had experienced as a learner that might be beneficial to her future pupils; she was allowing herself to be influenced by experiences that were different from those she had in her own schooling and, these were shaping the development of her teacher identity,

> At first, I found it challenging only because I didn't understand. I didn't get it; I didn't see the purpose of it. It was early in my degree. I was only in my second year. It was my first course that was more of a practical part of my degree. So not really knowing any of this stuff and like how life is, you find it challenging until you get used to it. So, I did find it really challenging at first, but as time went, I continued on in the degree [and] I started to realize that this [MBP] has become a lot easier because this is literally in me, like integrated into things I do (Interview 2).

Similarly, Craig couldn't see any reason why he wouldn't implement MBP, given that he had experienced the benefits of learning both about and through it first-hand, but with the caveat that it would be highly dependent on the pupils and their needs (Focus Group Interview).

Bolstered by deeply considering and reconsidering my practice through S-STEP inquiry, PSTs' feedback, and literature on teacher education and MBP, I was becoming more confident in my practice as a teacher educator implementing MBP in PETE. In essence, I was simultaneously developing my identity as a teacher educator as PSTs were perhaps developing their identity as teachers. One example of my increased conviction in my teacher education practice is my growing belief in the benefits of learning both about and through MBP as one way to support PSTs in recognizing familiarities in innovative practice; and using this new-found perspective to support their reconsideration of what it means to be a teacher of PE, and how we can *do* PE differently (Casey, 2014; Siedentop, 1992). However, endeavouring to learn unfamiliar concepts, content, *and* pedagogies still presents many challenges for both teacher educators who teach PSTs to teach and PSTs who are learning to teach.

6.1.1.1.1 Integrating content, pedagogy, and perspective

While simultaneously learning about and through MBP can accelerate the time it takes for PSTs to become familiar with the pedagogy, this approach can be quite challenging. Unique challenges are presented when content is familiar, but the pedagogy is not, or when both content and pedagogy are unfamiliar. PSTs reported the most challenging scenario occurs when endeavouring to support pedagogical innovation—when pedagogy and perspective (learner versus future teacher) are unfamiliar. In the next three sections, I will discuss each of these scenarios and suggest some strategies for addressing these challenges in making the unfamiliar pedagogy of MBP more familiar to PSTs (and myself).

6.1.1.1.1.1 When content and pedagogy are unfamiliar

The Gymnastics course was a time and place where many PSTs found the content unfamiliar. The few PSTs who had experienced gymnastics during their K-12 schooling or outside of school had been exposed to Olympic gymnastics. Olympic gymnastics is commonly understood as an approach that focuses on skill mastery and repetition of the same sequences performed by all participants on traditional equipment such as beam or bars. Performance is then assessed or judged based on standards. Conversely, the content of the Gymnastics course I taught consisted of educational gymnastics, which involves emphasizing activities that support motor competence through self-exploration in and with the environment with flexible measures of success based on the skills achievable by each individual participant. In addition, they were learning about and through two models, CL, and Peer Teaching, from both the perspectives of learners focusing on their current learning in a PETE course and as PSTs thinking in terms of their future pupils. Two of these PSTs were also experiencing the models for the first time because they had not been enrolled in the Movement Concepts course prior to enrolling in the Gymnastics course. Gymnastics was also the course with the shortest duration—135 minutes per week as opposed to between 330 and 340 minutes per week for Movement Concepts (TPSR and CL) and Territorial Games (TGfU) respectively.

Due in part to these circumstances, over time, PSTs struggled to recognize many specific techniques that I used to support them in understanding content from the Gymnastics course. Sometimes PSTs recalled CL, but few recalled Peer Teaching, and often had to be extensively prompted in their interviews to remember specifics about this course. For instance, Hunter's first interview was 15 months after his first exposure to MBP in the

Movement Concepts course; yet he could recall the models used in that course stating: "We did TPSR and Cooperative Learning in Movement Concepts I think." In contrast, Hunter could not recall the models from Gymnastics, even though it had been less than a year since he was engaged in that course, stating: "And in Gymnastics we covered… I can't remember right now" (Hunter, Interview 1). From these statements and other data, I suggest that MBP did not resonate with some PSTs such as Hunter. It may be inferred then that making the unfamiliar familiar takes time, and this was sorely lacking in the Gymnastics course. Simply stated, there was not enough time to support deeper learning of how to teach the unfamiliar PE content of Gymnastics through unfamiliar pedagogy (MBP—CL and Peer Teaching) using an unfamiliar approach (about and through).

Without PSTs' data and experiences being directly used in the development of my principles of practice and personal pedagogy of physical education teacher education using MBP, I may never have realized the extent to which their understanding of gymnastics, CL, and Peer Teaching was limited, nor of the many barriers to their understanding. This has also contributed to a deeper understanding that making the unfamiliar familiar does not only involve repetitive exposure to a new concept, idea, or perspective but rather that a *balance needs to be struck in terms of the time and types of experiences required to understand the amount of novel concepts in a course*. For example, familiar course content (like games) may afford more time for unpacking unfamiliar approaches to learning, such as MBP, whereas unfamiliar content (like gymnastics), in combination with new approaches to teaching, would likely require more time to deeply examine. In seeking to make the unfamiliar familiar in a course with constraints such as unfamiliar content and reduced contact time, choosing a pedagogical model with which PSTs are already familiar, or at least

that shares some similarities with their previous experiences in PE, should be considered. In addition, while readings and assignments should always be developed to support understanding of course content and approach, in situations where there is so much unfamiliarity, out of class support including and beyond readings and assignments must be carefully constructed and highly focused in seeking to make the unfamiliar familiar.

6.1.1.1.1.2 When the content is familiar, but the pedagogy is not

While the Gymnastics course brought the challenge of new content and new approach, Territorial Games was an opportunity for PSTs to learn to teach about an unfamiliar pedagogical model (TGfU) that was used to teach content more familiar to PSTs, (i.e. team sport). It was also an opportunity for me to make changes to my teacher educator practice implementing MBP. Based on experiences and reflections from the previous three courses, I continued to support PSTs in learning both about and through TGfU. However, acting on feedback provided by PSTs from the Movement Concepts and Gymnastics courses, I decided that in making the unfamiliar familiar, it was necessary to focus on learning about TGfU for two classes before I began to integrate ideas related to learning through TGfU.

As outlined above, PSTs were introduced to TGfU through a brief slideshow. In order to learn more about TGfU, PSTs engaged in learning through a CL approach. For example, PSTs engaged in common CL strategies such as the Jig-Saw method, but also took responsibility for a specific CL role (e.g., leader, recorder; see Appendix A), which contributed to the final product of a TGfU website. PSTs continued their learning in the gym or on the sports field after the second lesson as they participated in invasion games that

required them to learn *through* TGfU (i.e., by being active participants in playing of a modified game, answering focused questions, playing a second game based on the first game and responses to the focused questioning, continuing in this fashion for three to four games concluding in review and closure), and *about* TGfU (i.e., discussions from an educator's perspective, theory revisited on chart paper; see Figure 14, course artifact Territorial Games, May 2014).

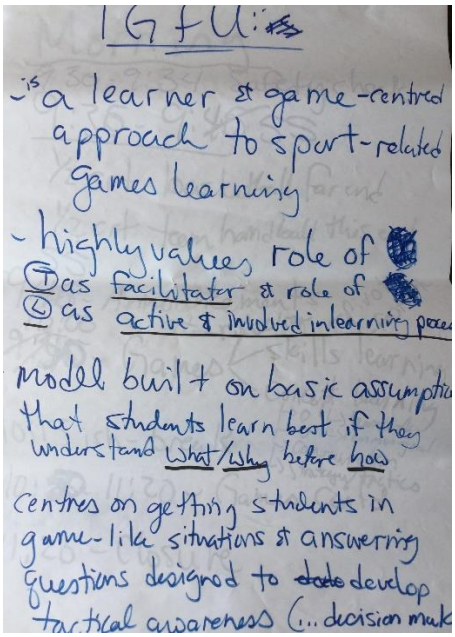


Figure 14*: Example of flipchart used to learn about key components of a TGfU approach.*

From analysis of PST data, it became apparent that specific techniques and methods I used to support PSTs in learning both about and through TGfU were more readily accessible in PSTs' memories. According to PST data, this is partly attributable to it being the most recent course in their memory at the time of the interview but also because of the familiarity with PE content (i.e., games and sports). For example, David and Hunter had completed all three distinct courses and experienced four different models. They said:

> So, I could kind of have more focus on TGfU than learning the sport. Like dance, I was pretty focused on learning how to dance, and [in] Gymnastics

> also with learning how to do gymnastics. But with TGfU/Territorial Games, I had a lot of understanding [of the PE content] already, so it gave me better time, more time, to kind of understand what TGfU was. (David, Interview 1)

> TGfU, I feel it was a bit more concrete. It just made more sense to me in general because of the activities I was into, but I think we did have a little more time in class before [we went to the field]. (Hunter, Interview 3)

During a focus group interview Craig, who had completed Gymnastics the term before the Territorial Games course also commented:

> I just know that through both of those courses that during TGfU [Territorial Games], I just remember having a bit better general understanding that I didn't necessarily have during the first course. I attribute it to both [familiarity with content and previous exposure to pedagogical models] because I guess I'm more comfortable with field sports than I am with gymnastics. I don't have a background in gymnastics, but at the same time […], it definitely made it easier with the doing it [learning about and through models] the second time around as well. So, I think both were factors.

Unlike the Movement Concepts and Gymnastics courses, familiarity with the content of the Territorial Games course left more time for PSTs to focus on learning to teach using a new pedagogical approach; that is, using TGfU as part of MBP.

PST experiences such as these signal a need for me to consider not only my practice of supporting how unfamiliar approaches can become familiar to PSTs, but also of the placement of course content within the PETE program. For instance, this analysis may be interpreted as indicating a need for the *course with the most familiar (or appealing) content* to PSTs, like games, to *be placed at the beginning of the program*. This may reduce the amount of newness of both content and pedagogy and provide the opportunity to focus more clearly on MBP. However, given my experiences as the teacher educator in all courses, I question whether the limited

amount of experience PSTs have with certain content (like movement concepts, dance, and educational gymnastics) may also bring with it more openness to new approaches. This is because there may likely be little to no expectation for how the T&L might be approached. For example, Gerald stated: “When I got into gymnastics, I didn’t know what the overall outcome was going to be, what kind of teaching styles or what kind of models were going to be used” (Interview 2). Conversely, past experiences with content such as territorial games, and ways in which it was experienced as a learner, may contribute to greater resistance to unfamiliar approaches. However, since there were two PSTs in this study who completed only Movement Concepts, but none who completed only Territorial Games, strong conclusions cannot be drawn from the data.

6.1.1.1.1.3 When pedagogy and perspective (educators, instructors, leaders) are unfamiliar

In addition to the newness of MBP, and in one instance, the newness of the content, the expectation to assume the unfamiliar role of future teacher was also unsettling for PSTs. For example, Brian said:

> I think what made it challenging for me is because when you’re learning about it, you’re trying to picture yourself doing it but when you’re learning through it you’re seeing the effectiveness of it, but you’re also focused on what you’re learning and how to put yourself in that perspective of *if I was going to teach this, would I do this or how I would do it differently*? (Interview 3)

Elizabeth also felt that thinking in terms of future practice “took a lot of getting used to the fact that I’m not just learning this for myself, I’m learning how to teach this to somebody” (Interview 1). However, months later, while Elizabeth still found learning simultaneously

about and through MBP challenging, she also came to value this approach as supporting her development as an educator:

> …it was challenging in the sense that I had never learned this way or I had never been taught this way and I finally—it kind of felt like a relief that finally I had a course that was teaching me how to teach because that's what I want to be and most courses don't offer you that (Interview 3).

On the surface, PSTs were expressing simultaneously learning about and through MBP as challenging because of its newness. Beneath the surface, their reflections expose many assumptions about what it means to be a PST in a PETE program and what they thought they would likely be learning. For instance, Lortie's (1975) notion of the apprenticeship of observation suggests that PSTs were likely expecting that learning to be educators would be the same as their learning as pupils, and when it wasn't, it was perceived as challenging.

While there were challenges learning about and through MBP with respect to the newness of content, pedagogy, and/or perspective, PSTs also identified specific teaching strategies that supported their learning about and through MBP.

6.1.1.1.2 Other specific teaching strategies as part of learning about and through MBP

In Chapter 5, I addressed ways I could have more effectively and efficiently supported PSTs understandings of MBP. However, based on data from the four courses, PSTs also reported that there were instances when *my teaching intentions and actions strongly connected course content with a MBP approach,* which influenced their understanding of MBP and their development as teachers. For example, anonymous exit slips (September 11, 2013) revealed that PSTs were already recognizing TPSR as a "key concept" of the Movement Concepts course after only two weeks of classes. One PST wrote:

> Kellie's approaches brought together key concepts such as the levels of TPSR…After most, if not all activities, we talked about how what games needed different levels of TPSR. This communication, along with participation in the games, really helped me understand the different levels of TPSR. For TPSR lesson [learning] plan, we went through a whole class that modelled it. We went through each level, and she would continuously remind us and tell us what "relation [relational] time" was, for example.

As well, when asked about their experiences of learning about teaching PE content based in MBP, PSTs reiterated that my teaching actions strongly connected course content with a MBP approach, as evident in the following statements:

- I have learned that teaching and learning PE content based in MBP can be beneficial to learning and understanding movement concepts as well as dance.

- I have learned that movement concepts and dance can be an outlet to teach social and personal responsibility. I have also learned that these MBP are crucial for the survival of the [PE] program.

- MBP opened my eyes to a whole new world of physical activity because none of my PE teachers ever used it. (anonymous end of term feedback, Movement Concepts, Fall, 2013)

Similarly, when asked what PSTs learned about T&L PE content based in MBP pedagogy during interviews, the following connections were made:

- Models-Based Practice is a way to bring variety into the classroom and also a way to bring opportunity for the class to succeed and also how it can be beneficial for lifelong physical activity and how it can tie into physical literacy. (Brian, Interview 3)

- I learned that if it's [PE content] based on MBP, you get a lot more out of it than if it's just going through the activity itself. Like again, with TPSR, you will learn your responsibility levels along with it [PE content], with Peer Teaching, you learn your leadership, your roles. (Hunter, Interview 3)

- The inclusive and holistic approach is kind of the main concept of Models-Based Practice. And at the same time, kind of rather than spoon-feed the students [pupils] letting them learn for themselves. (Craig, Interview 1)

- You have to know MBP well enough to apply different methods depending on what you see is working well with students [pupils]. (Craig, Interview 3)

- That there is a lot of organizational things that go into PE class. Like when you do a model, you're teaching it [PE content] through a model; you have a set guideline, the way you're going to do things. (David, Interview 3)

- TGfU is not just going in and teaching them the skills; it gives them how to better understand the game completely. And then Peer Teaching and Cooperative Learning gives them a chance to actually think in the gym rather than just go and do, run, kind of thing. It gives them a chance to think and work things through. So that works in our advantage to, for other teachers and other subjects. If they say we are just doing activities and we're actually thinking in the gym. (David, Interview 1)

When asked what specific techniques and/or methods I employed that facilitated MBP learning and understanding, PSTs most often referenced "*repetition.*" However, as stated earlier in this chapter, repetition must be purposeful; in this case, focused on experiences required to understand MBP and connected to learning about and through. Some of the ways PSTs found repetition supported their learning were:

- applying readings from the classroom to the gymnasium

- making connections between learning through MBP in the gymnasium to course readings

- learning in class first and then implementing the model in the gym/on the field

- moving back and forth between learning in the classroom and in the gym/on the field

- discussing MBP in the gym, then participating in it, and discussing it again

revisiting course concepts, for example, from the flipchart as a "continual history of what we've already covered" (Julie, Focus Group)

- and the continuation of models from course (Brian, David, Elizabeth, Hunter, Amy, and Scott, Interview 1; Elizabeth and Julie, Interview 2; Craig, Focus Group).

A colleague also noticed repetition clearly apparent in my teaching approach but felt that my questioning was:

> …relentless, but in a good way. If they couldn't answer the question, you [Kellie] would rephrase. If they still couldn't answer, you would rephrase again or ask a student [pupil] if they could rephrase. If they still couldn't answer, you would give them hints in the way of reminders of previous classes or lead them a little more with part of the answer. (personal communication, F. Toner, November 4, 2013)

My colleague felt that this was a strength in my teaching because allowing PSTs to grapple with questions was reflective of what it would be like as a teacher faced with making pedagogical decisions. However, in this context, PSTs also still had the support of those sharing their experience, ultimately supporting their understandings of MBP, but also some of the realities of teaching such as pedagogical decision making. There were many other instances of repetition being noted as supporting the learning of MBP. For example, other responses included:

- following the model every day
- course artifacts such as flipcharts to review from last day, handouts, videos, and readings prior to class
- planning and watching others teach
- communication: "I think the number one thing that helped me through all the courses was the constant communication that you had with all of us. It really helps a lot because if a teacher doesn't have communication with the students [pupils] about, like if you had anything, if even one little thing was wrong, an improvement needed or anything was incorrect, you would e-mail, notify us right away. So that really helped me a lot, get a better understanding." (David, Interview 1)
- readings that showed that others in the field were using models, and benefits of models such as meeting the needs of diverse learners
- reflections (i.e., making connections assignment)

- feedback from Kellie, classmates, and readings.

Interview data also showed that PSTs valued other ways I was supporting the unfamiliar in becoming familiar, such as *incorporating a variety of instructional approaches* to support understanding about and through MBP. For example, Amy commented:

> I think it was ensuring that we had an understanding of it [course content]. So, like giving us assignments was key because that way, we would do an activity or do a report or website assignment to actually understand the material. Implementing them [models] into your own lessons was really key because you would stop the class and say listen this is this model here or this is a teachable moment for this or that. So, implementing them into your own lesson [learning] plans was really good. Also, when we had to make our own lesson [learning] plans and coming to see you, that was really helpful because you could let us know, oh, maybe you could take a different approach with this, and this also includes this. Giving us feedback was helpful because we can see if we're using the models correctly. Any of the content through email was really helpful because that way, like I said, certain learners prefer to learn by reading on their own and develop their own knowledge on that. So, I think there were many specific ways. Feedback was really crucial. Implementing it yourself was huge as we could see in our own way, and assignments were helpful because that way, we learned about it one way or the other (Interview 2).

As these data show, PSTs identified both general and specific ways in which my teacher education practice supported their learning about and through MBP. Reflecting on PSTs' experiences of my practice (Russell, 2007) confirms that my teaching actions, such as integrating course content with learning both about and through MBP, contributed to making unfamiliar practices more familiar to PSTs. Similarly, building community was also found to support PSTs learning about and through the unfamiliar pedagogical practice of MBP.

6.1.2 Community Building

As a beginning teacher educator in a co-teaching situation, I was introduced to Kosnik and Beck's (2009) text, *Priorities in Teacher Education: The 7 Key Elements of Pre-Service Preparation*. One of the seven priorities that my teaching partner and I implemented and researched was *classroom community and organization*. Similar to previous research (see Baker, 2015; Fletcher & Baker, 2015), and as explained in Ch 5, the ways in which I have focused on building a sense of community in my PETE classes continue to be valued and viewed as important to PSTs in their current studies and future teaching practice.

The type of community I sought to develop was based on Wenger, McDermott, and Snyder's (2002) view that "a strong community fosters interactions and relationships based on mutual respect and trust. It encourages a willingness to share ideas, expose one's ignorance, ask difficult questions, and listen carefully" (p. 28). My purpose in building this type of community was to support PSTs in finding greater meaning in learning situations by feeling a closer affinity to other community members (LePage et al., 2005). Ultimately, I viewed building community as an opportunity to support PSTs by developing appropriate and professional interpersonal relationships with and between PSTs as they were learning unfamiliar content (i.e., movement concepts & dance, educational gymnastics, MBP) (Azzarito & Ennis, 2003; Battistich et al., 1997; Jennings & Greenberg, 2009). What I had not considered was the potential for community building to support PSTs' implementation and adoption of concepts they were learning in the courses beyond the university context.

The sense of community that I was intentionally fostering resonated with PSTs. As suggested in Ch 5, many PSTs reported that community supported acceptance and inclusion amongst peers. For instance, Amy's apprehension about how she would be received by her

peers in her first activity-based class (Movement Concepts) was averted as she found she entered a classroom culture that emphasized acceptance:

> Personally, when I first came into the class, I was quite nervous because I felt that I may not fit in as well as other PSTs, mostly because the majority of the PSTs are from [this city]. However, I learned that no matter where you are from, your gender, or the colour of your skin and the culture you come from, you'll be accepted in this classroom environment (Journal September 25, 2013).

Julie also felt that the intentional focus on building community supported her in finding her place within the group, stating:

> I often feel I am different from the rest of the group, not necessarily an outsider (our classroom community wouldn't allow for that), but I have begun to feel less un-like my fellow classmates. I like how you [Kellie] addressed that many people had put this into their reflections; it allowed for that conversation to naturally occur. Since that discussion, I have had different conversations with other [post-secondary] students [PSTs] not only in this particular class, but in my others as well, on how we learned as children and how that can affect how we approach teaching and learning in the future; not only for negative experiences which may create apprehensiveness in approaching something as an adult, but also positive ones. (reflective journal Feb 11, 2014).

Community building was also identified by PSTs as one of the most enjoyable aspects of the courses, and even of their whole university program. Craig explained:

> When I came in here, like I said, I'm from a small town. I've met a lot of people, and I've grown really close to a lot of my classmates. [In] My other courses I found there's no sense of community but with [the] Phys. Ed. program, there is a good sense of that. (Interview 1)

David found the sense of community to be the most enjoyable part of his four years of university, so much so that it's what helped him attend classes:

> Based on the community that you [Kellie] built when we had those classes, our class was probably the closest class I've ever seen within a community within the university. So that is probably my favourite part so far. Helps me go to classes. (Interview 1)

As well as class attendance and feeling some affiliation and kinship with peers, David elaborated on how community supported his understanding of course content:

> I think I just said about this in my last interview, but first going in the school and we didn't know anyone in our class, and then we built a community. And once we built a community every single semester, we got closer and closer so that everyone was willing to help each other too. If you don't understand something, you've got twenty other people in your class that you can go to and ask if you didn't understand. (Interview 2)

Similarly, as also shared in Chapter 5, Elizabeth elaborated on ways in which the building of community had supported her in attending class and the confidence to be more fully involved in the learning:

> Well, honestly, I found the biggest difference going in class from before we ever met anyone and [then] got to know them has been that it's much more enjoyable to go to class. After our class you could tell we were all best friends by the end of the term. I think that community makes it a lot easier to want to go to class. And then once you're there, you know that no one is judging you if you do something wrong…So you got to learn more, and participate more, and ask more questions because you weren't scared of what other people had to think…(Interview 1)

As these interview and reflective journal excerpts reveal, the sense of community I had intended to foster was supporting PSTs' learning by developing stronger feelings and social and emotional connections with other community members (i.e., classmates and peers). PSTs explained that the connections they forged encouraged them to attend class, built their confidence to the extent that they felt their ideas and views were valuable and should be shared, and built relationships in ways that PSTs felt supported by others if they did not understand course content.

While feeling supported to learn and make mistakes in a non-judgemental space is important for all learning, it is perhaps especially so when challenging PSTs to reconsider not only what has been done in PE in the past, but also what we might want to do in PE in

the future. For example, Cameron (2014) attempted to support PSTs in reconsidering the T&L of PE by challenging their previous PE experiences. While well-intentioned, Cameron's analysis of this experience serves as a reminder that in challenging PSTs in reconsidering what we do in PE, it is imperative that a sense of community, one that includes the teacher educator, is developed in ways that provide a space where experiences, views, opinions, ideas, and beliefs are valued and respectfully interrogated. Given that PSTs likely share similar struggles, it is important to develop community in ways that PSTs feel they can turn to one another for support in negotiating the unfamiliar (Sumsion & Patterson, 2004).

While I had intended for community building to foster interactions and relationships in ways that would support PST learning, PSTs expressed that community building in teacher education had value beyond course contexts as well. For instance, Scott planned to incorporate it into his future practice:

> In conclusion, it just goes to show how much more smoothly a class can run if you have a group of students [pupils] who are fully engaged and have built a strong community amongst each other and the teacher. The aspects of being instructionally effective that we have learned throughout this course, will help promote this type of setting, and I will definitely remember this in the future either as a physical educator or a classroom teacher (reflection journal, Winter 2014).

While Scott was looking to the future, Julie had already begun to integrate the practice into her part-time job through the use of TPSR concepts, such as relational time and group reflection:

> Just to create that community environment, that we're not just clerks working at a desk, that we are a unit cohesively working together. I saw how TPSR brought the classroom setting together, and I thought that really checking in with each person before we start our training, before it got so busy, before we throw things back and forth, before the phones start ringing and you get so busy, to check in and see what mental state everyone is in before going to work was something I wanted to do as a

> supervisor. And then, at the end of the shift asking "How did you feel about it?", "What could we have done better?" or "What could I have done better as a supervisor?"; "What could you have accomplished." (Interview 2)

These journals and interview excerpts show that PSTs were feeling supported as people, learners, and future professionals. These results are consistent with previous research findings (see Baker, 2015; Fletcher & Baker, 2015), which indicated that the community I was intentionally building within PETE supported learning by providing an environment of acceptance, inclusion, and enjoyment that motivated and engaged learners. As an extension of previous findings such as these, results from this study also indicate that my intentional focus on building community within PETE courses translated into PSTs viewing community building as having a place in education and non-education (e.g., supervisory roles at work) contexts. Additionally, as elaborated on in the next section, data also revealed that PSTs were connecting community building and MBP as a by-product of my focus on building community rather than an intentional outcome.

6.1.2.1 Connections between community building and MBP

While PSTs' views on their experiences indicate that building community in PETE has many benefits for them, not least of which is supporting learning in a general sense, some PSTs' ideas, views, and perspectives of their learning experiences hold promise for the notion that community building can support an understanding of MBP implementation. For example, Brian stated:

> It [building community] helped me have an understanding of what I want to offer as an instructor just by offering a variety of the different models. But it [building community] also broke it [MBP] down in a sense, where it's not about teaching the content as it is more so about creating a learning environment which is almost just as important as the content because it

> helps facilitate learning. And I kind of think that is what will help me improve my future practice the most is creating a good class community and stuff which all the models do (Brian, Interview 2).

David was also beginning to make connections between building community and MBP as supporting his learning as a PST and his future pupils' learning:

> I feel that it [community building] is an approach that a teacher can take, and they can intertwine it with a model. It's so easy to do. Just take 5 minutes out of a class, do the certain little community, like face game or play games we played, but you can intertwine the approach into the models very easily, the community approach very easily in any model (Interview 2).

Although David's view of the integration of community building and pedagogical models may be interpreted as overly optimistic or idealistic, it remains that he made connections between pedagogical approaches (i.e., community building as supporting MBP) —data that could prove instrumental in future MBP implementation.

Conversely, and once again highlighting the complexity of learning about learning and learning about teaching, Craig viewed pedagogical models as supporting the building of community: "I think Peer Teaching and Cooperative Learning would definitely build the classroom community because I think it would make the teacher focus on actually helping, not just teach the material and there is no sense of community" (Interview 3). While not explicitly connecting pedagogical models and community building to his future practice, Craig was beginning to make connections between MBP and what he viewed as effective teaching.

Julie made similar connections between TPSR and community building, stating:

> TPSR really laid the groundwork for like that positive community. It maybe wasn't necessarily "this is what we're doing, step 3 or TPSR", but

> having that as the foundation of each class really allowed for that atmosphere for people to get out of their shells more. TPSR specifically really developed that community-friendly environment. If more instructors learned about that model, it would improve just the general learning environment. When you're in a relaxed atmosphere such as this class was, you're way more free to ask questions and be comfortable trying new things.
>
> Really, the interpersonal part of TPSR really resonated with me. That going around and checking in with each student [PST or pupil] before you start the class or before you're physically active; it kind of personally put me at ease a little more. You're being welcomed back into that community that you [Kellie] created, welcomed back into that classroom setting; it kind of let you leave everything else outside of that gymnasium. And having the reflective time at the end to really check in and say what did you really do and how did you feel about that and having the question, not just sitting back and having someone think about it but having the prompting questions of what you want to reflect on specifically. That was great. It wasn't just move, do this, play the sport; it [the interpersonal part of TPSR] kind of connected it [content and approach] more (Interview 1).

In addition to suggesting that some pedagogical models support community building, Julie's reflection shows a growing understanding *about* TPSR that was informed by her learning *through* TPSR. For example, Julie is interpreting the purposes of TPSR—to support the development of the affective domain through the physical domain (Hellison, 2011)—through her experiences as a learner in a TPSR-based course.

The connection between community building and growing understandings of MBP is important because T&L through MBP has been noted as a difficult shift for teachers and pupils/PSTs (Casey & Fletcher, 2012). This has recently been confirmed by Casey and MacPhail (2018), who published the first and only MBP empirical analysis of MBP adoption in public school. PSTs connecting community building to increased understandings of MBP signals possibilities for supporting the challenges associated with the implementation of innovative practice such as MBP.

However, while there were connections being made between pedagogical models, MBP, and community building, the same PSTs also often struggled to make connections. For instance, while David had been making some connections, when asked if there was a specific instance in his learning of MBP that stood out as positive or negative, he asked: "Would like, building community be a thing? 'Cause that was one thing in the beginning that I thought was good. I have a question about that. Was that through TPSR that you would do that?" (Interview 1). David's initial struggle to make connections provided further evidence that even after completing multiple courses based in multiple models that PSTs were still challenged by the unfamiliar, and highlights once again the complexity of learning about learning and learning about teaching.

Chapter 6 Summary

Analyzing PSTs' data brought with it the realization that making some changes in my practice holds possibilities for supporting pedagogical innovation. For example, intentionally focusing on making the unfamiliar familiar through consistently teaching and learning about and through MBP are practices that supported PSTs in gaining deeper understandings of how they might incorporate MBP in their future teaching (Baker & Fletcher, 2017). As a result, I will work to develop this practice, as part of both my principles of practice implementing MBP in PETE, and my personal pedagogy of physical education teacher education (see Chapters 7 & 8). As well, PSTs reporting community building as having benefits beyond those I had intended, such as supporting an understanding of MBP, encourages me, and perhaps will influence others, to include

community building in pedagogies of teacher education using MBP, or perhaps other innovative teacher education practices.

Chapter 7 - Articulating Principles for Implementing Models-Based Practice in PETE

Loughran (1997) suggests that developing principles of practice is important in part because they serve as a pedagogical framework for practice and studying one's practice. Fletcher (2016) agrees that articulating and sharing PETE principles of practice has benefits for the teacher educator, colleagues, and PSTs, but also presents his principles of practice for examination as influencing policy. Studying my teacher education practice has also proved instrumental in developing a deeper understanding of myself and my practices as a teacher educator. Through an S-STEP approach, I developed and can now articulate my principles of practice in order to support my development as a teacher educator. For example, my principles of practice now serve as a pedagogical framework for my practice (Loughran, 1997). In turn, they affect the ways in which I am able to support PSTs becoming teachers, which has the potential to also impact their future pupils (Pinnegar & Hamilton, 2009). However, while it is important for my continued professional learning and development that I attempt to analyze and understand the reasons for my pedagogical decisions (Loughran, 1997, 2006), extending those understandings beyond the self through dissemination is an indispensable characteristic of quality S-STEP research (LaBoskey, 2004). This chapter, therefore, offers a synthesis of my results presented in Chapters 5 and 6 and adds to the research base generated by others who have shared principles of their teacher education practices (e.g., Berry, 2008; Bullock, 2012; Crowe & Berry, 2007; Fletcher, 2016; Korthagen et al., 2006; Loughran, 1997; Russell & Bullock, 2013), as well as contributing to the limited research on using MBP in PETE (i.e., Baker & Fletcher, 2017; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008).

7.1 Pedagogical Principles of Teaching and Learning MBP in PETE

The following eight principles have been formulated through thorough examination of my PETE practice and, as such, I am confident that they represent possibilities for my continued development as a teacher educator using MBP in PETE and for others interested in implementing MBP as part of their practice. My principles of practice are provisional and leave open the possibility for change with ongoing inquiry into teacher educator practice (Fletcher, 2016). This connects to S-STEP as a "provisionally rational form of inquiry" that rejects educational problems as easily and permanently solved with generic principles (Ovens & Fletcher, 2014, p. 11). Rather, principles provide research-informed recommendations and advice for pedagogical practice rather than exhaustive and objective truths (Russell and Bullock, 2013).

The eight provisional pedagogical principles of my PETE practice using MBP are:

(a) MBP is a way for teachers and teacher educators to enact social constructivist theories of learning in practice.

(b) A *modest approach* to innovation (such as MBP) focuses on both the intellectualized and emotional commitment needed by PSTs and/or teacher educators for sustained educational change.

(c) Teacher educators can support PSTs' and teacher educators' understandings of MBP in teaching and/or teacher education by sharing the thoughts that underpin their implicit teaching practices.

(d) Providing opportunities for beginning teachers to learn both about and through a models-based approach provides unique insights into using MBP as pedagogy in teaching and teacher education.

(e) Experiencing and examining alternatives to MBP provides PSTs with opportunities to practice pedagogical decision-making.

(f) Extending MBP to multiple contexts acknowledges that not all PSTs will become teachers and that MBP has applications in fields related to PE, such as recreation and sport.

(g) A *Lesson Zero* provides teacher educators and PSTs with a unique opportunity to make sense of MBP.

(h) Individual and group meetings support teacher educators and PSTs in crystallizing understandings of a models-based approach to teacher education and teaching.

In the following sections, I examine each of the eight principles in depth.

7.1.1 MBP is a Way for Teachers and Teacher Educators to Enact Social Constructivist Theories of Learning in Practice

One of the fundamental principles of teacher education programs and practices is "an emphasis on those learning to teach working closely with their peers" (Korthagen et al., 2006, p. 1032). Examining my practice supports the implementation of MBP in teacher education through a social constructivist perspective that emphasizes PSTs working closely with their peers and with me as the teacher educator. In Chapter 5, I discussed, at length, ways in which I enacted a social constructivist approach to using MBP in PETE. In support of this first principle, I will provide some brief examples that were addressed in previous chapters.

As I examined and became aware of the challenges aligning my beliefs of learning as socially constructed with my practices (e.g., associating teaching as telling and teaching as planning) I was able to more consistently enact a social constructivist approach to using MBP in PETE (i.e., intimately involving PSTs in their learning). PSTs were engaged in the co-construction of understandings of MBP through my enactment of practices such as building community, asking PSTs to put themselves in the place of others (i.e., past and current learners and teachers), and reflective questioning, discussions, and journaling. According to PSTs, these approaches resonated with their learning, and many identified how

these approaches and strategies supported their understanding of pedagogical models and MBP. Results of this research, therefore, suggest that a social constructivist approach aligns well with the implementation of MBP in teacher education and supports PST learning of MBP.

7.1.2 A *Modest Approach* to Innovation (such as MBP) Focuses on both the Intellectualized and Emotional Commitment Needed by PSTs and/or Teacher Educators for Sustained Educational Change

In developing principles of practice for implementing MBP in PETE, I was attracted to Tinning's (2002, 2019) ideas of a modest approach to innovation. In his case, Tinning recommended a modest approach to critical pedagogy based on many PSTs expressing resistance to some of its core elements. Although my research was not focused solely on critical pedagogy, I feel that the same philosophy and ethos can also apply to other innovations such as MBP. My approach to teacher education practice using MBP may be thought of in terms of a *modest approach to pedagogical innovation* through "consciousness raising" (Tinning, 2019, pp. 8-9). For instance, rather than placing myself as an expert and suggesting that MBP *must* replace the PE that PSTs experienced as learners, a modest approach involved respectfully examining PSTs' past PE experiences (of selves and others) as legitimate lived experiences. The intent here is to raise PSTs' consciousness with respect to the limitations of solely experiencing multi-activity approaches, and to consider possible alternatives without demonizing their previous experiences and possibly bruising a self-identity that may have been forged in that context.

In enacting a modest approach to using MBP in PETE, I subscribe to Tinning's (2002) view that "rational discourse to problematize taken-for-granted practices will be insufficient to change those practices unless there is a corresponding level of emotional commitment to change" (p. 236). As a result, Tinning (2002) suggests this requires both:

> (a) the recognition that having PSTs learn both about (intellectualization) and through (lived experience) MBP are integral to develop an embodied emotional commitment in students [pupils] (Heron, 1981), and
>
> (b) that there needs to be an embodied emotional commitment to changing current practice or the risk of reverting back to and/or reproducing traditional practices looms large (Dinan-Thompson, 2001).

As a result, my approach to implementing MBP in PETE is supported through consciousness raising that involves both intellectualization and emotional commitment by PSTs. In accordance with Tinning's (2002) first point, intellectualization and emotional commitment were achieved, in part, by PSTs simultaneously *learning about* MBP while *participating in* (lived experience) MBP (see Chapters 5 & 6). Intellectualization was also supported by, for example, engaging in rational discourse of educational theory and practice (i.e., about PE, MBP, pedagogical models, and community building theory, see Chapters 5 & 6). Emotional commitment was largely achieved through community building practices that focused on the development of relationships (e.g., between myself and PSTs, between each other, and between the theory and themselves as future educators, see Chapters 5 & 6).

Data from my research clearly shows that PSTs had developed both intellectualization and emotional attachment towards MBP. For instance, more than a year after their first and only exposure to MBP, several PSTs with predominantly fond memories of their highly traditional skill-drill/practice-game sport-based experiences of PE repeatedly demonstrated an intellectualized commitment to MBP speaking in terms of the *benefits* MBP

would have for them as future teachers and their future pupils. Hunter viewed MBP as "improving your teaching practice" (Interview 2), while Craig said, "I think it would be very realistic [to use MBP in my future teaching practice]. I don't see any reason why I couldn't implement it. I guess I've seen it; I've seen the benefit of it" (Focus Group Interview). Gerald became so committed to the idea of MBP that during a job interview, he discussed the benefits of MBP (Interview 3), resulting in the interviewer commenting that he could see the benefits of using pedagogical models in their recreation programming. In addition to an intellectualized commitment, Gerald also cultivated an emotional attachment to MBP, stating that, "I think I will definitely use it. It will help me. Because I experienced it, and I had a good experience that I think that the kids will have a good experience" (Gerald, Interview 3). Similarly, Elizabeth felt that if she benefited from her experiences learning with MBP, so would her pupils:

> Yes, I do see myself [using pedagogical models in my future teaching] because I benefited from it. I think that when we did it within the classroom, all of us seemed to benefit from it and get a lot from it. And [then] when we went to the schools trying to do what we learned with the students [pupils] I saw that it worked for them too. (Elizabeth, Interview 2)

Another sign of PSTs' commitment to MBP was the difficulty they had in identifying disadvantages of implementing MBP in their future practice. Elizabeth said, "It's hard to think of any drawbacks," but she did worry that pupils would interpret time spent on the cognitive domain as taking activity time away (Interview 3), a challenge with which I could relate (see Chapter 5). David said, "I don't see very many [disadvantages to using a MBP approach]. Honestly, I can't. It's pretty good. I think it's good for the students [pupils]" (Interview 1). In addition, PSTs shared fond memories of how MBP supported the development of strong friendships and supportive classmates (see Chapter 6), which led to

an emotional commitment to this particular innovation. This is a promising sign that PSTs may implement MBP in their future practice given Tinning's (2002) conviction that emotional commitment, in combination with intellectualization, provides the greatest chance to support change in practice(s). What remains to be seen, however, is whether PSTs hold a lasting commitment to the implementation of MBP. As PSTs began to experience organizational socialization (Lawson, 1983a, 1983b; Templin & Schempp, 1989) during a four-month internship, several expressed increasing doubts that they would be able to meet the demands of their future teaching positions while also implementing MBP (focus group interviews). This suggests that the PSTs from this study may face the likelihood that MBP could be *washed out* (Zeichner & Tabachnick, 1981) by the onslaught of traditional approaches that are pervasive in schools.

However, data analysis also clearly demonstrates that PSTs valued the diverse ways in which I invited them to consider innovative practice (i.e., MBP) as part of their future pedagogy. Challenging PSTs' preconceived ideas about T&L by way of my consistent invitation to the innovation (rather than undermining their previous experiences and threatening their identities) worked to develop a relationship of mutual respect that opened a space for PSTs to not only consider innovative practice, but to become intellectually and emotionally committed to MBP as a possible pedagogical approach for their future practice. This aligns theoretically with Tinning's (2002) conceptualization of modest approaches in teacher education in that I made deliberate attempts to support PSTs' intellectual and emotional commitment to change that supported consciousness raising of MBP as a possible PE future. I did this in the hope that PSTs would develop strong enough attachments to implement MBP, if not at the beginning of their career, at some point.

As I conclude the discussion about a modest approach to using MBP in PETE, I must acknowledge that Tinning's (2002) *modest* approach has not been without criticism (see Tinning, 2019). For example, it has been suggested that a modest critical approach takes "the heat out of the drive for change in PE" (Fitzpatrick, 2019, p. 6). However, the findings of this research support the notion that a modest approach focused on consciousness raising, intellectualization, and emotional connection can actually put the heat on the drive for change needed in PE. As presented in Chapter 6, a year after PSTs learned about and through MBP in PETE, and after most experienced a six-week school placement and four-month teaching internships, PSTs from this research still embraced MBP as a possible pedagogical approach for their future teaching.

7.1.3 Teacher Educators can Support PSTs' and Teacher Educators' Understandings of MBP in Teaching and Teacher Education by Sharing the Thoughts that Underpin their Implicit Teaching Practices

Teacher educators sharing their thoughts that underpin implicit teaching actions has been identified by researchers of teacher education as instrumental in developing pedagogical decision making in beginning teachers (e.g., Crowe & Berry, 2007; Loughran, 2006; Swennen, Lunenberg, & Korthagen, 2004). Loughran (1996) referred to this practice as *thinking aloud*. However, there are a limited number of studies that apply this practice to the implementation of MBP in PETE (see Baker & Fletcher, 2017; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008). My third pedagogical principle of using MBP in PETE—sharing pedagogical reasoning that underpins MBP teaching decisions and practices—supports previous research through the use of a short yet powerful word: "Why?"

I was intent on supporting PSTs in raising their consciousness about MBP as a pedagogical approach, aiming to foster a class and T&L context that would serve as a site for inquiry (Loughran, 2006). Two ways I intended to enact this goal were by inviting PSTs to critique my approaches to teaching (a key aspect of which was MBP) and consider my teaching actions and decision in relation to themselves as future professionals. For instance, learning plans in all four courses invited PSTs to consider my teaching actions and decisions in relation to themselves as future professionals as demonstrated in my use of phrases such as: "So, [thinking about the approaches I just used] what will you do when you are on 'the other side of the desk'?", and "How and in what ways do you see this [particular MBP approach used during class] applying/not applying to your personal improvement in teaching practice?" (see Chapter 5). PSTs were also invited to choose and implement approaches beyond those presented in class and consider their pedagogical reasoning for those choices. When PSTs were required to team-teach, for instance, I prompted them by saying, "You can use one of the approaches we have used so far this term, for example, CL or TPSR, or a different approach. Keep notes on your thinking/process/activity/decision and WHY you made those decisions" (Learning plans, Movement Concepts 1 & 2).

As well as inviting PSTs to critique my practice as a way to foster a class context that would serve as a site for inquiry, I was intentional about supporting PSTs in making their own turn to self (Pinnegar & Hamilton, 2009). For example, on the second day of the first Movement Concepts course, in addition to critiquing my teaching approaches (with which they might have limited exposure as this might be their first class with me), PSTs were invited to critique (to themselves) teaching practices of their past and current

teachers/teacher educators in relation to themselves as learners, PSTs and beginning teachers. I wrote in my Learning Plan:

> We should be asking ourselves the five w's of class [content and approach]. Why is the instructor doing this? How else might I do it? Where can this be used-classroom, PE…? Who could use these strategies/methods/ideas-just physical educators? What will I take away with me? To support you in questioning like this, I am trying to be intentional with telling you what I am doing and why. Not that this means you have to want to do it the same way, but to show that I plan with purpose as a way for you to begin to consider the same [what your plan and purposes might be]. (Learning Plan, September 6, 2013)

Consistent reflection on the reasons underpinning pedagogical decisions supported PSTs' understanding of MBP as a pedagogical approach. For instance, when asked what specific techniques, methods and/or approaches I used in the classroom, gymnasium, on the field, and/or through D2L communication that facilitated their learning of MBP pedagogy, Chris stated:

> Now that I think back on it, after every activity, we reflected on *why* we did this and *how* it can be applicable. Kinda' gives you a better understanding of what you're [Kellie] doing and why you're doing it. (Focus Group Interview)

In the first interview, Chris also mentioned that being asked "why" helped him reflect on and understand MBP:

> So, when we were asked why and had to reflect, like on Models-Based Practices, like TGfU, Cooperative Learning that kind of thing, we could look at what we've done and reflect and compare that with all the information that we already knew and understood and that kind of helped us compare and keep track…I think just develop and understand the practice of MBP. (Interview 1)

Interviews also indicated that other PSTs identified that reflection opportunities such as question and answer sessions (which included asking why) supported their understanding of MBP (Brian, Gerald, Hunter, Amy). Brian stated that reflection "helped me learn about

MBP because it was an opportunity for me to take a moment to think about your [Kellie's] approach and methods and the effectiveness of those" (Interview 2). Hunter valued the time he had to reflect during and after class, saying that, "…if there were no reflections, you would leave the gym and just forget about it. But if you had to reflect about it later—it kind of gets it into your head a bit more." PSTs even joked about how often I addressed the why of my pedagogical decisions sharing that, "…we joke about it now—that it was never give us the answer. It was always why and how. But it helped us out in the long run" (Gerald, Interview 3).

7.1.4 Providing Opportunities for Beginning Teachers to Learn both About and Through a Models-Based Approach Provides Unique Insights into Using MBP as Pedagogy in Teaching and Teacher Education

The importance of having PSTs learn to simultaneously think like pupils/learners and think like teachers has previously been highlighted by Crowe and Berry (2007). Russell and Bullock (2013) also suggested that it is unlikely that new teaching procedures will be adopted unless new and old teachers alike have experienced those procedures themselves and analyzed their effects on their learning. Thus, the most powerful form of teacher education may be teaching PSTs in the way teacher educators expect them to teach (Bransford, Derry, Berliner, Hammerness, & Beckett, 2005). Data from my S-STEP research provides further support for this line of thinking. For instance, simultaneously learning about and through MBP provided both an intellectualized and lived experience with MBP theory and practice. Reflecting the complexities of teaching and learning to teach, these experiences both challenged and supported PSTs' understandings of PE approaches and possible

commitment to MBP as a pedagogy they might adopt in their future teaching. This general angle was much of the focus of Chapter 6 and also highlighted throughout Chapter 5. For example, in Chapter 6, I suggested that while it is difficult for PSTs to simultaneously learn about and through MBP, the use of this approach ultimately supported PSTs in developing a deeper understanding of MBP by making the unfamiliar pedagogy of MBP more familiar to them. In Chapter 5, I also discussed several challenges of PSTs simultaneously learning about and through MBP, like time constraints, but also offered practices to offset these challenges, such as widespread adoption across a teacher education program.

In addition to data already presented in Chapters 5 and 6, approaching physical activity courses in PETE by having PSTs learn about and through MBP strongly resonated with many PSTs. For example, course readings, the use of the online course platform, and the opportunity to learn about models while participating in them (or "living" the models) and then employing them during team teaching supported, for instance, Brian's understanding (Interview 1). Craig also stated that while he preferred to learn *about* MBP, he recognized the benefits of also learning from the perspective of a pupil as deepening his knowledge of MBP (Interview 1). Conversely, Scott and David preferred learning *through* MBP, but recognized learning about MBP as supporting a deeper understanding than could be realized learning solely through MBP (Interview 2).

These data support my fourth principle of using MBP in PETE: that providing opportunities for beginning teachers to learn about and through MBP provides unique insights into using MBP as pedagogy in teaching and teacher education. However, while deeper learning can be achieved by having PSTs simultaneously learn about and through

MBP, there is also value in providing PSTs with opportunities to experience alternatives to MBP.

7.1.5 Experiencing and Examining Alternatives to MBP Provides PSTs with Opportunities to Practice Pedagogical Decision Making

Prolonged exposure to several pedagogical models across diverse PE content areas (e.g., games, gymnastics, dance) can lead to PSTs' growing confidence with and understanding of MBP (see Chapter 6). This supports ideas grounded in social constructivism, such as making sense of and constructing new knowledge through building on prior experience in diverse contexts. This also seems to suggest that offering whole degree programs based in MBP, similar to what teacher educator-researchers from Georgia State University in the United States describe (see Gurvitch, Metzler, & Lund, 2008), has the potential to lead to even greater gains in PSTs' learning. However, such an approach is not without limitations. For example, David's "a-ha moment" with MBP reveals some of the benefits and trappings of being exposed to one pedagogical approach from the same teacher educator:

> When TGfU was used it was like "It's not over my head anymore". That's when I knew it was not over my head because I understood [TGfU] completely. And then [Kellie] just kind of brought it back up that we were doing Models-Based Practice. We did Peer Teaching already. We did Cooperative Learning already. We did TPSR already. And once you said we already used those, I kind of thought back, and I thought, "Ok, this does work" and like "I see where she's going with everything right now." And once we got into Territorial Games, it kind of clicked. I thought, "Okay, I understand MBP and why it is, why she's using it." So, I found the main reason that I'm going to use that in the future was more of [Kellie's] teaching methods rather than the MBP. I don't know, you're [Kellie] really good at feedback and you're really good at being relational and things like that so when you bring those things in, you as a teacher, I liked those things. So now when you're [Kellie] just using MBP and bring

> that in, it gives me like "Oh, I like everything else she [Kellie] does so I'm going to bring this in and try it too." (Interview 2)

While David's confidence in MBP was growing, he reported that his motivation for implementing it in his future practice was largely based on consistency in my teacher education practices across four courses rather than with MBP as an overarching and theoretically driven approach to T&L. So, while PSTs may have benefitted from knowing what to expect from me and my teacher education practice—that is, having the same teacher, using the same approach, and the same pedagogical model linked with course content—this relative degree of consistency was also limiting. With little in the way of alternative approaches to teaching PE during their teacher education program, PSTs had limited opportunities to practice making informed decisions about a variety of pedagogical approaches. This may, in turn, affect their abilities to make informed pedagogical decisions as beginning teachers.

As well, while MBP is a student/pupil-centred approach to PE that carries claims for effectiveness grounded in evidence, limiting a whole program of study to one pedagogical approach does not align with some of my other pedagogical principles. For example, such an approach may send the covert message, especially if taught by only one teacher educator, that learning to teach consists of learning to teach like me, a practice which Berry (2008) argues against and one that does not adhere to constructivist pedagogy (Richardson, 2003). I suggest that having PSTs experience and examine alternatives to MBP is therefore essential, because it provides PSTs with opportunities to practice pedagogical decision-making that can support their development as teachers. This claim is supported by Hunter, who appreciated the opportunity to experience activity courses from a variety of approaches. He

said that this is what increased his confidence and resolve to use MBP for his future practice, stating:

> I just feel that [MBP courses] are courses that I understood very well. So being able to compare them through the other activity courses, I just feel that my opinion [of approaches] is more based on knowledge as opposed to kind of just guessing. You could have taught it [course content] the same way as other ones [other activity courses by other instructors], but then…we have one real image of how things are taught, but then you kind of gave us another way to go with it.

Hunter's experiences in courses that were based in pedagogical models, and others that were not, provided him with the understanding that there is more than one way to teach PE and physical activity content. He showed an understanding that as a teacher, he must choose an approach to the T&L of PE and physical activity content that is based on pupil need and interest, and the expectations outlined in formal policy documents. Based on these results, I suggest that PSTs be exposed to, and reflect upon, diverse approaches to the T&L of PETE, as there is potential to broaden PSTs' professional understandings that contribute to pedagogical decision-making.

7.1.6 Extending MBP to Multiple Contexts Acknowledges That Not All PSTs Will Become Teachers and That MBP Has Applications in Fields Related to PE such as Recreation and Sport

Individual pedagogical models have been proven to be effective inside and outside classroom contexts. For example, TPSR implementation has been investigated both within PE and extracurricular programs (Caballero-Blanco et al., 2013; see Chapter 3). Further, TGfU/Games Sense applications are present in both PE teaching and, more recently, sport coaching (e.g., Hewitt & Pill, 2018; Light, 2016; Pill, 2015; Pill & Hewitt, 2017). However,

research on MBP has focused solely on and within educational contexts. Such a narrow focus of MBP within PETE is worrisome as this has the potential to limit the perceived applications of MBP and/or pedagogical models to only "classroom" settings.

Approaching this research from an interdisciplinary perspective has opened my eyes to the possibilities of MBP beyond formal educational contexts (i.e., those in schools). I suggest that the onus is on teacher educators and other university teachers to broaden the scope of MBP implementation because: (a) teacher educators are well aware that some PSTs may never work in PE but rather in related fields such as recreation or community programming, and (b) teacher educators have a responsibility to acknowledge and include the realities of teaching in schools, which often includes extra-curricular T&L such as intramurals and after-school sports, clubs, and other recreational pursuits.

The Movement Concepts (TPSR and CL) and Gymnastics (Peer Teaching and CL) courses focused on learning how and why to teach K-12 pupils through MBP in different content areas. Prompted by the interdisciplinary approach to my research, I decided to focus on MBP applications within recreation contexts for Territorial Games (TGfU with some CL implementation). While in the Movement Concepts and Gymnastics courses I emphasized the development of a "quality physical education program" (Course Syllabi), the following objective was a point unique to the Territorial Games course syllabus: "Demonstrate a deepening understanding of the conceptual approach to physical activity-based contexts (e.g., physical education, recreation…)". This emphasized MBP as an "approach" and acknowledged that developing knowledge of MBP was a fundamental understanding within the PETE course objectives and that contexts would extend beyond PE. Furthermore, in the learning plans for the Movement Concepts and Gymnastics courses, I included several

provincial PE outcomes. In contrast, in the Territorial Games course, I stipulated that the learning plan outcomes had to be constructed by the teaching group based on provincial and national recreation documents. Specific practices such as discussions, exit slips, and PSTs' reflective journals included reflection on the implementation of models within the wider scope of physical activity contexts like summer recreation programs.

Interviews revealed that all PSTs identified pedagogical models (both individually and in combination) as having applications in contexts outside of education. Some PSTs also identified MBP as having applications in non-educational and non-physical activity settings. This is not to say that it wasn't sometimes challenging for PSTs to think about ways in which models and MBP might apply to other contexts. For instance, David was concise and confident during interview two stating:

> Yeah, recreational settings could be anything. It could be intramurals. It could be a dance class at a recreation center. [MBP is] something you could incorporate anywhere someone [is] facilitating a group of people; you could incorporate MBP. (Interview 2)

However, in Interview three, David began to show signs of doubt, commenting:

> Depending on the situation, I maybe could, if you had a recreation setting where it's not intramurals say. Say you have a basketball camp for a whole semester, and the same people are coming all the time; I think you can apply [MBP] in that situation. But if you were having intramurals and you had random people coming, and it's not the same students [pupils] all the time, it would be too hectic to keep up with everyone's understanding of what you're doing. So, I say if it's really strict recreation like basketball camp or gymnastic camp, anything along those lines where it's the same people, and they're always coming back, you could use it [MBP]. But intramurals? No. Even coaching, I don't think you really could just because…well maybe TGfU you could use that. So, I guess different models could be used in different contexts. Like TGfU would be good for using in coaching, but I don't think TGfU would accompany - now that I think about it using TGfU in a basketball camp would be great. TPSR would be hard to do or would it; I don't know because now I'm second-guessing myself. (Interview 3)

David's struggle to understand MBP as an approach to PE and other physical activity contexts is exactly the type of professional questioning that I was striving to support in PSTs. Struggling to understand the potential of MBP within and outside of PE contexts broadens the understanding of MBP as an approach that extends beyond teaching in K-12 contexts. This may prove beneficial to PSTs in their other potential roles and responsibilities as teachers such as coaching, and for those who find job opportunities outside the K-12 school context.

While David's interview response is reflective of the struggle of his peers, PSTs also identified multiple contexts in which they believed individual pedagogical models (TPSR, TGfU, CL and to a much lesser extent Peer Teaching) and MBP could be implemented like day camps, after school programs and sports, intramural programs, weekend teams, and senior citizen programs. For example, Julie, who was interested in pursuing Therapeutic Recreation, was the first to identify contexts beyond PE as being ripe for pedagogical model implementation:

> I can see being in a recreational setting when you're trying to get a group to work together or to brainstorm how to do a task, I can see implementing cooperative learning roles. Because, like I mentioned before, being in a classroom setting like I am right now and it being group work and kind of designating not those five specific ones [CL roles] but kind of pulling some out of the cooperative learning structure, I think it's a much better way of…it's a collaboration not just group work. (Interview 1)

Others eventually also identified applications for MBP in physical activity contexts beyond PE:

> Well, essentially, the way you would [apply MBP] in [a] physical education setting. But you wouldn't want to be focused on meeting the [PE] outcomes in recreation. I guess it would be more so for the enjoyment and for the understanding for the kids, I guess. To help understanding for the kids. It is obviously transferable because you're playing soccer in the

> gymnasium in a recreation setting, and you're still teaching the kids the skills, so you can use those [models-based practices] regardless. (Chris, Interview 3)

> I'm sure you could use it in a fitness class or in a recreational setting, like when I said I volunteer service-learning time, it could definitely be used there. Any activity setting. I think any group interaction it could work in. (Elizabeth, Interview 2)

> I remember saying that it can be used to structure different classrooms and recreational activities. I said about [the] Set for Life [children's afterschool program] that I am doing now; we can integrate that [some practices from models such as TPSR] into the kid's time with us. I also remember saying about how it [MBP] can be used with the senior citizens [physical activity programming] and stuff like that. I think that not all the pedagogical models can be used, but I think you can use MBP in any setting where you have a group of people. (Elizabeth, Interview 3)

Some PSTs even went on to share how they were currently applying the pedagogical models from PETE into non-PE contexts. For instance, Julie used TPSR to build community in her non-physical activity work setting (Interview 3) while Brian approached his community basketball program for children through a TGfU approach (Interview 2). As previously stated, Gerald felt confident enough with MBP having applications in recreational contexts that he spoke about its benefits in an interview for a recreation position:

> I applied for a recreation job. It was a four-week program before Christmas. I put it [MBP] on my résumé. I don't even know why I did it, but it just came to me. I went to the interview, and the people looked at me like I didn't have a clue, [thinking] "What is this anyways?". So, I had to sit down and just say these are the models that we learned. [The people interviewing me then said,] "Oh wow, maybe our recreation program will benefit from them." (Interview 3)

These interview excerpts reveal that PSTs are capable of not only considering MBP as an approach that can used in contexts other than PE, but that meaningful connections between MBP and other PA contexts can, and, I argue, should be made to support their overall professional learning, rather than only their development as prospective teachers.

7.1.7 A *Lesson Zero* Provides Teacher Educators and PSTs with a Unique Opportunity to Make Sense of MBP

Dyson and Casey (2016) suggest that a *lesson zero* is an essential part of introducing children and adolescents to the CL pedagogical model in school contexts. A lesson zero, the first lesson that introduces a pedagogical model, acknowledges that both teachers and pupils need to "relearn what it meant to be in physical education" (Dyson & Casey, 2016, p. 110). I suggest that this practice should be extended to teacher education and to other models. This acknowledgement has implications for teacher education. For example, PSTs with predominantly multi-activity, sport-based experiences of learning about and through innovative pedagogy (i.e., MBP) were faced with the task of rethinking PE approaches and what it means to be teachers and learners of PE. Therefore, beginning the first day of courses with a lesson zero provides an important opportunity to make sense of pedagogical models, MBP, and the overarching course approach (e.g., social constructivism). This principle shares similarities with Russell and Bullock's (2013) principle of teacher education practice that also values the first class as a "unique opportunity to challenge prior views of T&L by making powerful and unexpected pedagogical moves that engage teacher candidates and stimulate conversation about pedagogy" (p. 355). Data from this study support the notion that the first day (and I would suggest the first week) of class is a *unique* opportunity to introduce and begin facilitating the development of a shared understanding of course approach through PST engagement.

Using the first class to introduce a pedagogical model and rethink PE approaches was acknowledged by PSTs as supporting their learning in courses based in models. For

example, David offered the following advice for how I could have supported his and his peer's understandings of pedagogical models and MBP:

> I would say with TPSR, I don't know if you did, it was so long [ago], but with TGfU, you did a first class in the classroom, and you explained what it was, and you told us what you were going to do with it. TPSR I feel that you could have sat down and had an overview class, get everyone understanding, even before explaining to everyone what TPSR is. Going through MBP and tell them what it is and why you use it. Tell them how you can apply it, give them different ways, different environments that you can use it and then maybe you can start teaching TPSR itself. (Interview 3)

Hunter also identified a lesson zero as possibly supporting his understanding, suggesting that:

> Maybe learning about it a little bit more before learning through it, even if it's just one more lesson in the classroom. Because when we were in the very beginning of [Movement Concepts], I didn't have a great understanding of TPSR until I looked back. So, I feel that if we had that extra class, or if I had that understanding right away, I could start learning through it easier. (Interview 3)

Julie, who was only involved in the first course based in MBP pedagogy (i.e., Movement Concepts), did not have the opportunity to experience the Lesson Zero in the Territorial Games course but still identified this type of approach as a practice that might have supported her learning stating:

> I brought this up in the individual interview, but just to get it all on the table here. I suggested having one course in the classroom where we did go through it step by step. Or even half the class, because it was 3 hours long, to really, in the traditional learning environment having students [pupils] at the desks, teacher up front, which we're all accustomed to, and go through the step by step of the MBP I think would be beneficial. I know for me personally before going into the gymnasium [it would be beneficial to learn about MBP in the classroom] because it kind of divides it a little bit between the about and through. So, having a little bit more of the about knowledge before jumping into the through would help me. (Focus Group Interview)

With support from PST feedback throughout courses, I was able to make changes to my practice even before the research interviews. For example, I began to view the first class (and the first week of class) as a unique opportunity to support PSTs' understanding of course approach. Essentially, I instituted what Dyson and Casey (2016) have labelled a Lesson Zero even though I did not yet have the language to identify the practice. Now named, the practice of a Lesson Zero is one of my suggested principles of practice for implementing MBP.

7.1.8 Individual and Group Meetings Support Teacher Educators and PSTs in Crystallizing Understandings of a Models-Based Approach to Teacher Education and Teaching

Meeting individually with PSTs for the purpose of reviewing their professional progress is a practice that has a high cost in terms of time but pays rich dividends in the teacher educator's influence on how PSTs will teach (Russell & Bullock, 2013). I found this idea to ring true as I struggled to support PSTs in understanding MBP throughout the courses. For example, individual meetings in the form of interviews did take up a lot of time but also paid rich dividends in terms of observing PSTs crystallize their understandings of MBP.

Most PSTs identified the individual and group interviews as pivotal in deepening their understanding of MBP. As quoted in Chapter 5, David acknowledged that he didn't truly understand MBP until he had the opportunity to talk about this innovative practice, and solidify his understandings, during interviews (Interview 3). Amy reflected on how the interviews made her more confident to use pedagogical models explaining:

> If it wasn't for the interviews, I don't think I would've felt as confident to implement them [pedagogical models] into my lesson plans to go out into the schools. Through the interviews, I was able to get a better understanding, a better comfortability of each of them which allowed me [to say] "Oh, here's my opportunity to try it, let's see what I can do, let's see how it works." The interviews are making it a lot easier to flow and actually use an experience that I had. (Interview 3)

Similar sentiments were expressed by other PSTs. Brian indicated that the research interviews provided a beneficial opportunity to reflect on what he had learned in class and provided motivation to learn more about MBP on his own time (Interview 3). Elizabeth also identified the research interviews as reinforcing what she had been, and was currently, learning in class (Interview 3). Hunter stated that the research interviews prompted him to reflect on MBP in relation to his future practice (Interview 3). There was no doubt that the interview process was a major factor in solidifying PSTs' understanding of MBP pedagogy.

While research interviews supported PSTs in gaining deeper understandings of MBP and greater confidence in trying to implement pedagogical models during their internships, Gerald's comments highlight that careful consideration must be given to ways in which this practice might be implemented into courses stating:

> I think that some people doing the interview may not be comfortable coming up and saying, "ok, this is what I found negative, or this is what you have to improve." So, if there was some way instead of face to face interview that you could email. Well, even if you emailed me and I said well she's my Prof., and I know it was outlined when I was reading it [ethics consent] that it said there was no way that it would negatively affect your grade or positively affect your grade, it's a total anonymous thing; but if there was a way you could email some way of changing your email or do something to ask "What were the negative aspects [of MBP]," I think you would find a lot more [PSTs participating in the interviews]. (Interview 2)

Recognizing the high cost of time associated with using interviews and issues such as level of comfort with the teacher educator (identified by Gerald), PSTs provided the following alternatives:

- individual post-course wrap-ups between PSTs and the teacher educator
- end of semester group discussions
- end of course conversations that contributes to part of the assessment
- a mid-term formative interview
- team teaching using a pedagogical model in combination with an end of term interview for summative assessment purposes, and
- a more anonymous form of written "interview." (David, Gerald, Julie, Amy, Interview 3)

Interviews have long been used as a research tool. Based on data from this research, I assert that the concept of *interviews as pedagogical conversations about practice* are also valuable in informing PSTs' understanding of practice. Current and future practices of both teacher educators and PSTs can be informed by timely professional conversations. While there is a cost in terms of time, conversational interviews focused on the T&L of MBP pays dividends in terms of crystallizing understandings for both PSTs and teacher educators.

Chapter 7 Summary

The Society for Teaching and Learning in Higher Education (STLHE) (1996) identified nine ethical principles in university teaching. One of the ethical principles states that a pedagogically competent teacher educator "is aware of alternative instructional methods or strategies, and selects methods of instruction that, according to research evidence (including personal or self-reflective research), are effective in helping students [pupils] to achieve the course objectives" (STLHE, 1996). Further to this, failing to match intentions and actions is considered incongruent with ethical pedagogy (STHLE, 1996). Perspectives, approaches, and teaching practices (intentions and actions) must, therefore, be thoughtfully chosen and enacted. By synthesizing data from Chapters 5 and 6 into the principles of practice for implementing MBP that I have outlined in this chapter, I believe I am demonstrating both pedagogical competence and ethical teacher education practice. Specifically: I am aware of alternative instructional methods and strategies (i.e., a MBP approach versus a multi-activity approach); I selected methods and approaches in my use of MBP based on research (mine and others) in helping PSTs to achieve course objects in their pursuit of becoming educators in physical activity contexts; and I strove to more closely align my teaching beliefs (i.e., social constructivist) with my actions (e.g., student/PST-centred learning) through S-STEP inquiry. Moreover, I have shown how PSTs' voices and perspectives have been integral in shaping the understanding I have of myself as a teacher educator, and of the understanding I have of PSTs and their learning about MBP.

While the development of my principles of practice for implementing MBP in PETE has provided a deeper understanding of myself as a teacher educator and the development of my personal pedagogy of physical education teacher education, the results of this research

also have implications to the wider field of teacher education. For example, by developing and articulating my principles of practice, I provide a possible pedagogical framework (Loughran, 1997) for others considering the implementation of MBP in PETE which adds to the limited research in this area (i.e., Baker & Fletcher, 2017; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008). In addition, results of this research add to the research base generated by others who have shared their principles of practice (e.g., Berry, 2008; Bullough, 2002; Crowe & Berry, 2007; Fletcher, 2016; Korthagen et al., 2006; Loughran, 1997; Russell & Bullock, 2013).

In the following and final chapter, I bring together the main findings from this dissertation research, and highlight the ways in which this research has made significant contributions to my personal practice, the practice of other teacher educators, and the research literature in physical education and in teacher education. I also offer recommendations for future research based on the outcomes of this dissertation.

Chapter 8 - Conclusion and Recommendations

The purpose of this research was to examine the development and articulation of a personal pedagogy of physical education teacher education using MBP. In addressing the purpose of the research, I investigated my understanding of teaching about teaching, teaching about learning, and learning about learning (Loughran, 2006). Through careful analysis of both my experiences and those of PSTs in four PETE courses, I developed eight principles of practice for using MBP in PETE that supported the development and articulation of my personal pedagogy of physical education teacher education. In this concluding chapter, I discuss how the analysis of results derived from examining four research questions not only informs my practice but also contributes to the literature on teacher education practice. In the first section, I provide a summary of main findings and discuss contributions to research and practice. In section two, I focus on implications and recommendations for MBP, PETE practice, and Self-Study of Teacher Education Practice (STEP). I then provide limitations in section three, followed by a conclusion to this chapter and dissertation research.

8.1 Main Findings and Contributions

From the overarching purpose restated in the introduction of this chapter, the research questions identified at the beginning of the dissertation were:

- What did I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding my experiences of teaching and learning as a teacher educator?
- What did I learn about implementing innovative practice in the form of Models-Based Practice (MBP) in PETE by analyzing and understanding pre-service teachers' experiences of their learning and my teaching?

- How did the examination of my implementation of MBP in PETE inform the development and articulation of my pedagogy of physical education teacher education?

- How did the development and articulation of my pedagogy of physical education teacher education using MBP contribute to a broader understanding of teacher education practice?

8.1.1 Summary of Main Findings

Taken together, my research focused on what I learned about teacher education practice as I implemented MBP in PETE by analyzing and understanding both my experiences of T&L and those of PSTs whom I taught in four PETE courses. I found that:

- Implementing MBP in PETE is complex and fraught with challenges. Themes that highlight this include the challenges of aligning teacher education beliefs and practice, having PSTs simultaneously learn about and through unfamiliar pedagogy (such as MBP) and making unfamiliar practices familiar to PSTs.

- Developing teacher education practice is a multi-layered and problematic undertaking. In addition to challenges aligning beliefs and practice, developing teacher education practices that support PSTs in assuming a future professional's perspective, and unpacking my practice with PSTs in ways that make implicit teaching beliefs and actions explicit, are themes that highlight the multi-faceted and problematic nature of being and becoming a teacher educator.

- In analyzing MBP implementation in PETE, and teacher education practice in general, PSTs' voices are essential in developing deeper and richer understandings.

- The development and articulation of principles of practice and a pedagogy of teacher education have fundamental implications for both the teacher educator-researcher engaging in S-STEP but also for other teacher educators.

8.1.2 Research-based Contributions on the Implementation of Models-Based Practice in Physical Education Teacher Education

There is limited research on MBP implementation in PETE. For example, Gurvitch, Metzler, and Lund's (2008) monograph presented the results of the systematic implementation of MBP throughout a PETE program by a group of experienced teacher educators. One main finding of that S-STEP research was that PETE faculty could act as powerful change agents by shaping the use of innovative approaches, such as MBP, in the field of PE. Similarly, Fletcher and Casey (2014) used S-STEP to examine the challenges of MBP implementation but in two distinct PETE programs in different countries, while both authors were novice teacher educators. One of their main findings was that while challenges implementing MBP might be different between teacher educators (e.g., Fletcher's inexperience with MBP versus Casey's extensive experience implementing MBP in K-12 contexts), collaborative S-STEP can support teacher educators in rigorously examining the complexities of teaching about teaching, thereby contributing to the development of deeper understanding and knowledge of teacher education practice.

Results from my S-STEP research add another layer to the limited research on MBP implementation (i.e., practice) in PETE. This is important given that MBP has been advocated for as a radical approach to reform in PE; yet there are few representations of MBP from teaching or teacher education practitioners (e.g., Casey & MacPhail, 2018; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008). For example, unlike previous MBP in PETE research, my research was conducted over several years, and involved a deep look at MBP implementation in PETE by one teacher educator who was systematically implementing MBP in an established PETE program. Moreover, my research considered

both the views of the teacher educator and those of PSTs. To this end, it may be suggested that my research offers a more comprehensive view of the many influential factors that contribute to the challenges faced by teacher educators in implementing MBP. For example, Gurvitch, Metzler, and Lund (2008) did not consider the voices of teacher educators in their research, while Fletcher and Casey (2014) did not consider those of PSTs in theirs. Opening my use of MBP in PETE to the scrutiny of PSTs positioned PST experience and voice as fundamental to the development of my principles of practice for teaching using MBP and my personal pedagogy of physical education teacher education. In turn, PSTs' voices generated unique insights about implementing MBP and other innovations in PETE that have implications for individual teacher educators and PETE programs (e.g., Principle (g) a lesson zero as providing a unique opportunity to make sense of MBP, and (h) the role of individual and group meetings in crystallizing understandings of MBP).

Analyzing both PSTs' and my experiences and understandings of implementing MBP in PETE also adds to the knowledge base of MBP implementation in PETE, particularly through the development and articulation of *principles of practice* (see Chapter 7 and following section of this chapter). While principles of teacher education practice have been developed by others (e.g., Berry, 2008; Crowe & Berry, 2007; Fletcher, 2016; Loughran, 2002; Loughran & Russell, 1997; Russell & Bullock, 2013), my principles offer a unique contribution as they represent possibilities for others interested in implementing MBP as part of their teacher education practice. For instance, principles like the importance of aligning and sharing teaching actions and beliefs, providing opportunities for PSTs to experience innovative teaching practices they are learning about but also to consider these experiences from the viewpoint of teacher, and developing relationships as the foundation of

practice and learning are evidenced across many teacher educators' principles, including mine (e.g., Crowe & Berry, 2007; Fletcher, 2016; Korthagen, Loughran, & Russell, 2006; Loughran, 1997, 2002; Russell & Bullock, 2013). However, because the development of my principles of practice had a unique focus on MBP, there are some principles that are not represented across those of others but do have connections to MBP research as well as education research more broadly. For instance, one of my principles using MBP in PETE borrows from Tinning's (2002) suggestion of a modest critical approach to innovative practice, which I have applied to MBP (Principle (b)). In addition, some of my other principles have resulted primarily from interactions with PSTs and their experiences of learning about and through MBP in this research. While the development of my principles of practice for implementing MBP were grounded in a teacher education context and may be viewed as wholly unique to that context, they may also have applications for the broader field of education. For example, providing PSTs with diverse experiences of learning about and through MBP (Principle (d)), examining alternatives to MBP (Principle (e)), and extending MBP to multiple contexts (Principle (f)) might also present possibilities for applications to broader contexts of teacher education, such as the implementation of other innovative practices. As such, my principles of practice have applications for both MBP in PETE specifically and to the broader context of teacher education, which will be elaborated on further in following sections of this chapter.

Findings from my research also raise important questions about the place of PSTs as critical contributors to teacher educator research and practice. Challenging the status quo of approaches to teaching PE by using innovative practices such as MBP requires a lot of thought and critical analysis from the teacher educator(s) implementing the innovation.

Teacher educators would, therefore, do well to engage in collaborative study of their practices and experiences of implementing MBP. Such research does exist, for example, in collaborative S-STEP research on the implementation of MBP in PETE (see Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008). However, in previous MBP research, it may be claimed that PSTs' voices have not been valued to the level of critical friend or critical colleague to the extent that they were in my research—that of critical contributor. While PSTs' experiences about and through MBP did add trustworthiness to the development of all of my principles of practice, it was through the collaboration with PSTs that I developed specific principles of practice in PETE that would likely have laid beneath the surface without analyzing the emic perspective of PSTs (see Chapter 6). For instance, it was PSTs' experiences that brought to light the extent to which individual and group meetings supported PSTs in crystallizing their understandings of a models-based approach to PE (Principle (h)).

Analyzing and understanding how I implemented MBP in PETE supported the development of principles of practice and contributed to the development and articulation of my personal pedagogy of physical education teacher education practice. While examining my practice has been important for my personal and professional development as a teacher educator, it also has applications for others who wish to implement MBP in other contexts. Findings from this research, therefore, offers an original and significant contribution to the limited research on the implementation of MBP in PETE in three ways: (a) it provides a unique perspective from a K-12 teacher transitioning to teacher educator taking a risk implementing innovative practice in a well-established faculty and long-standing program; (b) it aligns with others' principles of practice in PETE but also provides unique principles

of practice explicit to the implementation of MBP in PETE; (c) it situates PSTs as critical contributors in the development of teacher educator practice. In addition, this research also contributes to the wider field of teacher education through the development and sharing of specific principles of practice implementing MBP in PETE as well as a broader pedagogy of physical education teacher education.

8.1.2.1 Developing Principles of Practice Using MBP in PETE: Facing Challenges Transitioning from Teacher to Teacher Educator

Transitioning from teacher to teacher educator is important to document because while research interest is increasing (e.g., Austin, 2002; Berry, 2016; Casey & Fletcher, 2012, 2017; Cochran-Smith, 2003; Fletcher & Casey, 2014, 2016; Loughran, 2006, 2011; Murray & Male, 2005; Richards & Fletcher, 2020; Richards & Levesque-Bristol, 2016; Richards & Ressler, 2016, 2017; Smith, 2011; Thorton & Nardi, 1975; Tierney & Bensimon, 1996; Williams et al., 2012; Zeichner, 2005) little is known about how those transitioning into teacher education in well-established faculties learn teaching about teaching, teaching about learning, and learning about learning (Loughran, 2006) using innovative practices. Some teacher educators who have navigated this *second wave* (Pike & Fletcher, 2014) of secondary professional socialization (Russell et al., 2016) suggest that teacher educators may benefit from: engaging in critical friendships with colleagues within the same department and university as well as at other universities; community-engaged scholarship; findings one's home in a community of practice; and engaging in S-STEP scholarship (Casey & Fletcher, 2012, 2017; Cutforth, 2013; Fletcher & Casey, 2014; MacPhail, 2014; Ovens & Fletcher, 2014; Richards & Fletcher, 2020; Richards & Ressler, 2016, 2017; Russell et al.,

2016). In fact, S-STEP methodology has been used by teacher educators from many disciplines (e.g., Berry, 2008; Brandenburg, 2008; Bullock & Christou, 2009; Bullock & Ritter, 2011; Loughran, 2005; see Loughran, Hamilton, LaBoskey, & Russell, 2004; Loughran & Russell, 2002; Samaras, 2002), including PE (e.g., Baker, 2015; Fletcher, 2016; see Ovens & Fletcher, 2014; Fletcher & Casey, 2014; Fletcher et al., 2016; Hordvik et al., 2017; McEvoy, 2019; Richards & Fletcher, 2020; Richards & Ressler, 2016, 2017; Tannehill, 2016) to research their practice.

Analysis of the data from my S-STEP research showed that, like others, (e.g., Casey & Fletcher, 2012; Izadinia, 2014; McEvoy et al., 2015; Murray, 2016; Pike & Fletcher, 2014; Tannehill, 2016), I experienced challenges as I transitioned from the role of K-12 teacher to that of teacher educator. One challenge was the acknowledgement that contextual differences between school and university teaching required a shift in the purposes of my teaching. Previously, my main focus was to teach pupils PE content, but in moving to higher education, my main purpose was now teaching prospective teachers about the whys and hows of learning to teach (Loughran, 2006). This involved the re-consideration of PE content, pedagogy, and learners. In coming to see the divergence in my purposes for teaching teachers, I began to question how I could engage in becoming a teacher educator who was better positioned to support PSTs in becoming teachers themselves.

8.1.2.1.1 Aligning My Teaching Actions and Beliefs

Examining my practice through an S-STEP approach (see LaBoskey, 2004 and Chapter 4) brought with it the realization that *my articulated beliefs about learning did not always align with my teaching actions*. For example, I espoused a social constructivist

perspective to learning in syllabi and learning plans. I made pedagogical decisions based on alignment with social constructivist ideas and beliefs, such as the selection and use of several specific pedagogical models that were chosen as part of my MBP approach. However, data analysis showed that I struggled to enact a social constructivist philosophy to learning in the PETE courses beyond what I said or wrote. In a nutshell, my rhetoric about teaching did not match the realities of my teaching. Quite often, my teaching actions aligned more with a direct approach, which was parallel to my experiences as a learner in schools and university.

As I considered this and continued analyzing my pedagogical practices using MBP in PETE, I began to reconsider the professional knowledge and skills I had acquired as a successful K-12 educator in relation to the markedly different context of teaching teachers (Berry, 2008; Casey & Fletcher, 2012; Fletcher & Casey, 2014; Korthagen & Russell, 1995; Korthagen et al., 2005; Koster et al., 1998; Loughran, 2006; Swennen & Van der Klink, 2008). For example, some of my teaching actions that stood as the antithesis of a social constructivist perspective to learning included equating teaching with telling and teaching with planning (Loughran, 2006). Prior to realizing the misalignment in my beliefs and actions, several of my strategies for teaching teachers may have yielded outcomes that stood in contrast to what I hoped PSTs learned about teaching. For instance, while I had intended to share my decision-making process as a way to make my tacit teaching decisions more explicit (Loughran, 2006) to both myself and PSTs, what I may have actually succeeded in doing was covertly send the message that PSTs should teach the way I teach.

Further, rather than involving PSTs in co-constructing an understanding of T&L, I had fallen into the trap of treating them as receptacles (Freire, 1970) who would learn to be

teachers from me telling them my tips and tricks about teaching rather than engaging them in their own rigorous inquiries into the complexities of teaching decisions and practices (Loughran, 2005). In addition, while I spoke about the importance of being responsive to pupils, and thus the need to view learning plans as guides rather than sacred texts, I modelled the polar opposite. Data analysis demonstrated that I spent hours preparing for class so that every last detail was accounted for; when it wasn't, and I felt I had to change the plan (in response to PSTs' needs, concerns, and interests at that particular time), or when we did not complete what I wanted PSTs to learn, I equated this to an unsuccessful teaching/learning experience for PSTs and me.

Based on the analysis of my data and those of PSTs (and the outcomes just described), I was led to concentrate on better aligning my social constructivist beliefs about learning with my teaching actions. This analysis and concerted effort at alignment contributed to the development of several principles of practice for using MBP in PETE (see Chapter 7). For example, I outlined the need to focus on developing contextually appropriate social constructivist pedagogical practices that supported PSTs in learning about and through MBP to PETE (Principle (a)). As a result, I suggested adopting a modest approach to innovative practice in PETE (e.g., MBP) in order to create a safe environment where knowledge can be co-constructed (Principle (b)). I also highlighted the importance of teacher educators sharing the thoughts that underpin their implicit teaching practices in order to deepen understandings of MBP (Principle (c)) in teaching and/or teacher education but in ways that make those thoughts subject to debate. That is, teacher educators' decisions need to be critiqued by teacher educators and PSTs rather than taken unquestioningly as the 'right decision.' This means framing teacher educators' decisions in terms of questions rather than

statements. While these are three of my principles of practice using MBP in PETE, they also form the basis of my broader personal pedagogy of physical education teacher education, which has, as its foundation, the consistent analysis of alignment between my teaching actions with my beliefs about learning as socially constructed; using a modest approach to support PSTs in reconsidering PE practice; and, making the implicit decision-making process of teaching explicit in order to support PSTs in developing their own pedagogical decision-making skills.

8.1.2.1.2 Recognizing the Influence of my socialization

Another common struggle I experienced as I strove to become a teacher educator was the absence of a mentored induction phase and the resulting necessity for me to navigate the transition on my own (see Berry, 2016; Fletcher & Casey, 2016; Kelchtermans et al., 2018; Richards & Ressler, 2016). I was highly influenced by my perception of PSTs' expectations as well as those of the institution. As a former PST in the program within which I was now teaching, and in the absence of induction as a teacher educator, my perceptions and expectations of (especially) practical courses at UCR remained founded in my experiences as a PST in those courses. Essentially, my *secondary professional and organizational socialization* into the world of teacher education (Richards & Ressler, 2016, 2017; Russell et al., 2016) was highly based in my previous experiences as a PST 15 years before, and was actually preserving the status quo in relation to T&L in PE (Cazers & Curtner-Smith, 2013; Cutforth, 2013; Casey & Fletcher, 2012, 2017; Fletcher & Casey, 2014, 2016; Richards & Fletcher, 2020; Richards & Ressler, 2016, 2017), rather than supporting me in implementing innovative T&L. For instance, I felt pressure (real or imagined) to ensure that practical

courses had a high percentage of time for PSTs to participate in vigorous physical activity, primarily because that was my experience as a PST in practical courses at UCR. However, through focused investigation of my teacher education practice in relation to teacher education literature, my insecurities about PSTs wanting (and UCR expecting) practical PETE courses to consist largely of vigorous activity waned.

My feelings of inadequacy and self-doubt became replaced with new understandings. For instance, I became more determined to prioritize the cognitive domain in teaching about teaching, teaching about learning, and learning about learning in PE (Loughran, 2006). Examining my practice was supporting me in becoming a more competent teacher of teachers contributing to an increased confidence in describing myself as a teacher educator, in essence, supporting the development of my identity as a teacher of teachers and researcher of, and within, teacher education.

Identifying and facing challenges such as the lack of induction also supported a reconsideration of my teaching practices. These reconsiderations contributed to the development of my principles of practice using MBP in PETE and my personal pedagogy of physical education teacher education. I began to understand and internalize not only why it was important to provide opportunities for beginning teachers to learn both about and through innovative practice, but also came to improve in my understanding of how I went about teaching teachers. Developing these understandings through data analysis was instrumental in forming another of my principles of practice: that providing opportunities for beginning teachers to learn both about and through a models-based approach provides them with unique insights into using MBP as a pedagogical approach in teaching and teacher education (Principle (d)).

Identifying and facing challenges associated with my second wave of socialization as a teacher educator (Pike & Fletcher, 2014) brought with it the realization that PSTs were likely facing challenges associated with their socialization (e.g., acculturation, apprenticeship of observation, and professional socialization, see Chapter 2). Results from my research lead me to suggest that the implementation of MBP in PETE should be accompanied by the examination of pedagogies that stand in contrast to MBP (Principle (e)), thereby demonstrating that there is no 'one best way' to teach PE. Providing opportunities to consider multiple pedagogies involves PSTs in practicing their pedagogical decision-making as future teachers. This may support PSTs in facing challenges associated with their ongoing occupational socialization (such as a perceived pressure to teach PE in the way it has always been taught and/or pressure to bring innovative pedagogy to existing programs).

8.1.2.1.3 Incorporating an Interdisciplinary Perspective using MBP in PETE

Considering the needs of PSTs from an interdisciplinary perspective also yielded some unique insights and principles of practice not previously reported in MBP in PETE research. For instance, approaching this research from perspectives brought by the fields of PE, education, and recreation brought with it the realization that PSTs should be provided with opportunities to gain understandings of MBP in PE contexts as well as other physical activity contexts. This pedagogical decision was based on the widespread practice of PE teachers often being involved in non-curricular physical activity contexts (e.g., intramurals, after-school sport) and the recognition that some PSTs might ultimately choose careers in fields such as recreation and sport. Acknowledging the diversity of PSTs' future possibilities, I felt a professional responsibility to provide opportunities for PSTs to make

meaningful connections between MBP and physical activity contexts beyond PE. This prompted me to provide opportunities for PSTs to focus on the implementation of TGfU and CL in community-based physical activity contexts (e.g., summer camp program leader and sport coach) as the basis for the Territorial Games course. This experience was included with the intention of extending PSTs' understanding of MBP as an approach that also fits into the broader context of physical activity (e.g., recreation, extra-curricular sports, and intramurals) (Principle (f)).

8.1.2.1.4 Acknowledging PSTs as Uniquely Placed to Provide an Insider's Perspective

In further considering not only my experiences learning about and through MBP in PETE, but those of PSTs as partners in the experience, *PSTs' voices* (e.g., exit slips, anonymous feedback, interviews) *provided a foundation for* the development of my last two *principles of practice*. Data clearly signalled the need for a well-designed introduction and conclusion to courses that focused on the what, why, and how of MBP (see Chapter 5). For example, in trying to come to terms with what supported their understandings of MBP, most PSTs involved in this research indicated that the first few classes of a course and the post-course interviews were instrumental in clarifying and solidifying their understandings. As a result, one of my principles of practice identifies the first lesson/first few lessons as unique opportunities to make sense of MBP (Principle (g)). As one way to implement this principle, I recommend that teacher educators use a *Lesson Zero* (Dyson & Casey, 2016) as the first lesson where a pedagogical model is introduced in part through the reconsideration of PE pedagogy and what it means to be someone learning to teach PE. PSTs also indicated being involved in the interview process of this research as uniquely supporting the depth of their

understandings of MBP. Interviews also heightened my awareness of what PSTs were understanding (and misunderstanding). These realizations are directly reflected in Principle (h): recognizing individual and group meetings as supporting teacher educators and PSTs in crystallizing understandings of a models-based approach to teacher education and teaching. As a result, I recommend that individual and group meetings be included as part of MBP implementation in PETE, perhaps in the middle, and/or at the conclusion of courses.

An S-STEP approach to researching my implementation of MBP in PETE supported me in identifying incongruencies in my teaching beliefs. While this was an important first step in developing as a teacher educator, facing these challenges has been the major contributor to the development and articulation of my principles of practice using MBP in PETE and my personal pedagogy of physical education teacher education (see Chapter 7). Similarly, ways in which my beliefs and actions aligned have also contributed to the development and articulation of principles of practice using MBP in PETE and my pedagogy of physical education teacher education, both of which ultimately impact the ongoing construction and reconstruction of my identity as a teacher educator.

8.1.2.2 My Pedagogy of Physical Education Teacher Education

As summarized in the last section, analyzing and understanding my practice contributed to the development of eight principles of practice implementing MBP in PETE. In addition, through using S-STEP methodology, I also found direction in my teacher education practice as reflected in the formation of a personal pedagogy of physical education teacher education. The process of forming a pedagogy of teacher education is important because of the unique and complex nature of teaching teachers (see Chapters 2 & 3; Bullock,

2012; Casey & Fletcher, 2012; Fletcher, 2016; Loughran, 2006, 2014a; Mansfield & Loughran, 2018; Ritter, 2007; & Williams et al., 2012). Examining my teacher education practice as I implemented MBP has supported me in: (a) identifying how to improve my teacher education practice; (b) facing the challenges transitioning into teacher education and the complexities of teacher education; and (c) developing self-confidence as a teacher educator and researcher (i.e., developing a new teaching identity). Sharing my principles of practice for implementing MBP in PETE and my personal pedagogy of physical education teacher education might, therefore, represent possibilities for other teacher educators developing pedagogies of teacher education. For example, my principles of practice have contributed to the development of my personal pedagogy of physical education teacher education based in four general practices that could be applied both to PETE and to other content areas in teacher education: (a) community building (Kosnik & Beck, 2009, 2011), (b) making the unfamiliar familiar (adapted from Gordon, 1961, making the strange familiar), (c) supporting PSTs in moving to the other side of the desk (Lortie, 1975), and (d) making the implicit explicit (see Chapters 5 & 6), each of which is discussed in the following sections.

8.1.2.2.1 Community Building

Research demonstrates the emotional, social, and cognitive benefits of fostering a learning space of comfort, belonging, and attachment where personal connections can be made (i.e., community building) (Azzarito & Ennis, 2003; Battistich et al., 1997; Durlak et al., 2011; Fletcher & Baker, 2015; Jennings & Greenberg, 2009; LePage et al., 2005; Spilt et al., 2011; Furrer & Skinner, 2003; Watson & Battistich, 2006). In fact, Kosnik and Beck's

(2011) longitudinal study resulted in the inclusion of community building as one of the seven priorities in teacher education practice. In addition to my previous research (Baker, 2015; Fletcher & Baker, 2015) where it was shown that community building supported PSTs' development as future PE teachers, this research demonstrated that building community also contributed to PSTs' understandings of MBP.

Data analysis from my research demonstrated a clear relationship between community building and some pedagogical models that explicitly attend to the affective domain, such as TPSR and CL (Dyson, 2001; Dyson, 2019b; Hellison, 2011; Hodge & Danish, 1999; Siedentop, 1990; Smith et al., 1997; Walsh et al., 2012). In other words, community building in PETE can be supported through the implementation of models that prioritize the affective domain, such as CL and TPSR. PSTs learning about and through pedagogical models like these can help teacher educators foster low-risk environments that encourage co-construction of knowledge (see Chapters 5 & 6). Data analysis from this research also demonstrated that fostering learning environments such as these were valued by PSTs in terms of supporting their understanding of MBP, in part by making this unfamiliar pedagogy seem more familiar (Pedagogy of Physical Education Teacher Education point (b); see Chapter 6). Community building was also valued by PSTs as supporting their desire (e.g., to attend class) and ability to engage with innovative pedagogy (i.e., knowing that they would be supported by both their peers and me in developing understandings), which also has implications for the broader field of teacher education (see Chapter 6).

Findings such as these have applications to teacher education practice when introducing innovative practices that are often unfamiliar to PSTs, such as MBP. For

instance, as detailed in Chapters 5 and 6, PSTs indicated that the focus on community building supported their learning in many ways, not least of which was in developing their understanding of MBP as an innovative approach to teaching PE.

8.1.2.2.2 Making the Unfamiliar Familiar

Moy et al. (2016) suggest that opportunities should be provided to PSTs to both personally experience and observe successful implementation of alternative pedagogies in an attempt to support their receptiveness to such pedagogies. However, teacher education literature also suggests that PSTs have a tendency to seek the familiar practices they experienced as pupils (Lawson, 1983a; Lortie, 1975; Sirna et al., 2010), and that care must be taken in challenging PSTs' prior experiences with PE. If challenging their prior experiences in ways that seem confrontational or overly critical of personal beliefs, PSTs can wholly reject the ideas trying to be encouraged (Cameron, 2014). Data analysis supported the notion that teacher educators should (or may benefit from) an approach where PSTs are consistently invited to extend their ideas, views, and perspectives (Russell & Bullock, 2013) —one that forms emotional and intellectual connections to innovation (i.e., a modest approach) (Tinning, 2002) —rather than criticizing and finding fault with PSTs' current ideologies. For example, PSTs identified the consistency and diversity with which I integrated opportunities for learning both about and through MBP as instrumental in supporting their understanding. Findings such as these contributed to the development of principles (c) through (h), all of which contribute to the general pedagogical idea of making the strange familiar (Gordon, 1961). For instance, opportunities to learn both about and through a models-based approach (Principle (d)), examining alternatives to MBP (Principle

(e)), and extending MBP to multiple contexts (Principle (f)) provide unique insights into the possibilities of MBP pedagogy.

8.1.2.2.3 Supporting PSTs in Moving to the "Other Side of the Desk"

Encouraging PSTs to step out of the shoes of the learner and into the shoes of the professional ran through many of my principles of practice as well. However, it can most easily be recognized as contributing to Principle (c) (Teacher educators sharing the thoughts that underpin their implicit teaching practices supports PSTs' and teacher educators' understandings of MBP in teaching and/or teacher education). For instance, PSTs valued the consistency with which I asked them to assume the role of pedagogical decision-maker (i.e., teacher, teacher educator, educator) and to unpack the reasons behind pedagogical decisions they were part of (as learner or as peer teacher, for example) in order to support their understanding of MBP (see Chapter 6). PSTs' willingness to implement models in various placement or experiential opportunities (e.g. their school placements, recreation leader programs, or in work settings), and/or their intent to use it in their future practice as educators may be partly attributed to the confidence gained through opportunities to practice pedagogical decision-making.

8.1.2.2.4 Making Tacit Knowledge of Teaching Explicit

As discussed in the previous section, I often struggled to unpack and articulate my practice with PSTs, which resulted in me often equating teaching with telling and planning, and offering teaching strategies as tips and tricks with little invitation to question the reasons behind my decisions (see Chapter 5). Taken together, these strategies represented a transmissive approach to learning, which stands in contrast to social constructivist learning

theory. As I focused on better adhering to a social constructivist approach to learning, I began to learn how to unpack my practice with PSTs in ways that fostered debates rather than resulted in the unquestioned replication or mimicry of my ideas and beliefs. Providing a space for PSTs to use their voice and perspective in authentic ways resulted in their providing often sage advice on how to unpack my practice in ways that supported rather than inhibited their understanding (see Chapters 5 & 6). In addition to supporting the development of Principle (c), which focused on the sharing of implicit teaching actions in order to support deeper understandings, PSTs' voices figured prominently in the formation of other principles of practice implementing MBP in PETE. For example, I recommend using the first lesson as a unique opportunity to make sense of MBP (i.e., a lesson zero, Dyson & Casey, 2016) (Principle (g)), and also highlight the importance of using group meetings to crystallize PSTs' understandings of MBP (Principle (h)). PSTs identified both of these practices as supporting their understanding of MBP as an innovative approach to PE. Valuing PSTs experiences as uniquely informing my practice contributed to the development of my principles of practice using MBP in PETE, but also the development of a broader personal pedagogy such as making tacit knowledge of teaching explicit. Understandings gained from examining the implementation of MBP in PETE, consequently, also has applications to teacher education practice in a general sense.

Through a focused examination and analysis of my teacher education practice, I developed eight principles of practice for implementing MBP in PETE. These principles align with and contribute to the development of my personal pedagogy of physical education teacher education, which includes but also goes beyond implementing MBP. While understanding my practice is important to me personally as a teacher educator who is

committed to supporting PSTs in successfully transitioning to their new professional roles, it is also important for the results of S-STEP research to have broader meaning for the larger education community (LaBoskey, 2004). To this end, in the next section, I summarize the main contributions of this research by grounding the findings in the teacher education literature.

8.2 Implications and Recommendations for Future Research

At the beginning of this dissertation I argued that if teacher educators are to live up to the expectation of being the "linchpins" of any type of educational reform effort (Cochran-Smith, 2003, p. 1), it is imperative that teacher educator preparation be given more attention in teacher education research and practice (European Commission, 2013; Goodwin & Kosnik, 2013). The results of this research attend to this issue directly; in using S-STEP, I was able to examine my implementation of MBP in PETE and simultaneously develop of my teacher education practice and develop personally and professionally as a teacher educator. However, while the results of this research have implications for my practice, they also carry consequences for others. In particular, findings from this research may be of interest to teacher educators, researchers, and K-12 educators. Teacher educators interested in implementing MBP in PETE may learn from the challenges and struggles I faced to do the same. In addition, some of the principles of practice I developed by synthesizing the findings of this research may support other teacher educators with their implementation of MBP in PETE. My personal pedagogy of physical education teacher education may support those transitioning from K-12 to post-secondary. K-12 educators (and teacher educators) searching for innovative approaches to PE may also benefit from the findings of this research through

reading my principles of practice, which may have applications for their T&L contexts. These implications may also serve to inform future research.

This research is significant because it adds to the literature on PETE practice by identifying key areas of challenge and success implementing MBP in PETE. The results I have presented suggest implementing MBP in PETE is fraught with challenges for teacher educators. However, based on the results of this research I also suggest that critical examination of one's own experiences implementing MBP in PETE can support the implementation of MBP by other teacher educators, for example, through the development of shared principles of practice (i.e., principles that are common across those developed by several teacher educators). This is important because implementing innovative pedagogy in teacher education can be challenging for both teacher educators (see Chapter 5) and PSTs (see Chapter 6), while also carrying the potential to instill change in PSTs' beliefs and intentions for future practice (see Chapters 5-7). Developing and sharing principles of practice, and a pedagogy of physical education teacher education stemming from these principles, provides guidance for implementing MBP in PETE in ways that begin to address MBP as a possible sustainable future for PE (Kirk, 2010) or as a white elephant (Casey, 2014). However, we still know and understand little about the potential for MBP to move PE forward. As previously mentioned, to date, there are only a few studies on MBP implementation in PETE (Baker & Fletcher, 2017; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008), and one in a K-12 context (Casey & MacPhail, 2018). Therefore, while results from this research do add to what we know and understand about MBP implementation in PETE, it is recommended that continued examination of MBP

implementation must be undertaken in multiple contexts if a shift toward MBP is ever to become a reality.

In addition to supporting teacher educators' implementation of MBP, findings of this research also demonstrated PSTs' intentions to implement MBP. This is important to teacher education practice. For instance, PSTs identified ways they were supported learning about and through MBP, which contributed to their intent to implement MBP in their future practice (see Chapter 6) and the subsequent development of eight principles of practice for my implementation of MBP in PETE. These principles may guide other teacher educators in supporting PSTs' intentions to implement MBP. As well, although this research does not offer a conclusive answer to the barrier of the wash-out effect (Zeichner & Tabachnick, 1981) that will still likely be experienced by PSTs, it does signal a need for a collaborative effort on the part of PETE faculties and cooperating teachers in sustaining the implementation of innovative practice by novice teachers. In addition, the principles of practice that I generated, such as a modest approach to innovation (Principle (b)) that intends to develop PSTs' intellectualized and emotional commitment to MBP, might also support future teachers in sustaining the implementation of MBP. While this may be a promising beginning, ultimately, there is a need to extend collaborations and engage in longitudinal studies in the revisioning of PE. To this point, Fletcher, Beckey, Larsson, and MacPhail (2020) have recently suggested the need to better align the work of teachers and teacher educators through a sustained and integrated community of practice rather than continue with an ineffective siloed approach that separates teachers from teacher educators and acts as a barrier to spreading innovation.

As educators, the work of K-12 teachers and teacher educators share similarities. For example, both teachers and teacher educators have personal perspectives, ideas, and beliefs about T&L. These may then form their visions, philosophies, principles of practice, and pedagogies. Thus, while principles of practice for implementing MBP in PETE have clear implications for teacher educators and PSTs, they may also have meaning for K-12 educators. Educators at all levels may identify with some of the struggles and challenges I experienced implementing innovative practice (see Chapter 5), or PSTs experienced learning about and through MBP (see Chapter 6). Some of the resulting principles of practice may, therefore, ring true for K-12 educators. For instance, taking a modest approach to innovation (Principle (b)) is a principle that can be applied to both teacher education and K-12 contexts. In addition, the concept of a *Lesson Zero*, prominent in Principle (g) of my teacher education practice implementing MBP in PETE, originated in K-12 practice (see Casey & Dyson, 2016). Results such as these offer further support for the call to reconceptualize organizational boundaries in ways that value and privilege the needs and skills of K-12 teachers alongside those of teacher educators (Fletcher et al., 2020).

The findings also have implications for *S-STEP methodology*. This research was framed by an examination of the self-in-practice with my voice and experiences foregrounded in the research questions and analysis. However, my research has also shown the crucial role of interaction in any S-STEP work. For instance, PSTs' voices contributed to the development of all eight principles of practice implementing MBP in PETE but were the primary impetus for the development of some principles such as (f) meeting PSTs' need by extending MBP to multiple contexts as not all PSTs will become teachers and (h) crystallizing understandings through individual and group meetings. In addition, interaction

with the literature supported the development of principles such as (b) a modest approach supporting innovative practice and (g) a lesson zero.

Interactions with outsiders' perspectives also contributed to my examination of self-in-practice. For example, collegial observations of my MBP implementation-in-action and discussions about my teaching practice figured prominently in the development of practices such as enacting social constructivist theories and learning (Principle (a)), making implicit teaching decision and actions explicit (Principle (c)), and simultaneously learning about and through MBP (Principle (d)). This means that while S-STEP research needs to be focused on the self, purposeful consideration of other voices is central to deepening understandings of practice. In addition to collaborative S-STEP research that includes critical colleagues, it is recommended that teacher educator-researchers consider collaborations that value PSTs' voices as critical in strengthening our interpretations of teacher education practice.

The implications for kindergarten to post-secondary teaching practice may also inform future research. Researchers interested in examining MBP as a possible sustainable future for PE (in teacher education and K-12 contexts); the transition to teacher educator, and; S-STEP as a research methodology, may also look to findings of this research to inform future research. For example, MBP has been suggested as a pedagogy that has the potential to breathe new life into overused, stagnant, and out of date PE approaches (Casey, 2014; Gurvitch, Metzler, & Lund, 2008; Kirk, 2010; Metzler, 2017). However, with little research to guide teachers or teacher educators in the implementation of MBP (see Baker & Fletcher, 2017; Casey & MacPhail, 2018; Fletcher & Casey, 2014; Gurvitch, Metzler, & Lund, 2008; Metzler, 2017), the hypothesized potential of MBP could soon be lost. While my eight principles of practice offer some direction for MBP implementation in PETE, further

research and implementation is necessary to more fully understand the place of MBP in PE. Similarly, while the examination of my teacher education practice provides findings that relate to both teacher educator socialization (see Chapter 5) and S-STEP in PETE (see Chapter 7), these two burgeoning lines of inquiry require continued examination (Ovens & Fletcher, 2014; Richards, Pennington, & Sinelnikov, 2019).

8.3 Limitations

In addition to the aforementioned contributions, implications, and recommendations, it is important to identify the limitations of this research. Limitations of this research that could be addressed in the future include the narrow focus on only one phase of socialization (that being professional socialization) and challenges with fidelity of model implementation. Another limitation, questions about the transferability of some results given the uniqueness of the results and contextual factors, is addressed by implementing characteristics of quality S-STEP.

The results of this research are limited to only the professional *socialization* stage of PSTs (i.e., PETE). This limits what we know and understand about MBP implementation to only PETE. If MBP is ever to move beyond innovation, we need to understand ways in which the implementation of MBP in PETE can contribute to implementation in school contexts. Without research that extends PSTs implementation beyond PETE, we will have to assume that, in keeping with OST research, MBP will likely be partially or totally washed out during the occupational socialization stage (i.e., beginning teaching) (Blankenship & Coleman, 2009; Curtner-Smith, 2001; Graber, 1998; Harvey & Pill, 2016; Lortie, 1975;

Richards, Housner & Templin, 2018; Schempp, Sparkes & Templin, 1993; Smyth, 1992; Stroot et al., 1993; Zeichner & Tabachnick, 1981).

Relating to fidelity of model implementation, Hastie and Casey (2014) recommended three key elements to guide *fidelity* in future investigations on MBP:

> (a) rich description of the curricular elements of the unit,
>
> (b) a detailed validation of model implementation, and
>
> (c) a detailed description of the program context that includes the previous experiences of the teacher and students [pupils] with the model or with models-based practice (p. 423).

My dissertation does detail each of the four models used in this research and the pedagogical reasoning behind choosing these particular models (see Chapter 3). As well, detailed descriptions of the research contexts such as the university context, programmatic context, pedagogical context (i.e., MBP), and course contexts are provided (see Chapter 3). Detailed descriptions of the curricular elements of the unit are not provided in the traditional sense, however. Rather, the variety of data analyzed (e.g., reflective teacher and PST journals, learning plans, other course artifacts like course syllabi, flipcharts, and handouts, and interview data), and colleague critical observation using benchmark sheets (Metzler, 2011), taken in combination with the other two elements of fidelity, provide an overall picture of the curricular elements of the unit. However, increasing the number and quality of critical observations by colleagues using validated tools such as the Tool for Assessing Responsibility Education (TARE) (Wright & Craig, 2011) for TPSR, the 17-point CL validation tool (Dyson, Casey, & Goodyear, 2013), and benchmark sheets (Metzler, 2011) would have bolstered the fidelity of model implementation in this MBP research.

In Chapter 4, the issue of validity was addressed. S-STEP, like other forms of practitioner research, establishes validity through the trustworthiness, credibility, confirmability, and *transferability* of knowledge claims (Casey 2017; Hamilton, 2004; Lincoln & Guba, 1985, 1990; Lyons & LaBoskey, 2002; Mishler, 1990). Trustworthiness, for example, is built through the triangulation of multiple sources of data and perspectives (Feldman, 2003; Ham & Kane, 2004; LaBoskey, 2004; Loughran & Northfield, 1998). In building the trustworthiness of this research, I detailed: ways in which characteristics of quality self-study were followed; methodological considerations such as the relationship between the research design, context, and participants; the multiple forms of data collected; ways in which the data were analyzed; and continued ethics approval. It is at this point that I depend on others to determine further trustworthiness of this research in part by confirming that my claims ring true and/or are transferable to contexts beyond my own. Until others challenge my knowledge claims implementing MBP in PETE, transferability, as one measure of trustworthiness, remains uncorroborated.

Conclusion

My research examined the development and articulation of a pedagogy of physical education using MBP. From this overarching purpose, I considered what I learned about implementing MBP in PETE from both my perspective as a teacher educator and PSTs' experiences learning about and through MBP. I also considered ways in which examining my practice contributed to the fields of PETE, teacher education, and PE. I will close this chapter, and the dissertation, by briefly revisiting each of the research questions, insights gained, and contributions to the fields of PETE, teacher education, and PE.

Examining my implementation of MBP in PETE from an emic perspective revealed the complexity and problematic nature of learning to teach teachers. Successfully integrating my social constructivist beliefs into my practice, developing ways for PSTs to simultaneously learn about and through MBP, and supporting PSTs in becoming familiar with MBP as an innovative approach to PE, were complex challenges. Building community, supporting PSTs putting themselves in the shoes of a professional, learning to integrate course purpose and approach, and learning to unpack my teacher education practice with PSTs were practices that I developed as I learned to teach teachers through the implementation of MBP in PETE. PSTs' experiences and perspectives further informed my practice, ultimately adding to my understanding of teaching teachers. I found that making the unfamiliar practice of MBP seem more familiar in part by integrating learning both about and through was embraced by PSTs as supporting their understanding of MBP. In addition, including community building as part of my PETE practice was validated by PSTs as supporting their understanding of MBP, but also as contributing to their overall education experience within the walls of the university as well as impacting their lives beyond the context of post-secondary.

From lessons learned examining my teacher education practice using S-STEP, I was able to develop eight principles of practice implementing MBP in PETE, as well as an overarching pedagogy of teacher education. In doing so, I faced challenges in my teacher education practice. My teaching actions are becoming better aligned with my teaching beliefs about learning. I understand the impact of my past socialization on my teaching beliefs, ideas, and perspectives, but also recognize the influence I have over my secondary socialization as I continue to develop as a teacher educator-researcher. I embrace researching

teacher education/teacher educator practice as both a collaborative and interdisciplinary endeavour that is vitally important to informing practice. I am also supported in my belief that PSTs offer a unique lens and can provide indispensable insights into teacher educator practice. These results have contributed to my overall pedagogy of teacher education, which includes community building, making the unfamiliar familiar, and encouraging PSTs to put themselves in the shoes of the professional.

Results of this self-study of teacher education practice have supported my development as a teacher educator-researcher; I am developing an overall greater self-confidence in myself as a teacher educator and researcher. Developing a pedagogy of teacher education is self-initiated professional development that builds knowledge of practice. Building my knowledge of practice supported me in becoming better informed about my beliefs, actions, and approaches leading to a deeper understanding of my teacher educator practice. Articulating these deeper understandings in relation to the work of teacher educators and the field of teacher education through principles of practice and a pedagogy of teacher education has implications for my identity. For example, examining my practice though the lens of OST and a pedagogy of teacher education framework has made me acutely aware of feelings of insecurity, uncertainty, and vulnerability. However, building stronger connections to the work of others and the field of teacher education through the articulation and sharing of principles of practice and a pedagogy of teacher education supports me in understanding and taking control of these feelings. I now strongly identify as an innovative teacher, teacher educator, and researcher invested in improving my practice through research for the benefit of myself, PSTs, teacher education, and PE reform. I am also a teacher educator-researcher who identifies with a social-constructivist perspective to

learning and values insights gained through this perspective that might otherwise be lost. For example, I have become more attuned to PSTs' voice as uniquely contributing to both the development of teacher educator practice and pedagogy, but also to teacher education as a context for teaching about teaching, learning about teaching, and learning about learning. I am also a researcher who believes in research-informed practice and professional development as contributing to both personal and others' practice and pedagogy, but also to PE reform. Above all else I am a teacher educator-researcher who is motivated to continue to explore the complexities of teacher educator practice as my principles of practice implementing MBP and pedagogy of teacher education continue to evolve.

The development and sharing of both principles of practice implementing MBP in PETE, and a pedagogy of physical education teacher education, also contributes to the field of teacher education for its potential to improve the quality of teaching about teaching. My research offers insights into how principles of practice and a pedagogy of teacher education might be examined, developed, articulated, and shared for use by other teacher educator-researchers. While my research aligns with others' principles of practice in PETE, it also provides unique principles of practice explicit to the implementation of MBP in PETE. Results from my research also build on the limited understanding of MBP implementation and the influential factors that contribute to the challenges that teacher educators face in its enactment in PETE. My eight principles of practice implementing MBP in PETE provide: (a) insights into ways in which MBP can form the foundation for a pedagogy of PETE practice, (b) what enactment of MBP might look like in PETE that enables PSTs to learn about and engage in its complexity, and (c) guidance for others, at all levels of education, interested in answering the call for more MBP research and implementation as a possible PE

future. My research also makes contributions to S-STEP methodology. Findings from my research build on the crucial role of interaction in S-STEP by establishing the value of PSTs as critical contributors—a role akin to that of critical friend/colleague—in the development of teacher educator practice.

In the spirit of self-study, my research is now offered to others to question, examine, critique and build upon so that the knowledge of teacher education practice, and implementation of MBP in PETE and other contexts, might be better understood and valued.

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Example of Cooperative Learning Roles Sheet

LEADER Makes sure that every voice is heard. Focuses work around the learning task. ***Sound bites:*** • *Let's hear from ____ next."* • *"That's interesting, but let's get back to our task."*	**RECORDER** Compiles group members' ideas on collaborative graphic organizer. Writes on the board for the whole class to see during the presentation. ***Sound bites:*** • *"I think I heard you say_____; is that right?"* • *"How would you like me to write this?"*
TIME KEEPER Encourages the group to stay on task. Announces when time is halfway through and when time is nearly up. ***Sound bite:*** • *"We only have five minutes left. Let's see if we can wrap up by then."*	**PRESENTER** Presents the group's finished work to the class. ***Sound bite:*** • *"How would you like this to sound?"*
ERRAND MONITOR Briefly leaves the group to get supplies or to request help from the teacher when group members agree that they do not have the resources to solve the problem. ***Sound bites:*** • *"Do you think it's time to ask the teacher for help?* • *"I'll get an extra graphic organizer from the shelf."*	

Appendix B: Teacher and Student Benchmarks

Teacher Name: _____ Date: _____

TPSR Teacher Benchmarks[16]

☐ Teacher plans a regular lesson of physical activity content.

Check the lesson plan.

☐ Teacher is aware of each student's[17] level of responsibility.

Teacher has a record of each student's progression through the levels, including current level.

☐ Teacher identifies needed TPSR learning activity.

The teacher observes students in the physical activity content and notes behavior that indicates a need to use one of the TPSR learning activities.

☐ Teacher explains the need for the TPSR activity.

Observe the teacher's explanation.

☐ Teacher sets clear expectations for the upcoming TPSR activity.

Teacher checks for understanding often.

☐ Teacher allows students to participate in the decision-making and goal-setting processes.

1. Observe the teacher's interactions with students.

2. Ask students if they feel that they were allowed to participate.

☐ Teacher does a review and closure to discuss student progress regarding personal and social responsibility.

1. Check the teacher's lesson plan.

2. Observe and record the teacher's interactions with students in the review and closure segment.

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[16] https://routledgetextbooks.com/textbooks/9781934432136/chapter15.php

[17] A reminder that these (and other appendices) are other author's original works and as such the use of "student" will not be changed to "pupil" but remains synonymous to that of K-12 learner. In addition, the use of "lesson plan" will not be changed to my preferred term of "learning plan".

Class: Date:

TPSR Student Benchmarks[18]

☐ Students know their own level.

1. Ask students to tell their level.

2. Ask students to give examples of behaviors and decisions at their level.

☐ Students understand why the TPSR learning activity was needed.

Observe students as the teacher explains, to determine if they agree with what the teacher saw.

☐ Students make an honest effort in the TPSR activity.

Observe students while they engage in the TPSR activity, and note events that indicate their effort.

☐ Students do not "backslide" (go back to a lower level too often).

Monitor student behavior according to the levels, and note behavior that is indicative of a lower level than their present one. (Occasional backsliding is to be expected, but frequent backsliding is not.)

[18] https://routledgetextbooks.com/textbooks/9781934432136/chapter15.php

Teacher Name: Date:

Cooperative Learning Teacher Benchmarks[19]

☐ Teacher selects heterogeneous and equitable teams.
1. The teacher lists the criteria used for making selections.
2. The teacher shows a plan for how each student was assigned.
3. The teacher asks students for their feedback on selections.

☐ Teacher selects an appropriate assigned learning task.
1. The task has stated time limits and procedures.
2. The task can be completed by all teams in the allocated time.
3. The task requires a contribution by all team members.
4. The task challenges teams in all three domains.

☐ Teacher selects an appropriate Cooperative Learning strategy.
1. The task is one of the recognized Cooperative Learning strategies, and not simply "grouped learning."
2. The task challenges students to learn in all three domains.

☐ Teacher frames the assigned learning tasks.
1. The teacher provides sufficient information about the task without giving clues for completing the task.
2. Teams become engaged right away, indicating that they understand the task and its structure.

☐ Teacher serves as a facilitator during tasks.
1. The teacher monitors the number and types of interactions he or she initiates.
2. The teacher should use indirect statements and questions—and only when interaction is initiated by students.

☐ Teacher monitors and processes for social learning outcomes.
1. The teacher includes a planned segment to process for social learning outcomes.
2. The teacher uses few, if any, direct statements in this segment.

☐ Teacher designs assessments for performance and social learning.
1. Check the teacher's plan for these components.
2. Assessments should be designed for team achievement, with each team member having individual accountability.
3. Assessment should include specific social learning goals.

[19] https://routledgetextbooks.com/textbooks/9781934432136/chapter10.php

Class: Date:

Cooperative Learning Student Benchmarks[20]

☐ Students view teams as being fair.

Students are asked for their comments on the selection process and indicate no objections.

☐ Students understand the assigned task.

1. Teams begin right away to work on the task.

2. Teams ask few clarification questions of the teacher.

☐ Students understand the cooperative strategy in place.

1. Teams begin right away to allocate time and other resources for the task.

2. Teams quickly formulate a "plan of attack."

3. Teams follow the procedures given for completing the task.

☐ Teams share the work and the accountability of all members.

1. Teams assign individual members to specific "jobs."

2. Teams chart the contributions of each member.

3. Teams complete peer evaluations of other members.

☐ Teams use peer teaching to improve performance and publicly support each member's efforts.

Monitor the type and frequency of interactions within teams.

☐ Teams show improvement on performance assessments.

Compare assessment scores over time.

☐ Teams show evidence of social learning.

Teacher or peers use critical incident reports or checklists to identify instances of positive and negative social behaviors.

[20] https://routledgetextbooks.com/textbooks/9781934432136/chapter10.php

Teacher Name: Date:

Peer Teaching Teacher Benchmarks[21]

☐ Unit content is broken into a series of small learning tasks, leading to larger learning goals.
Review the teacher's task analysis, content listing, and content progression prior to the start of the unit.

☐ Teacher reviews previous day's content.
Review teacher's lesson plan to include a set induction that covers this.

☐ Teacher presents a clear and effective task presentation to tutors.
1. The teacher checks often for understanding in the task presentation.
2. The teacher observes learners as they begin to practice. Are they doing the task correctly?

☐ Teacher presents a clear task structure.
The teacher observes learners as they begin to practice. Are they engaged in the way described by the teacher?

☐ Teacher uses a brisk pace through content progression.
1. Teacher plans a series of small learning tasks.
2. Teacher has quick transitions between planned class segments and role changes within learning activities.

☐ Teacher primarily uses questions to interact with tutors during learning activities.
Record the frequency and types of questions directed by the teacher to tutors.

☐ Learning tasks have a mastery criterion.
1. Check lesson plan.
2. Use written assessments to verify learners' mastery.

☐ Regular content reviews are made.
1. Check the unit plan.
2. Record the timing and focus of each review.

[21] https://routledgetextbooks.com/textbooks/9781934432136/chapter12.php

Class: Date:

Peer Teaching Student Learner Benchmarks[22]

☐ Learners understand task presentation.

Count the number of learners who are doing the skill/movement/concept as it was initially described by the teacher.

☐ Learners understand task structure. Count the number of learners who:

a. are engaged according to the teacher's directions to tutors.

b. have modified the task.

c. have withdrawn from the task.

☐ Learners have high rates of OTR.

1. Count the number of practice attempts (if frequency is the best indicator of OTR).

2. Measure how much actual practice time learners get (if time is the best indicator of OTR).

☐ Learners have high rates of ALT.

Monitor a sampling of learners with a valid ALT-PE recording instrument.

☐ Learners get high rates of positive and corrective feedback.

Record and analyze the tutors' feedback to learners.

☐ Learners have mastered content.

Learners complete and pass regular assessments monitored by tutors.

[22] https://routledgetextbooks.com/textbooks/9781934432136/chapter12.php

Class: Date:

Peer Teaching Student Tutor Benchmarks[23]

☐ Tutors comprehend task presentation.

1. Count the number of correct answers when the teacher checks for understanding.

2. Monitor each tutor's task presentation to the learner, noting correct and incorrect information.

☐ Tutors comprehend task structure.

1. Count the number of correct answers when the teacher checks for understanding.

2. Allow pairs to set up the learning environment and the learners to begin practice. Scan and count the number of learners who:

a. are engaged as directed by the teacher.

b. have modified the task.

c. are off-task.

☐ Tutors provide high rates of positive and corrective feedback.

Monitor the type and rate of feedback from the tutor to the learner.

☐ Tutors and learners work cooperatively.

Monitor interaction patterns within dyads.

☐ Tutors can analyze movement skills/concepts correctly.

Teacher and tutor use an identical checklist while observing the same learner and compare records after each attempt.

[23] https://routledgetextbooks.com/textbooks/9781934432136/chapter12.php

Teacher Name: Date:

Tactical Games Teacher Benchmarks[24]

☐ Teacher uses a tactical problem as the organizing center for learning tasks.
Check content listing, with tactical problems written out.

☐ Teacher begins each unit segment with a game form to assess student knowledge.
Check unit plan.

☐ Teacher identifies needed tactical and skill areas from game form.
Teacher can make a list of tactical areas in each unit segment and make a written assessment of students' knowledge in each area after observing each game form.

☐ Teacher uses deductive questions to get students to solve the tactical problem.
1. Check teacher's lesson plan.
2. Make a list of all questions asked and student responses.

☐ Teacher uses clear communications for situated learning tasks.
Observe students as they organize each task. Students should quickly set up and engage in the task according to the teacher's directions.

☐ Teacher uses high rates of guides and feedback during situated learning tasks.
Record the content and frequency of the teacher's instructional interactions.

☐ Teacher provides a review that includes the tactical problems of the lesson.
1. Check the teacher's lesson plan.
2. Record the number of times the teacher checks for understanding at the end of each lesson.

☐ Assessment.
1. Check the teacher's unit and lesson plans.
2. Review the teacher's checklists for tactical decision making and skill execution (e.g., use the GPAI).

[24] https://routledgetextbooks.com/textbooks/9781934432136/chapter14.php

Class: Date:

Tactical Games Student Benchmarks[25]

☐ Students are given time to think about deductive questions regarding the tactical problem.

1. Observe the teacher's use of wait time.

2. Make a record of how many times each student is called on to answer.

☐ Students understand how to set up situated learning tasks.

Observe students as they organize each task. Students should quickly set up and engage in the task according to the teacher's directions.

☐ Students are making situated tactical decisions.

1. Record correct and incorrect answers students give to teacher's questions during learning tasks.

2. Observe students' tactical decision making and skills during learning tasks.

☐ Game modifications are developmentally appropriate.

Observe students as they are engaged. Does the modification make the game too simple or too complex for them?

☐ Students are able to progress on tactical knowledge as they move along in the task progression.

Monitor game forms, modified games, and full games with the GPAI. Note which game performance components are not demonstrated as the complexity of learning tasks increases. Some drop-off will occur each time the complexity increases, but the drop should be only temporary.

☐ Students have learned tactical awareness, decision making, and situated skills.

Monitor students with the GPAI or another authentic assessment technique.

[25] https://routledgetextbooks.com/textbooks/9781934432136/chapter14.php

Appendix C: Tool for Assessing Responsibility-Based Education (TARE) Instrument

TPSR Toolbox: Resources for Research, Evaluation, and Assessment

Tool for Assessing Responsibility-Based Education (TARE)
Observation Instrument

Paul M. Wright, Ph.D.
University of Memphis
2009
Tool for Assessing Responsibility-Based Education (TARE): A Reliability Study
Abstract

Purpose: Hellison's (2003) Teaching Personal and Social Responsibility (TPSR) model has been embraced by physical education teachers for decades. The model's emphasis on empowerment and shifting responsibility to students has proven effective in varied settings (Hellison & Martinek, 2006). As the application and study of TPSR continues to expand within the US and internationally, there is an increasing need for tools to address implementation fidelity (Wright, 2008). To this end, we developed the TARE (Tool for Assessing Responsibility-based Education). The purpose of the current study was to test the instrument's use by observing 18 physical education lessons. Methods: Paired observations focused on two different teachers leading a variety of lessons for students in grades one through six. Analysis/Results: Reliabilities (i.e., percent agreement) were calculated for items contained in the three sections of the TARE. The first section consists of nine discrete teaching strategies that are consistent with TPSR such as providing students with leadership opportunities. A time-sampling methodology using five-minute intervals was employed to document the teachers' use of these strategies. Across the 18 lessons, 94 separate intervals were observed. Based on the total number of intervals, the percent agreement for items in section one ranged from 88% to 100%. Sections two and three of the TARE each contain four items that were rated holistically at the end of each lesson. Items were rated using a five-point Likert scale. The items in section two correspond to four themes Hellison (2003) describes as essential to TPSR, such as empowerment. The four items in section three correspond with the core responsibility levels of TPSR (Hellison, 2003) that can be observed

in the class setting such as respect for the rights and feelings of others. Following Lewis et al. (1999), reliability on the holistic items in sections two and three was calculated as percent agreement within one on the five-point rating scale. Using this guideline, all holistic items met an acceptable level with reliabilities ranging from 78% to 100%. Conclusions: We conclude that the TARE is a reliable and feasible instrument for assessing TPSR

implementation. While its primary application may be in TPSR research, the TARE could also be used in TPSR training. As the current national standards (NASPE, 2004) directly address personal and social responsibility as program outcomes, this instrument may have broader implications in the evaluation and improvement of K-12 physical education programs throughout the US.

TARE Observation Record

Observer Name: Colleague Date: November 4, 2013 Day of Week: M T W Th F

Start Time: 9:00 am End Time: 11:50 am

School Information
School Name: UCR School District: N/A

Locale: Urban Suburban Rural Private School Level: Elementary Middle High K-12 Other Post-Secondary

Teacher Information
Teacher Name: Kellie Baker Teacher Gender: Female although I don't know why this has to do with TPSR fidelity

Teacher Race/Ethnicity: Euro-Canadian Is teacher certified/licensed in PE?:Yes, BPE, B.Ed. (PE), MPE

Observation #: 1 of 2 for this teacher

Student Information:
Approximate Number in Class: 18 Gender: All male All female Coeducational

Race/Ethnicity: all white all minority mixture of white and minority

Special Education Included: Yes No Not sure

Part One: Observable Teaching Strategies

For each 5-minute interval, observe for the teaching strategies listed above and circle the applicable code(s) for any that are observed in that time and to record contextual comments such as key events, lesson content, examples of how strategies were used. Check off each completed interval. After the observation period is complete, tally each column.

Time Intervals	✓	Responsibility-Based Strategies									Contextual Comments
0-5	☐	M	E	S	SI	T	L	V	A	Tr	
5-10	☐	M	E	S	SI	T	L	V	A	Tr	
10-15	☐	M	E	S	SI	T	L	V	A	Tr	
15-20	☐	M	E	S	SI	T	L	V	A	Tr	
20-25	☐	M	E	S	SI	T	L	V	A	Tr	
25-30	☐	M	E	S	SI	T	L	V	A	Tr	
30-35	☐	M	E	S	SI	T	L	V	A	Tr	
35-40	☐	M	E	S	SI	T	L	V	A	Tr	
40-45	☐	M	E	S	SI	T	L	V	A	Tr	
45-50	☐	M	E	S	SI	T	L	V	A	Tr	
50-55	☐	M	E	S	SI	T	L	V	A	Tr	
55-60	☐	M	E	S	SI	T	L	V	A	Tr	
60-65	☐	M	E	S	SI	T	L	V	A	Tr	
65-70	☐	M	E	S	SI	T	L	V	A	Tr	
70-75	☐	M	E	S	SI	T	L	V	A	Tr	
75-80	☐	M	E	S	SI	T	L	V	A	Tr	
80-85	☐	M	E	S	SI	T	L	V	A	Tr	
85-90	☐	M	E	S	SI	T	L	V	A	Tr	
90-95	☐	M	E	S	SI	T	L	V	A	Tr	
95-100	☐	M	E	S	SI	T	L	V	A	Tr	
100-105	☐	M	E	S	SI	T	L	V	A	Tr	
105-110	☐	M	E	S	SI	T	L	V	A	Tr	
110-115	☐	M	E	S	SI	T	L	V	A	Tr	
115-120	☐	M	E	S	SI	T	L	V	A	Tr	
Tallies											

Codes: (M)odeling Respect; Setting (E)xpectations; Opportunities for (S)uccess; Fostering Social (SI)nteraction; Assigning (T)asks; (L)eadership; Giving Choices and (V)oices; Role in (A)ssessment; (Tr)ansfer

Part Two: Personal-Social Responsibility Themes

After the observation period and interval coding is completed on the first page, provide a holistic rating for these general themes. Consider the overall tone and content of the lesson as well as the Responsibility-based Strategies observed. Interval contextual comments can also guide this qualitative summary.

	4- Extensively	3- Frequently	2- Occasionally	1- Rarely	0- Never	Comments
Integration: extent to which responsibility roles and concepts are integrated into the physical activity	4	3	2	1	0	
Transfer: extent to which connections being made to the application of life skills in other settings	4	3	2	1	0	
Empowerment: extent to which the teacher shares responsibility with students	4	3	2	1	0	
Teacher-Student Relationship: extent to which students are treated as individuals deserving respect, choice, and voice	4	3	2	1	0	

Extensively – Theme is seamlessly addressed directly and evidenced in multiple ways throughout the lesson through the words and actions of the teacher.

Frequently - Theme is addressed directly and evidenced at several points in the lesson through the words and actions of the teacher.

Occasionally – Some of the teachers' words and actions connect to this theme either directly or indirectly during the lesson.

Rarely – This theme is not generally integrated into the teaching but may be reflected in some isolated words or actions on the teacher's part.

Never – Throughout the entire lesson, none of the teacher's words or actions clearly convey or align with this theme.

Part Three: Student Responsibility

After the observation period and interval coding is completed on the first page, provide a holistic rating for these general areas of student responsibility. Consider observed student behavior and interaction throughout the lesson. This rubric assesses the group overall and not individual students.

	4- Very Strong	3- Strong	2- Moderate	1- Weak	0- Very Weak	Comments
Self-Control: Student does no harm to others verbally or physically; includes/works well with others; resolves conflicts peacefully if they emerge	4	3	2	1	0	
Participation: Student will try every activity and take on various roles if asked	4	3	2	1	0	
Effort: Student tries hard to master every task and focuses on improvement	4	3	2	1	0	
Self-Direction: Student will stay on task without direct instruction or supervision whether working alone or with others; doe not seem to follow bad examples or peer pressure	4	3	2	1	0	
Caring: Student will help, encourage others, and offer positive feedback	4	3	2	1	0	

Very Strong – All students displayed this responsibility throughout the lesson with no observed exceptions.

Strong – Most students displayed this responsibility throughout the lesson with only minor and/or isolated exceptions.

Moderate – Many students displayed this responsibility but many did not; several exceptions were observed.

Weak – Some students displayed this responsibility, but many did not; exceptions were frequent and/or serious enough to impede learning.

Very Weak – Few, if any, students displayed this responsibility while the majority struggled to do so; exceptions were frequent and/or serious enough that at least some portions of the lesson were rendered ineffective.

Part Four: Additional Comments or Contextual Notes

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Extended Description of Responsibility-Based Teaching Strategies

Modeling Respect (M): Teacher models respectful communication. This would involve communication with the whole group or individual students. Looks like: appropriate communication and instruction and unconditional positive regard. Does not look like: rolling out the ball, losing temper, or embarrassing students.

Setting Expectations (E): Teacher explains or refers to explicit behavioral expectations. These could relate to skill performance, safe practices, rules and procedures, or etiquette.

Opportunities for Success (S): Teacher structures lesson so that all students have the opportunity to successfully participate and be included regardless of individual differences.

Fostering Social Interaction (SI): Teacher structures activities that foster positive social interaction. This could involve student-student interaction through cooperation, teamwork, problem solving, conflict resolution or debriefing. [This only counts if it is structured by the teacher; rolling out the ball does not count.]

Assigning Tasks (T): Teacher assigns specific responsibilities or tasks (other than leadership) that facilitate the organization of the program or a specific activity. This could look like taking attendance, setting up equipment, keeping score/records, or officiating a game.

Leadership (L): Teacher allows students to lead or be in charge of a group. This could look like demonstrating for the class, leading a station, teaching/leading exercises for the whole class, or coaching a team.

Giving Choices and Voices (V): Teacher gives students a voice in the program. This could involve group discussions, voting as a group; individual choices, students asking questions, making suggestions, sharing opinions, evaluating the teacher or program.

Role in Assessment (A): Teacher allows students to have a role in learner assessment. This could take the form of self- or peer-assessment related to skill development, behavior, attitude, etc.; it could also involve goal-setting or a negotiation between teacher and student on their grade or progress in the class.

Transfer (Tr): Teacher directly addresses the transfer of life skills or responsibilities from the lesson beyond the program. This could include links such as: the need to work hard and persevere in school; the importance of being a leader in your community; keeping your self-control to avoid a fight after school; setting goals to achieve what you want in sports; the need to be a good team player when you grow up and get a job; or the value of thinking for yourself to avoid peer-pressure.

Appendix D: Cooperative Learning Student and Colleague Observation Sheets

Cooperative Learning Teacher Benchmarks
Provide a holistic rating for these general themes. Consider the overall tone and content of the lesson as well as the Cooperative Learning strategies observed. Interval contextual comments (anecdotal observations/comments) can also guide this qualitative summary.

	4- Extensively	3- Frequently	2- Occasionally	1- Rarely	0- Never	Comments
Heterogeneous groups (i.e., equitable)	4	3	2	1	0	
Teacher selects an appropriate assigned learning task	4	3	2	1	0	
Teacher selects an appropriate cooperative learning structure (strategy	4	3	2	1	0	
Teacher frames the assigned learning tasks (developmentally appropriate)	4	3	2	1	0	
Teacher serves as a facilitator during the task	4	3	2	1	0	
Teacher monitors and processes for social learning outcomes	4	3	2	1	0	
Teacher designs assessments of performance for social learning	4	3	2	1	0	

Extensively – Theme is seamlessly addressed directly and evidenced in multiple ways throughout the lesson through the words and actions of the teacher.

Frequently - Theme is addressed directly and evidenced at several points in the lesson through the words and actions of the teacher.

Occasionally – Some of the teachers' words and actions connect to this theme either directly or indirectly during the lesson.

Rarely – This theme is not generally integrated into the teaching but may be reflected in some isolated words or actions on the teacher's part.

Never – Throughout the entire lesson, none of the teacher's words or actions clearly convey or align with this theme.

N/A – Did not have the opportunity to observe.

Additional Comments or Contextual Notes

Cooperative Learning Student Benchmarks

Provide a holistic rating for these general themes. Consider the overall tone and content of the lesson as well as the Cooperative Learning strategies observed. Interval contextual comments (anecdotal observations/comments) can also guide this qualitative summary.

	4- Extensively	3- Frequently	2- Occasionally	1- Rarely	0- Never	Comments
Students view groups as being fair	4	3	2	1	0	
Students understand the assigned task	4	3	2	1	0	
Students understand cooperative structure (strategy) in place	4	3	2	1	0	
Groups share the work and the account-ability across all members	4	3	2	1	0	
Groups used peer teaching to improve performance and publicly support each member's efforts	4	3	2	1	0	
Groups show improvement on performanc assessments	4	3	2	1	0	
Groups show evidence of social learning	4	3	2	1	0	

Extensively – Theme is seamlessly addressed directly and evidenced in multiple ways throughout the lesson through the words and actions of the teacher.

Frequently - Theme is addressed directly and evidenced at several points in the lesson through the words and actions of the teacher.

Occasionally – Some of the teachers' words and actions connect to this theme either directly or indirectly during the lesson.

Rarely – This theme is not generally integrated into the teaching but may be reflected in some isolated words or actions on the teacher's part.

Never – Throughout the entire lesson, none of the teacher's words or actions clearly convey or align with this theme.

N/A – Did not have the opportunity to observe

Additional Comments or Contextual Notes

Appendix E: Interview Guiding Questions and Scripts

Interview 1

Pre-Interview Script:
Thank you very much for agreeing to participate in this research. I would like to take a minute to remind you about the purpose of the self-study which is to better understand, develop, facilitate, and articulate the *teaching-learning process* and *knowledge of practice* in order to maximize the benefits for my current and future post-secondary students, their students, and for myself as a current practitioner and researcher.

You have already signed a consent form but I would like to remind you that you are free to drop out or withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (kmbaker@ucr.ca; 123-4567).

The interview will take approximately 1 hour. You should feel free to skip over, come back to, or change your answer to any question at any time during the interview. Your name will be replaced with a pseudonym and any references to institutions such as schools, school boards, universities, or communities will also be replaced with a pseudonym. You will be provided with a typed transcript of this interview several weeks after it is completed, and you are free to change any responses as you see fit.

Before we begin, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

A. Background information

Question	Targets/Ideas
1. Can you please tell me a little bit about your background? For example, how old you are, where you are from, how big your home community is.	
2. Can you please tell me a little bit about the university program that you are enrolled in? For example, what degree program you are in, what courses you have completed so far? Probe: What courses (or topics within those courses) have you found particularly helpful so far? And what have you found most enjoyable so far? Why?	
3. Can you please tell me a little bit about your schooling background? For example, the size of schools you went to and where they were located.	

B. Previous PE experiences

Question	Targets/Ideas
4. Thinking back to your K-12 physical education experiences, what did you think of physical education? -What do you recall most vividly when you think about physical education when you were a student? -Can you please share any positive experiences that you may recall? -Can you please share any negative experiences you can recall?	
5. What types of teaching styles/methods do you recall being used when you were in elementary and high school physical education? -What did you like about the teaching styles/methods your elementary school teachers of physical education used? -What did you not like about the teaching styles/methods your elementary school teachers of physical education used?	Looking for ability to identify teaching styles/methods and apply that back to way in which they have been taught

Part C: Post-Secondary Experiences

Question	Targets/Ideas
6. What pedagogical/instructional model(s) have you learned about in HKR (2210, 2220, 4220) this past term?	
7. What does Models-Based Practice mean to you? Why/How/In what ways?	
8. What models do you recall being used by other profs in the SHKR faculty? When were they used?	Identification of MBP
9. In what ways do you find models-based practice similar to your prior teaching and learning experiences in physical education? In what ways do you find them different?	MBP as the adoption of multiple pedagogical models
10. What have you learned about teaching and learning physical education content based in Models-Based Practice Pedagogy?	The *what* of MBP
11. In what ways did specific techniques and/or methods that Kellie (I) employed in the classroom, in the gymnasium, on the field, through D2L or electronic communication facilitate your learning of MBP pedagogy?	Looking for both theoretical and practical (about & in) the *how & what*
12. In what ways did specific techniques and/or methods that Kellie (I) employed in the classroom, in the gymnasium, on the field, through D2L or electronic communication not facilitate your learning of MBP pedagogy?	Looking for both theoretical and practical (about & in) the *how & what*
13. What did you find challenging about learning about/through MBP? Why was it challenging?	
14. Was there a specific moment of learning about/through MBP that really stood out to you positively or negatively? Why did it stand out? How did it help you differentiate MBP from your previous experiences or how did this experience support previous MBP experiences?	
15. What is the likelihood that you will use singular pedagogical models in your future practice? Why?	
16. What is the likelihood that you will use MBP in your future practice? Why?	

C. Critical Approach to Teaching and Pedagogy

Question	Targets/Ideas
17. In what ways, if any, did this course (or others) help you feel better prepared to critically reflect on your learning and teaching? In other words, how prepared do you feel to critically reflect on past, present and future experiences and how this might affect future pedagogical decisions you might make? Probe: What, if anything has led you to be able to change how yo reflect upon your experiences? (e.g., course(s) at UCR)	Development of a critical approach to teaching and pedagogy?
18. What, if anything, from this course, do you feel will help you improve your future practice?	Improvement in stude future practice
19. After reflecting on your experiences with what and how you learned MBP in this course, what advice would you give Kellie (me) in order for her to better meet your needs in learning about and through MBP throughout the course? -What advice would you give Kellie (me) in order to better meet the needs of your classmates?	Improvement in my practice form the eyes of a student
20. How do you feel learning about and through MBP can apply to improvement in practice (the teaching and learning of PE or other courses?	

Debrief:
Thank you again for participating in this research. If there's a need for clarification or to ask additional questions I may need to contact you again. If you would like to clarify anything or change anything you should also feel free to do. My contact information is on the consent form you signed. If you need my contact information, I can provide it to you again as well. Once I have the interview transcribed, I'll send it to you so that you can be sure it captures your intent.

Now that the interview is over, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

Interview 2

Pre-Interview Script:

Thank you very much for agreeing to participate in this research. I would like to take a minute to remind you about the purpose of the self-study which is to better understand, develop, facilitate, and articulate the *teaching-learning process* and *knowledge of practice* in order to maximize the benefits for my current and future post-secondary students, their students, and for myself as a current practitioner and researcher.

You have already signed a consent form but I would like to remind you that you are free to drop out or withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (kmbaker@ucr.ca; 123-4567).

The interview will take approximately 1 hour. You should feel free to skip over, come back to, or change your answer to any question at any time during the interview. Your name will be replaced with a pseudonym and any references to institutions such as schools, school boards, universities, or communities will also be replaced with a pseudonym. You will be provided with a typed transcript of this interview several weeks after it is completed, and you are free to change any responses as you see fit.

Before we begin, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

	Targets/Ideas
1. Which courses of 2210, 2220 and 4220 did you take with me? How long ago was each course?	Background
2. Last interview we discussed that we learned about and through TPSR in 2210, CL & Peer Teaching in 2220 and TGfU in 4220. Since our last conversation, and after this quick recap, what do yo understand MBP to be? How do you feel you gained that understanding of MBP?	Definition
3. What is the likelihood that you will use pedagogical models? What made you decide this?	

4. What is the likelihood that you will use MBP? What made you decide this?	
5. What do you think are the reasons that I chose MBP for my courses that you were a part of?	
6. Since we last spoke have you noticed, or have you recalled models being used by other profs in the SHKR faculty or in your K-12 schooling? If so, when were they used? How were they used?	Identification of MBP
7. What have you learned about teaching and learning physical education content based in MBP Pedagogy? How did you learn about these?	The *what* of MBP
8. What were the <u>specific techniques, methods, and/or approaches</u> that I employed in the classroom, in the gymnasium, on the field, through D2L or electronic communication facilitate your learning of MBP pedagogy? Probe: What are the things that Kellie did to facilitate our learning about and through MBP and pedagogical models that you will take away with you and implement on your own?	Looking for both theoretical and practical (about & in); the *how & what*
9. In what ways did <u>specific techniques, methods, and/or approaches</u> that I employed in the classroom, in the gymnasium, on the field, through D2L or electronic communication not facilitate your learning of MBP pedagogy? Probe: Same as #8	Looking for both theoretical and practical (about & in); the *how & what*
10. Was learning about and through MBP challenging or easy? Why? What made it challenging or easy?	
11. Was there a specific moment of learning about/through MBP that really stood out to you positively or negatively? Why did it stand out? How did it help you differentiate MBP from your previous experiences or how did this experience support previous MBP experiences?	

C. Critical Approach to Teaching and Pedagogy

Question	Targets/Ideas
12. What, if anything, from this course, do you feel will help you improve your future practice?	Improvement in stude future practice
13. After reflecting on your experiences with what and how you learned MBP in this course, what advice would you give me in order for her to better meet your needs in learning about and through MBP throughout the course? -What advice would you give Kellie in order to better meet the needs of your classmates?	Improvement in my practice form the eyes of a student
14. How do you feel learning about and through MBP can apply to improvement in practice (the teaching and learning of PE or other courses?	

Debrief:
Thank you again for participating in this research. If there's a need for clarification or to ask additional questions I may need to contact you again. If you would like to clarify anything or change anything you should also feel free to do. My contact information is on the consent form you signed. If you need my contact information, I can provide it to you again as well. Once I have the interview transcribed, I'll send it to you so that you can be sure it captures your intent.

Now that the interview is over, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

Interview 3: Students who had experienced a placement in a school PE context

Pre-Interview Script:

Thank you very much for agreeing to participate in this research. I would like to take a minute to remind you about the purpose of the self-study which is to better understand, develop, facilitate, and articulate the *teaching-learning process* and *knowledge of practice* in order to maximize the benefits for my current and future post-secondary students, their students, and for myself as a current practitioner and researcher.

You have already signed a consent form but I would like to remind you that you are free to drop out or withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (kmbaker@ucr.ca; 123-4567).

The interview will take approximately 1 hour. You should feel free to skip over, come back to, or change your answer to any question at any time during the interview. Your name will be replaced with a pseudonym and any references to institutions such as schools, school boards, universities, or communities will also be replaced with a pseudonym. You will be provided with a typed transcript of this interview several weeks after it is completed, and you are free to change any responses as you see fit.

Before we begin, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

1. Welcome to interview 3. Now that you've been out in the schools, what do you understand MBP to be? Where did this understanding come from?
2. What have you learned in 2210, 2220, and 4220 about teaching and learning physical education content based in MBP Pedagogy? --How did you learn about these?
3. Was learning about and through MBP challenging or easy? Why? What made it challenging or easy? Were you able to see yourself using it in schools when you were learning about it at the university?
4. What other contexts can you see MBP being used in? --What have you learned in 2210, 2220, 4220 about applying MBP to other content and contexts? How/Why? --Were there specific techniques, methods, and/or approaches that I employed in the classroom, in the gymnasium, on the field, through D2L or electronic communication t help you be able to answer the question above?
5. During other courses at UCR, or within other contexts, did you find yourself thinking, for example, TPSR/ CL/Peer Teaching/TGfU would be appropriate here?

Or “if I was running this/the head of this/the leader of this I’d use TPSR, CL, Peer Teaching, or TGfU here”? -- Can you explain that/those scenarios?
6. Now that you have - been removed from 2210, 2220, 4220 for 4 months to a year and you -have/have not seen/used MBP in other contexts, what, if anything, from this course, do you feel will help you improve your future practice”? - How do you feel learning about and through MBP can apply to improvement in practice (the teaching and learning of PE/teaching and learning in other contexts)
7. Thinking back to the last question, how do you feel learning about and through MBP does not apply to improvement in practice (the teaching and learning of PE/teaching and learning in other contexts)?
8. Now that you’ve been removed from MBP for close to a year, and after reflecting on your experiences with what and how you’ve learned MBP in 2210, 2220, 4220 what advice would you give me in order to better meet your needs in learning about and through MBP throughout the course?
9. Now that you’ve been out in the schools, what is the likelihood that you will use pedagogical models? What made you decide this?
10. Now that you’ve been out in the schools, what is the likelihood that you will use MBP? What made you decide this?
11. Now that you’ve been out in the schools, what do you think are the reasons that I chose MBP for my courses that you were a part of?

Debrief:
Thank you again for participating in this research. If there’s a need for clarification or to ask additional questions I may need to contact you again. If you would like to clarify anything or change anything you should also feel free to do. My contact information is on the consent form you signed. If you need my contact information, I can provide it to you again as well. Once I have the interview transcribed, I’ll send it to you so that you can be sure it captures your intent.

Now that the interview is over, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

Interview 3: Students who had not experienced a placement in a school PE context

Pre-Interview Script:

Thank you very much for agreeing to participate in this research. I would like to take a minute to remind you about the purpose of the self-study which is to better understand, develop, facilitate, and articulate the *teaching-learning process* and *knowledge of practice* in order to maximize the benefits for my current and future post-secondary students, their students, and for myself as a current practitioner and researcher.

You have already signed a consent form but I would like to remind you that you are free to drop out or withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (kmbaker@ucr.ca; 123-4567).

The interview will take approximately 1 hour. You should feel free to skip over, come back to, or change your answer to any question at any time during the interview. Your name will be replaced with a pseudonym and any references to institutions such as schools, school boards, universities, or communities will also be replaced with a pseudonym. You will be provided with a typed transcript of this interview several weeks after it is completed, and you are free to change any responses as you see fit.

Before we begin, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

1. Welcome to interview 3. Now that you've been removed from 2210 for close to a year, what do you understand MBP to be? Where did this understanding come from?
2. What have you learned in 2210 about teaching and learning physical education content based in MBP Pedagogy? --How did you learn about these?
3. Was learning about and through MBP challenging or easy? Why? What made it challenging or easy? Were you able to see yourself using it in schools when you were learning about it at the university?
4. What other contexts you can see MBP being used in/ What have you learned in 2210 about applying MBP to other content and contexts? How/Why? --Were there specific techniques, methods, and/or approaches that I employed in the classroom, in the gymnasium, on the field, through D2L or electronic communication t help you be able to answer the question above?
5. During other courses at UCR, or within other contexts, did you find yourself thinking, for example, TPSR/ CL/Peer Teaching/TGfU would be appropriate here.

Or “if I was running this/the head of this/the leader of this I’d use TPSR, CL, Peer Teaching, or TGfU here”? -- Can you explain that/those scenarios?
6. Now that you have been removed from 2210 for close to a year and seen/used MBP in other contexts, what, if anything, from this course, do you feel will help you improve your future “practice”? - How do you feel learning about and through MBP can apply to improvement in practice (the teaching and learning of PE/teaching and learning in other contexts)
7. Thinking back to the last question, how do you feel learning about and through MBP does not apply to improvement in “practice”?
8. Now that you’ve been removed from MBP for close to a year, and after reflecting on your experiences with what and how you’ve learned MBP in 2210 what advice would you give me in order to better meet your needs in learning about and through MBP throughout the course?
9. Now that you’ve been removed from 2210 for close to a year, what is the likelihood that you will use pedagogical models? What made you decide this?
10. Now that you’ve been removed from 2210 for close to a year, what is the likelihood that you will use MBP? What made you decide this?
11. Now that you’ve been removed from 2210 for close to a year, what do you think are the reasons that I chose MBP for my courses that you were a part of?

Debrief:
Thank you again for participating in this research. If there’s a need for clarification or to ask additional questions I may need to contact you again. If you would like to clarify anything or change anything you should also feel free to do. My contact information is on the consent form you signed. If you need my contact information, I can provide it to you again as well. Once I have the interview transcribed, I’ll send it to you so that you can be sure it captures your intent.

Now that the interview is over, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

Focus Group Interview

Pre-Interview Script:

Thank you very much for agreeing to participate in this research. I would like to take a minute to remind you about the purpose of the self-study which is to better understand, develop, facilitate, and articulate the *teaching-learning process* and *knowledge of practice* in order to maximize the benefits for my current and future post-secondary students, their students, and for myself as a current practitioner and researcher.

You have already signed a consent form but I would like to remind you that you are free to drop out or withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (kmbaker@mun.ca; 864-4547). I would also like to remind you that that information shared during the focus group is protected by consent forms that you all signed and that you should respect the wishes of other participants and not divulge information participants in the study or about comments made during the focus group with anyone outside of the focus group sessions.

The interview will take approximately 1 hour. You should feel free to skip over, come back to, or change your answer to any question at any time during the interview. Your name will be replaced with a pseudonym and any references to institutions such as schools, school boards, universities, or communities will also be replaced with a pseudonym. You will be provided with a typed transcript of this interview several weeks after it is completed, and you are free to change any responses as you see fit.

Before we begin, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

1. Can you please tell us all your name and little bit about the university program that you are enrolled in? For example, what degree program you are in, what courses you have completed so far?
2. Thinking back to the course this past semester, what do you recall most vividly? This can be a positive or negative experience and does not have to be linked to MBP but can be. *Probe: For those of you who thought of a positive experience, would you also like to share negative one (and vice-versa).*
3. What pedagogical/instructional model(s) did you learn about in HKR (2210, 2220, 4220) this past term?
4. What does the term Models-Based Practice mean to you?

5. In what ways did you learn "about" (the theory of) MBP? Which did you find most beneficial and why? Which did you find least beneficial and why?
6. In what ways did you learn "in/through" (experientially) MBP? Which did you find most beneficial and why? Which did you find least beneficial and why?
7. What did you find challenging about learning about/through MBP? Why was it challenging?
8. Was there a specific moment of learning about/through MBP that really stood out to you positively or negatively? Why did it stand out? How did it help you differentiate MBP from your previous experiences or how did this experience support previous MBP experiences?
9. What is the likelihood that you will use singular pedagogical models in your future practice? Why?
10. What is the likelihood that you will use MBP in your future practice? Why?
11. In what ways, if any, did this course (or others) help you feel better prepared to critically reflect on your learning and teaching? In other words, how prepared do you feel to critically reflect on past, present and future experiences and how this might affect future pedagogical decisions you might make? *Probe: What, if anything has led you to be able to change how you reflect upon your experiences? (e.g., course(s) at UCR)*
12. What, if anything, from this course, do you feel will help you improve your future practice?
13. After reflecting on your experiences with what and how you learned MBP in this course, what advice would you give Kellie (me) in order for me to better meet your needs in learning about through MBP throughout the course? -What advice would you give Kellie (me) in order to better meet the needs of your classmates?

Debrief:
Thank you again for participating in this research. If there's a need for clarification or to ask additional questions I may need to contact you again. If you would like to clarify anything or

change anything you should also feel free to do. My contact information is on the consent form you signed. If you need my contact information, I can provide it to you again as well. Once I have the interview transcribed, I'll send it to you so that you can be sure it captures your intent.

I would also like to remind you that that information shared during the focus group is protected by consent forms that you all signed and that you should respect the wishes of other participants and not divulge information participants in the study or about comments made during the focus group with anyone outside of the focus group sessions.
Now that the interview is over, do you have any questions about the study, your rights as a participant, or my responsibilities as a researcher?

Appendix F: Interdisciplinary Committee on Ethics in Human Research (ICEHR)

Approved Participant Recruitment

August 21, 2014

Invitation to Participate in Research and Indication of Consent

Title:	Learning about and through models-based practice: A Self-Study
Researchers:	Kellie Baker (Ph. D. Candidate) School of PE & Recreation, UCR *000-123-4567 or kmbaker@ucr.ca*

You are invited to take part in a research project titled: ***Learning about and through models-based practice: A self-study.*** You are receiving this letter because you have been identified as someone who was enrolled in *UCR* course of which Kellie Baker was the instructor, more specifically *PE 201A, PE 201B, PE 202, PE 301*. Kellie Baker of *UCR* is also the principal investigator of this doctoral thesis project.

This form is part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any other information given to you by the researcher.

It is entirely up to you to decide whether to take part in this research. If you choose not to take part in the research or if you decide to withdraw from the research once it has started, there will be no negative consequences for you, now or in the future.

The purpose of the study is to understand how learning about and through models-based practice can apply to improvement in practice (i.e.: teaching about teaching/instruction and learning about teaching/instruction). Another aim is to explore how reflecting on learning can influence the development of a critical approach to teaching/instruction and pedagogy (method and practice of teaching/instruction). To complete this research, I am asking post-secondary students who have participated in my courses (*PE 201A, PE 201B, PE 202, PE 301*) to participate in one individual interview and one focus group interview with other consenting participants from these classes.

Your participation in this research will involve your participation in one individual interview and one focus group interview with other consenting participants from these classes. As well you will be asked for permission to access other forms of data from the courses listed above in which you were a student and Kellie Baker was the instructor. These include assignments (making connections/student reflective journals, learning plans, peer instruction observation

and instructor feedback, instructional effectiveness self-assessments/reflections, website reviews, resource manual entry, unit plan, assessment PPT/Prezi, observational notes by myself and any observers of our classes, tickets out the door/exit slips, and electronic communications between yourself and Kellie that pertain to the course(s) (*accompanying online learning management system* or *UCR* e-mails). It should be made clear that you will have the opportunity to give written permission or decline permission for the use of any or all of these forms of data (see below). It should also be made clear your decision to participate or not participate in the research will in no way affect your evaluation in the courses as the grades for the courses in which you participated have already been released by the Office of the Registrar. All participant names will be kept sealed and strictly confidential in a locked cabinet in the office of the principal researcher, Kellie Baker. Each interview will last approximately 1 hour. Your participation in this research is completely voluntary and there are no penalties for not participating, nor are there specific benefits for participating. However, one possible benefit of participating will be the opportunity to thoroughly reflect (in an individual and/or group interview setting) on your ideas, thoughts, beliefs and views about learning to teach/instruct thereby informing your future practice.

I believe that your participation in this research will help provide a more concrete understanding of "teaching about teaching/instructing" and "learning about teaching/instruction". At the same time, it will help me develop stronger and more beneficial courses with the view of helping future students cultivate instructionally effective practices.

If you are interested in participating in the research, please complete the form below. If you agree to participate and then change your mind, there is no penalty; you are free to withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker *(kmbaker@ucr.ca; 123-4567*). If you want to join this study at any time that also can be arranged by contacting Kellie Baker (*kmbaker@ucr.ca; 123-4567*).

The principal investigator, Kellie Baker, will keep all paper information in locked filing cabinets, and electronic files will be stored on my computer in files that will be password protected so that only the researcher will be able to access the files. According to *UCR* policy, research data will remain accessible for 5 years, after which time the information will be deleted. For all publication and presentations given, all names, hometowns, schools, districts, and any other identifying information will not be identified. Rather, pseudonyms will be used in all cases. If individual participants would like a copy of the findings, they can simply provide information to the principal investigator, Kellie Baker, about where they would like the findings sent.

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with *UCR*'s ethics policy. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson of the Interdisciplinary Committee

on Ethics in Human Research (ICEHR) at icehr*@ucr*.ca or by telephone at 000-987-6543. Please retain a copy of this for your files.
You are welcome to ask questions at any time during your participation in this research. If you have any questions at this time or in the future, please contact Kellie Baker at *000-123-4567* or *kmbaker@ucr.ca*. If you would like to become a participant in this study, please contact me so that we can set up a time for you to complete the following consent.

Kellie Baker
kmbaker@ucr.ca
Faculty of PE & Recreation
UCR
City, Province
Postal Code

Acknowledgement of Consent

Your signature on this form means that:

- You have read the information about the research
- You have been provided with the opportunity to ask questions this study
- You are satisfied with the answers to all of your questions
- You understand what the study is about and what you will be doing
- You understand that you are free to withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (*kmbaker@ucr.ca; 123-4567*), without having to give a reason, and that doing so will not affect you now or in the future.

If you sign this form, you do not give up your legal rights, and do not release the researchers from their professional responsibilities. You also agree that you will not disclose your participation in the research to Kellie Baker (Ph. D. Candidate) until all course requirements for the course (*PE 201A, PE 201B, PE 202, PE 301*) have been completed.

The researcher will give you a copy of this form for your records.

Your signature: _____

I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw from the process, including withdrawing any part of your data, including individual data collected in the focus group, from the draft thesis, up to August 15, 2015 by contacting the principal researcher, Kellie Baker (*kmbaker@ucr.ca; 123-4567*). A copy of this Consent Form has been given to me for my records.

I agree to the following forms of data, as they pertain to me, being used as part of this research project:

Movement Concepts 1 or 2

- □ Making Connections
- □ Lesson Plan
- □ Self-Assessment of peer instruction
- □ Peer Instruction observational notes/instructor feedback
- □ Observational notes by Kellie
- □ Observational notes by an outside observer
- □ Tickets out the Door
- □ Electronic communications (D2L & UCR e-mail) between myself and Kellie that pertain to the course

Educational Gymnastics

- □ Lesson Plan
- □ Peer Instruction observational notes/instructor feedback
- □ Instructional Effectiveness Reflection
- □ Website Review
- □ Resource Manual Entry
- □ Unit Plan
- □ Observational notes by Kellie
- □ Observational notes by an outside observer
- □ Tickets out the Door
- □ Electronic communications (D2L & UCR e-mail) between myself and Kellie that pertain to the course

Territorial Games

- □ Lesson Plan
- □ Peer Instruction observational notes/instructor feedback
- □ Instructional Effectiveness Reflection
- □ Website Creation
- □ Assessment PPT/Prezi
- □ Tickets out the Door
- □ Electronic communications (D2L & UCR e-mail) between myself and Kellie that pertain to the course

_____ _____

Signature of participant Date

I would like to be informed of the study results. I would like to be contacted by either
E-mail: _____
OR
Surface mail: _____

Researcher's signature: _____

I have explained the study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is being involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

_____

Kellie Baker (Ph. D. Candidate)
August 21, 2014