Warming Up to Race: Exploring Foucauldian Inspired Coaching Practices in Swimming through Coach Development

By

Nathan Kindrachuk

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Faculty of Kinesiology, Sport, and Recreation

University of Alberta

Abstract

Currently, sport science is the dominant body of knowledge informing coach development, coach education (Cassidy, Potrac, & McKenzie, 2006; Cushion & Nelson, 2013; Jones & Turner, 2006; Piggott, 2012), and coaching research (Cassidy, Jones, & Protrac, 2009; Denison, 2007; Gilbert & Trudel, 2004**)**. Research has shown, however, that sport science content from coach education courses can frequently be considered inappropriate for coaches' actual contexts, which can be described as "messy realities" (Piggott, 2012). To learn how to address some of the challenges I experienced in the "messy reality" of my coaching context, I undertook a coach development process that was informed by Michel Foucault's (1995) disciplinary techniques and instruments. My goal was to problematize my coaching practices using a number of Foucault's concepts in order to make meaningful changes to my practices. More specifically, this thesis explored how, with a Foucauldian mindset, I planned and implemented: (1) training session warm-ups, (2) in-season competition warm-ups, and (3) peak competition warm-ups.

My thesis addresses two issues discussed in the academic coaching literature. The first is that it provides a detailed account of my experience working with an academically informed mentor, my coach developer. My coach development process was unique because it involved a formal mentorship process, while most current coach development processes are coach education courses. The second issue in the literature that my thesis addresses is how my coach development process was guided by social theory (a novel approach to coach development) instead of sport science knowledge or normalized swim coaching practices.

This thesis is located in the poststructuralist research paradigm. As I undertook an eight-week coach development process with my academically informed mentor, I recorded two types

of field notes (Angrosino, 2007). The first were coach development field notes that included my observations from my meetings with my coach developer. The second were poolside field notes that focused on my experience implementing changes to warm-ups during my coaching practice. In my coaching context, I worked with Canadian high school swimmers who competed at a national level. My Foucauldian analysis (Markula & Silk, 2011) focused on providing thorough links between theoretical concepts, and themes observed in my two types of field notes.

Seven aspects of my learning from the coach development process were important findings from this thesis. First, my experience in the coach development process was consistent with North's (2010) research of one-on-one coach development processes as I gained confidence, and improved my planning skills, communication skills, and reflective skills. Second, during the coach development process, I learned that the daily context that I coach in greatly impacts my practice. Third, as I made changes to my practice as a part of the coach development process, I experienced high levels of stress when I perceived my credibility to be threatened. These moments occurred when sport science knowledge that I valued was challenged. Fourth, there were moments that I observed my own docility and docility in the athletes that I coached. Fifth, these challenging docile-making moments occurred most during times when I examined swimmers during competition warm-ups. Sixth, there were moments where I observed that the coaching modifications made as a part of my coach development process helped improve swimmer performance. Seventh and lastly, throughout the coach development process my relationship with sport science knowledge changed. Rather than relying wholly on specific concepts and taken-for-granted sport science concepts, I embraced the "messy reality" that I practice in and I also considered social perspectives when planning and implementing warm-ups.

This thesis may impact researchers who study coaching using social theory as well as show how theory can be used to improve coaching practice.

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1.0 Introduction

Every training session that I coach begins the same way. I gather swimmers around the white board on the side of the pool to explain the purpose of the upcoming training session and the warm-up set that begins the session. My explanation includes a focus on our group's training plan in the current week of training and how it fits with the seasonal training plan, which helps prepare my swimmers to perform their best at upcoming peak competitions. Further, I explain how the warm-up (usually 30-45 minutes) connects with the technical goals of the training session and the main set of the training session. The warm-up, technical goals, and main set are the aspects of training sessions that are always present in my program consistent with conventional swim coaching practice.

I have adopted a consistent routine when it is time for my swimmers to enter the pool. After my explanation of the warm-up at the whiteboard, using the digital pace clock on the wall, I yell, "on the top!" This indicates to the swimmers that I expect them to begin their warm-up set precisely when the numbers on the clock change from :59 to :00. As the seconds count closer to :00 I yell, "Ready" on the :58, and "GO!" on the :59, to signal my swimmers to enter the pool and to start warm-up. Usually, my swimmers dive in and begin their warm-up when I start them, but inevitably some swimmers are hesitant. They stare at the water, sometimes for two to three minutes, dreading the cold transition into the pool. This makes me anxious and stressed. How can I be considered an effective coach if the athletes are not following my plan, including how they begin their practice? After all, it was my National Coaching Certification Program (NCCP) training that explained to me how my swimmers must use time efficiently and achieve the technical and physiological goals in training that I have determined (Swimming Canada, 2013; Swimming Canada, 2016).

The struggle I experienced on the pool deck when swimmers began their warm-ups late, and the pressure I felt to adhere to NCCP and Swimming Canada coaching practices led me to question – what is wrong here? Through my undergraduate course work I was exposed to the idea that problems in sport experienced by athletes and coaches may be social issues not related to sport science. This coursework helped me reframe how I think about challenges in my coaching context. I learned how to reflect on my experiences through a socially oriented lens that I had not been exposed to through NCCP and Swimming Canada coach education materials. Since I was able to consider my experience starting warm-ups framed as a socially oriented coaching issue, I sought coaching literature that explores the social dimensions of performance sport. In one of my courses, I was exposed to coaching research that utilized concepts from the work of French philosopher, Michel Foucault. These concepts were called disciplinary techniques and instruments, and were detailed in Foucault's book: *Discipline and Punish: The Birth of the Prison* (1995).

This literature indicated that coaching in controlling ways through a coach's use of space, time, and movement, can have negative impacts on athletes, their abilities, and their performances including disengagement, dropout, and burnout (Denison, 2007; Lang, 2010; McMahon, Penney, & Dinan-Thompson, 2012; Rinehart, 1998). In addition, these disciplinary techniques and instruments can restrict coaches' abilities to be creative, innovative, relaxed, and move outside dominant practices in coaching (standard coaching behaviors). When I reflected on the way that I managed my swimmers in the context of the warm-up, I realized that I was micro-managing the bodies of my athletes when they entered the pool. I controlled in detail the space that their bodies occupied, the time in which their bodies moved, and the different ways their bodies moved through the water. Following my exposure to Foucauldian coaching literature and

to further understand the potential impacts of my coaching practices, as part of my completion of a graduate degree, I endeavored to coach with a consideration of the way I use disciplinary techniques and instruments both to benefit my swimmers and myself. Given my desire to expand my coaching knowledge, my interest in Foucauldian coaching literature, and the coaching position that I held, this thesis explores how I learned to implement Foucauldian concepts in my swimming coaching practice through a coach development process.

The purpose of this thesis is to improve my coaching practices in the context of swimming warm-ups by facilitating my learning through a coach development process. My goal through the coach development process was to problematize and think critically about my coaching practices and then to make meaningful changes to my practices using Foucauldian theory. My new coaching practices were designed to impact athletes positively by providing them with training that they needed to be successful in the pool without limiting or constraining them through the over use of disciplinary techniques and instruments. Through these practices, athletes could be positively impacted by gaining awareness of their bodies, improving their decision making skills, and increasing their engagement in swimming (Denison, Mills & Konoval, 2015; Mills & Denison, 2013). In addition, the coach development process helped me learn how to coach in ways that improved my understanding of what it means to be an effective coach and to explore coaching in ways that were previously restricted for me. Therefore, while it is logical to seek changes in athletes during any coaching intervention, the focus of this thesis is instead on my learning to work with Foucauldian concepts and evaluating what happens primarily through what I know and what I experience as a coach. Subsequently, this thesis presents an analysis of my experiences and my learning during the coach development process.

1.1 Significance

This research is significant in two ways. First, it contributes to the body of knowledge that can help coaches improve their approach to coaching swimming. More specifically, it contributes by using Foucault's understanding of the presence and activity of discipline in a high-performance swimming program to reconsider the impacts of implementing traditional warm-up protocols. When the findings of this thesis are shared with coaches, they can consider how they plan and implement warm-ups from a new perspective that gives them a social lens to examine their coaching. Second, this thesis contributes by exploring the use of a fluid, dynamic, and theoretically informed coach development process that addresses many of the shortcomings outlined by researchers when evaluating Provincial Sport Organization (PSO) and National Sport Organization (NSO) coach education and certification programs (Cushion, Armour, & Jones, 2003; Cushion & Nelson, 2013; Gilbert & Trudel, 1999).

In what follows, I present my thesis. The second chapter provides the foundational literature review that contextualizes the social theory based approach to my coach development process. The third chapter includes the methods I undertook and the paradigmatic assumptions underpinning this study. The fourth chapter provides an analysis of the empirical material I collected. Lastly, the fifth chapter concludes the thesis and provides the reader with potential future directions.

2.0 Review of Literature

The following chapter provides the context and rationale for this thesis based on literature examining sport coaching. Three main sections of this literature review are presented. The first section describes the topics of coach development and coaching practice. It explains how my coach development process can be used to address shortcomings related to the dominance of current sport science knowledge (psychological, physiological, and biomechanical disciplines) in coach development and coaching practice, and how social science knowledge is not currently used in these settings. The second section of this literature review explains how social theory can be used to improve coaching practices, more specifically warm-ups. A rationale for the use of Foucauldian theory is outlined. As well, Foucault's disciplinary techniques and instruments are explained, and applied to my coaching context focusing on warm-ups with support from other Foucauldian coaching research. The third section of this literature review introduces my research question.

2.1 Coach Development and Coach Education

Prior to a discussion of research that examines coach development and coach education critically, I provide a definition of the concept of coach development. Mallet, Trudel, Lyle, and Rynne (2009) described coach development as "an all-encompassing term that refers to the process leading towards enhanced expertise" (p. 325). In other words, coach development is a broad concept that can include a variety of activities in a variety of contexts that facilitate coaches improving their practice. This could include mentorship, practical coaching experience, formal post-secondary education, and sport specific coach education courses. Mallet et al. (2009) also described that, "learning occurs from accessing a range of opportunities (informal to formal). In an attempt to support this learning, coach education systems around the world have

been developed and are in a constant process of renewal and reconstruction" (p. 325). These coach education courses have been described as formal learning opportunities that are usually in the format of weekend courses, offered by provincial or national sport organizations to provide coaches with accreditation, certification, and professional development opportunities that are assumed enhance their practice (Mallet et al., 2009).

Since coach development is an all-encompassing concept, researchers have chosen to be more specific in their approaches to investigate effective coach development strategies. Some examples that focus on psychological perspectives include Trudel, Culver and Werthner (2013) who explored constructivist approaches to coach learning in an effort to support new coach development strategies that provided more opportunities for coaches than weekend certification courses. Additionally, Abraham and Collins (1998) utilized cognitive psychology principles to attain a greater understanding of expert coaches and proposed a development plan to help coaches improve. From a socially oriented perspective, Gilbert, Cotê and Mallet (2006) studied the development pathways of successful coaches and determined that coaches in different types of coaching contexts developed in different ways.

Coach development strategies, particularly through universities and coaching research (Cassidy, Jones, & Protrac, 2009; Denison, 2007; Gilbert & Trudel, 2004) as well as coach education courses (Cassidy, Potrac, & McKenzie, 2006; Cushion & Nelson, 2013; Jones & Turner, 2006; Piggott, 2012), currently place a high value on sport science knowledge while other knowledge is typically less valued. Social science coaching research is less frequently published or utilized by international, national or provincial sport organizations even though it has potential to inform theory led changes to coaching practice (Cassidy et al., 2009; Denison, 2007). As indicated by its reliance on sport science knowledge, coach development has become

overly technical (Swimming Canada, 2016; Swimming Canada, 2013) and assists in the perpetuation of a sport system focused on reproducing normalized coaching practices that over represent sport science concepts (Piggot, 2012)

The focus on sport science knowledge in coach development and coach education is related to the way that sport has developed over time. Denison, Mills and Jones (2013) described that throughout sport's history, knowledge that has focused on maximizing efficiency has been favored. They explained that this focus is rooted in the changes that Western nations experienced during the period of industrialization when workers were expected to operate in repetitive, efficient, and mechanical ways. In a sporting context, the use of physiological, biomechanical, psychological, and tactical knowledge can frame athletes' bodies in a similarly mechanistic way; "…the discourse of modern sport is embedded in a performance pedagogy that is based on scientific functionalism. Here, the body is viewed as a 'machine', one that can be developed and improved through appropriate exercises and training regimes" (Prain & Hickey, 1995 as cited in Cassidy, Jones, & Potrac, 2009, p. 118). Consistent with the mechanistic view of athletes and bodies described in current coach education materials (Swimming Canada**,** 2013) and in coaching literature (Williams & Manley, 2016), researchers have provided specific criticisms of coach education courses that are discussed in the next section.

2.1.1 Critiques of Coach Development and Coaching Practice

As previously described by Mallet et al. (2009) coach education courses are important aspects of provincial, national, and international coach development programs. Despite the intent to support coaches, weekend coach education courses are often viewed by coaches and researchers as limited and not useful (Cushion & Nelson, 2013; Mallet et al., 2009; Nelson, Cushion & Potrac, 2013; Piggott, 2012). These courses are very important because regional and

national sport organizations require coaches to attend them to gain accreditation and/or certification and maintain or progress to the level at which they practice. This coach education system emphasizes the importance of course assessment of coaches (Mallet et al., 2009). It is a logical assumption then, that coaches would be less likely to challenge the format and content of coach education courses since their coaching positions and potentially their livelihood is dependent on the outcome of course assessments (Cushion & Nelson, 2013).

The content that national sport organizations (NSOs) include in coach education courses is predominantly technical sport science based knowledge (Australian Sports Commission, 2016; Coaching Association of Canada, 2016; Sport Coach UK, 2016). In a Canadian swimming context these courses focus on technical swimming analysis and seasonal or yearly training plans (Swimming Canada, 2013). These programs have been critiqued by researchers who emphasize the importance and effectiveness of other informal or non-formal types of coach education such as mentorship, actual coaching experience, and conversations with other coaches (Cassidy, Potrac, & McKenzie, 2006; Cushion, Armour & Jones, 2003; Cushion & Nelson, 2013; Piggott, 2012). In other words, coaches learn in settings other than coach education courses, and these settings are very valuable to their development.

Another criticism by researchers of coach education courses is that overly technical knowledge may not be relevant to a coach's practice. Gilbert and Trudel (1999) examined the experience of one hockey coach in Canada's National Coaching Certification Program (NCCP) level two hockey theory course, which they used to assess the value of the course. One of the main critiques of the course from the coach was that the course materials were not reasonable or applicable to his specific coaching context:

One of the frustrations I have is that in order to do what that course and other courses

> have told me I should do as a coach, I need about four practice hours a week... I will not get that. These kids are not at the level and expertise and commitment to their sport that they are willing or even able to do that. They are 13-year old kids going to school (Gilbert & Trudel, 1999, p. 247).

Other researchers have also emphasized the impracticality of technically focused coach education courses, since they are inevitably decontextualized in the coach's actual practice setting (Cushion et al., 2003; Cushion & Nelson, 2013).

Further, Nelson et al. (2013) worked from a sociological perspective and considered the perspective of 82 UK coaches in a variety of sports who averaged 23 years of experience and had attained the highest level of certification available from national governing bodies in their respective sports. The coaches indicated that they desired to influence the content of coach education courses. They wanted courses to provide new knowledge that had practical applications to their coaching practice. Additionally, they wanted knowledge to be shared through discussion and personal experiences, which should not necessarily be limited to a discussion between coaches in one particular sport.

Another sociologically informed critique of coach education courses by Piggott (2012) examined the relevance of UK coach education courses by applying the Foucauldian theories of governmentality and the power/knowledge relationship to the responses of 12 coaches. He discussed the idea that national sport organizations could be impeding coach professionalization, which he explained by using a closed circle hypothesis. This concept illustrated restricted sharing, or lack of sharing, of knowledge between different groups, that limits sharing of new knowledge while perpetuating specific types of a "gold standard model" in coaching (Piggot, 2012, p. 539). Coaches interviewed in this research, who had taken coaching courses by larger

national sport organizations with higher budgets, described their course experiences as more rigid and dogmatic, than coaches who took courses from smaller national sport organizations with lower budgets. A swimming course that was provided by a high budget national sport organization was described as inflexible and strict (Piggott, 2012). In the context of swimming and other high participation sports, coaches often experienced self-doubt and felt frustrated, resigned, and fearful in response to these rigid coach education courses that Piggott (2012) argued hardly supported coaches as they prepared to work in the 'messy reality' of their practice.

Research that described and critiqued coach development processes focused on the dominance of the overly technical nature of coach development and coach education courses. A focus on technical knowledge is also prominent in literature that discusses coaching practice. In their literature review of coaching research that included over 610 academic research publications, Gilbert and Trudel (2004) found that the majority of the coaching literature emerged from sports psychology oriented journals with general physical education, dance, sport management, and physiology focused journals all publishing more coaching research than sociologically oriented journals. They also found that 80% of publications were guided by quantitative methods and an objective epistemology. They observed that the goals of researchers were to understand what coaches do, and they also found a shift more recently of researchers focusing on understanding why coaches do what they do.

Despite the research findings revealed by Gilbert and Trudel (2004) showing the high focus on sport science knowledge in coaching research, multiple researchers have critiqued this dominant perspective and emphasized that coaching is much more than a technocratic activity (e.g., Cushion, Armour, & Jones, 2003; Cushion & Nelson, 2013; Cushion, Nelson, Armour, Lyle, Jones, Sandford. & O'Callaghan, 2010). In fact, many sociologically informed coaching

researchers describe the actual act of coaching as a complex and messy reality (e.g., Cassidy et al., 2009; Jones & Turner, 2006; Piggott, 2012). This 'messy reality' is something that cannot be accounted for by coach development strategies that only include physiologically, biomechanically, and psychologically oriented research (sport science literature). These researchers actively advocate for the value of social theory to be used to critique and inform coaching practices. Brief examples of critiques from sociologically informed coaching researchers are included in the following portion of this chapter. They outline some of the problematic effects of technocratic sport science oriented coaching practices including: goal ambiguity between coaches and athletes, perceived expertise and social context in coach hiring, negative impacts of technology on athlete experiences, and negative impacts of coaching on athlete performances.

Goal ambiguity between coaches and athletes: Jones and Wallace (2005) outlined how a purely rational approach to coaching, including a focus on linear progressions, periodized planning, and technical skills, is unsuitable within the actual contexts where coaches work. The authors used management research to problematize psychologically informed coaching research by focusing on the ambiguity between coach and athlete goals. They stated that, on a surface level, athletes might agree with their coach's goals; but in reality, they have varied motivations that do not likely line up with the goals of their coach. This dynamic creates discontinuities in the coach and athlete dyad as they approach tasks like warm-ups, training, competition, and recovery that inevitably add a layer of complexity to their relationship and could negatively impact the athlete's ability to follow a plan designed by his or her coach. Further, they explained that conceptualizing coaching as orchestrating is a more realistic way to think about the coaching process. Jones and Wallace (2005) emphasized that orchestration "provides an underpinning for

practical prescription advocating that coaches should focus on enhancing these possibilities through learning how to cope with relative uncontrollability, incomprehensibility, contradictory values and novelty as normal parts of everyday coaching life" (p. 128).

Perceived expertise and context in coach hiring: Wagg and Ugra (2009) described the importance of considering more than technical skills when hiring coaches. They explained that the head coach of the Indian national cricket team from 2005-2007, Greg Chappell (a former Australian cricket star), was hired for his technical knowledge and former international experience. Chappell approached his role as an expert authority on the sport and focused his efforts on improving the players' technical and tactical skills as though they were in an Australian context. Despite the technical expertise that Chappell brought to his position, his disregard for the social aspects of coaching, such as the cultural differences between India and Australia, undermined his ability to form functional relationships with athletes and achieve successful performances. The authors also indicated that currently in the international cricket community many nations are hiring staff for major leadership positions based on the perceived value of technical cricket knowledge without considering the unintended consequences, potentially social, that might occur.

Negative impacts of technology on athlete experiences: Williams and Manley (2016) found that an overreliance and over emphasis on the use of technology to quantify players, their behaviors, and tactical coaching decisions had negative effects on some players. This included a belief held by players that the coaches could manipulate statistics to defend any decision that they wanted to make. Players also felt that they were always being watched and they had the sense that they were unfairly assessed based on numerical data rather than other ways to evaluate their performances. The coaches' focus on quantification led to the posting of charts and

statistics publically that inevitably forced athletes to be compared to one another in contexts that were previously not comparable – causing animosity and frustration amongst team members. It is not directly stated by the researchers that performances of the athletes were negatively impacted by the over use of surveillance techniques from their coaches; however, one possible interpretation is that coaching behaviors negatively impacted team dynamics which could potentially have impaired performance.

Negative impacts of coaching on athlete performances: The most important outcome from coaching practices rooted in rational technocratic discourses is that they can actually have negative impacts on performance. Denison (2007) problematized his past coaching practices through a narrative description of a former athlete's underperformance. He started by explaining that coaches in distance running usually rely on sport science 'tools' (psychology, biomechanics, physiology etc.) to understand underperformances. Next, and most importantly, he used Foucauldian theory to explain how his 'taken-for-granted' coaching practices, which relied on the disciplinary nature of these sport science tools, could be understood as an explanation for his athlete's underperformance. Denison (2007) used social theory to provide an explanation for the underperformance of his athlete, showing that alternative perspectives to the dominant sport science disciplines could be valuable in sport performance discussions. To further highlight how technocratic knowledge could be reconsidered in coaching practice and support coaches thinking differently when athletes are underperforming, Denison, Mills, and Konoval (2015) posed the following questions:

> ...instead of the athlete being the 'problem' in these cases maybe part of the problem concerns the formation and application of coaches' knowledge of how to coach (Denison, 2010a, 2010b)? As a result, rather than coaches questioning their athletes' character,

> commitment or confidence when problems arise, maybe they should question their own methods and practices? (p. 2).

These questions point to the authors' critical assessment of how coaching knowledge is formed, and if coaches are truly aware of the implications of their practices. Denison, Mills, and Konoval (2015) were not criticizing individual coaches, rather they were criticizing the way that some knowledge is valued more than other knowledge in sport. As demonstrated above, practicing coaches and coaching research are greatly influenced by dominant sport science knowledge. One of the ways that this knowledge is perpetuated as dominant is through coach development processes.

The first section of this literature review showed that sport science knowledge is dominantly informing coach development, coach education and coaching practice when compared to other types of knowledge. Researchers have explained that sport science content from coach education courses can frequently be considered inappropriate for coaches' actual contexts, which can be described as "messy realities" (Cassidy et al., 2009; Jones & Turner, 2006; Piggott, 2012). Taken-for-granted technocratic coaching practices were also discussed and problematized. Most importantly, a discussion of how coaches understand and perpetuate underperformance from their athletes through the use of taken for-granted-practices was facilitated by research using Foucauldian theory. Based on these shortcomings, I embarked upon a different type of coach development learning opportunity as part of my thesis.

2.1.2 Gaps Addressed by this Thesis

The research reviewed in the previous section that describes and critiques current coach education and coach development processes was used to help inform my coach development process. More specifically, this research helped identify the gaps that my thesis addressed in the

literature. My thesis addresses two issues and therefore is unique for two reasons. The first reason is that the process I undertook to help improve my coaching practice involved working with a well-informed mentor. This process, which I describe as my coach development process, was very different than most coach development opportunities because of my mentor's role in my coaching and decision making. Our one-on-one communication, consistent face-to-face meetings, and focus on the specific issues I faced in my coaching context brought a level of depth to my learning that undoubtedly exceeded a weekend coaching course in a classroom with a ratio of one learning facilitator to twenty-five coaches. Further, my coach developer had eight years of coaching experience in endurance running (which is similar to swimming) and has researched coaching for several years.

When considering the best way to implement my coach development process, I referred to a study that provided findings that can be used to help guide coach development processes. North (2010) completed semi-structured face-to-face interviews with 46 coaches. North used basic quantitative techniques to analyze simple descriptive data and used a 'units of meaning' approach to analyze the more complex experiential and attitudinal data. No specific theoretical framework was utilized to aid in the selection or discussion of themes through the analysis process. Additionally, coach development officers (staff hired by the United Kingdom Government to support the development, education, and effectiveness of practicing coaches as a part of the "Coaching Project" through one-on-one support and strategic initiatives) did not support practicing coaches by using any specific knowledge, theories, or philosophies.

The perspectives of coaches in North's (2010) study were valuable because they worked closely (through one-on-one mentorship) with the 45 coach development officers. North focused on describing detailed information about the coach developer-coach relationship, which was

most commonly longer than two years at the time of the interview process. Coach developers were perceived as particularly useful because they could act as a sounding board that appreciated the coaching context in question, but they were not distinctly tied to the setting through their employment or other relationships. Further, coaches felt that they were able to improve their practice through an increase in confidence, planning skills, communication skills, technical skills, reflective skills, and the opportunity to observe other coaches. The coaches involved greatly valued one-on-one time with coach developers because they perceived this time as the most helpful when improving their practice. One point of feedback from coaches about the coach development program was that they wanted more one-on-one access to coach developers in the future. North's findings and the importance of context specific changes to practice helped me inform my coach development process in multiple ways that are explained in greater detail in chapter three. Importantly, I was able to benefit from the findings of North's study while working with a coach mentor.

The second reason that my coach development process and thesis are unique, is because they were guided by social theory. My coach development process involved gaining an understanding of the implementation of coaching practices that were planned with a consideration of Michel Foucault's disciplinary techniques and instruments. This approach to improving my practice helped me deal with my 'messy reality' (Piggot, 2012) by acknowledging the specific context in which I practiced. Further, it improved the mentorship process that I undertook with my coach developer because our discussions were guided by specific concepts that challenged my taken-for-granted coaching assumptions. To emphasize the value of this focus on social theory, the next section of my literature review examines research that has mapped, critiqued and applied Foucault's concepts of disciplinary techniques and instruments to

coaching. These concepts are described in detail with examples from my experiences during the warm-up aspect of my coaching practice and Foucauldian coaching research.

2.2 Foucault in Coaching

Michel Foucault is thought of as one of the most influential philosophical thinkers since the early twentieth century, and his theories and ideas have been applied to many topics, contexts, and disciplines (Markula & Pringle, 2006). His work has been so important that he has impacted national and international policies, for example the abolishment of the death penalty in France. Though Foucault never published materials about sport or coaching, his focus on the relationships between the body, knowledge, and power, with the body being considered an important site for power relations, makes his work applicable in physical activity settings (Markula & Pringle, 2006). Another reason that Foucault's work is valuable in many contexts, including sport, is that his theories can be used to critique and problematize dominant knowledge. In other words, his theories are useful to examine the way that certain knowledge is privileged over other types of knowledge (Markula & Pringle, 2006). An example of this was described in the previous section: how sport science knowledge is dominant over social science knowledge in the context of coaching and coach development in universities, coach development processes, and coach education courses. For reasons such as these, researchers have taken Foucault's theories and applied them to the field of sport.

Within the umbrella of sport, researchers have utilized Foucauldian concepts (e.g., Heikkala, 1993). Coaching is a topic that has received much attention from researchers that use a socio-cultural lens. More specifically, many researchers have used Foucauldian theories to problematize and critique specific aspects of coaching, some of which include: basketball coaching practices (Shogan, 1999), gymnastics coaching practices (Barker-Ruchti & Tinning,

2010), cross-country running (Denison, 2007), coaches' planning practices (Denison, 2010b; Denison & Mills, 2014; Mills & Denison, 2013), national governing body mandated coach education strategies (Piggott, 2012), effective coaching practices (Denison, Mills, & Jones, 2013), strength and conditioning coaching (Gearity & Mills, 2012), coach reflection (Cushion, 2016), and ethical coaching practices (Denison & Avner, 2011; Markula & Martin, 2007; Pringle & Crocket, 2013). Of note, some researchers have applied Foucauldian theories to coaching in the sport of swimming. Lang (2010), Rinehart (1998), and Zehntner and McMahon (2014) used multiple Foucauldian concepts including hierarchical observation, or surveillance (a disciplinary instrument) to understand how swimming coaches can create athletes that have been normalized and who experience docility. These swimming specific articles are discussed in the following section that explains Foucault's disciplinary techniques and instruments in more detail.

Since Foucault's body of work was broad and included many theories and concepts, researchers have used specific Foucauldian concepts such as disciplinary techniques and instruments, which were published in one of his major works called *Discipline and Punish: The Birth of the Prison* (1995). These concepts were used to guide the changes I made to my planning and implementation of warm-ups in swimming through my coach development process. They are beneficial because they can be used to inform context specific changes to coaching practices through a coach's modification to the use of disciplinary techniques, instruments, and pedagogy (Denison, 2007; Denison, Mills, & Konoval, 2015; Gearity & Mills, 2012; Mills & Denison, 2013).

2.2.1 Disciplinary Techniques and Instruments

Foucault's (1995) disciplinary techniques and instruments were originally mapped in social institutions that included the military, hospitals, and schools. They can be used as tools

that can help people understand how they have come to perceive, feel, and exist in a specific set of power relations (Markula & Pringle, 2006). Markula and Pringle (2006) described the mechanisms of disciplinary techniques and instruments as forces that are used to "insidiously control and shape social life and subjectivities" (p. 16). They also described disciplinary techniques and instruments as a force that leads people to experience "a general discomfort that pervades life" (p. 16). Researchers have explained that the disciplinary techniques and instruments described by Foucault have great utility when implemented in the context of coaching (Denison, 2007; Gearity & Mills, 2012; Shogan, 1999). These techniques can be used to influence athletes' bodies in temporal, spatial, and organizational dimensions that allow carefully constructed practice plans to prepare athletes for complex and demanding physical and mental performances. While appreciating the utility of disciplinary power, Foucault (1995) theorized that an unintended consequence of the use of disciplinary techniques and instruments is that they can transform bodies in specific ways that may make them disengaged, passive, and apathetic, or to use his term: docile. In the context of sport, athletes are required to be engaged, confident, and critically aware of their surroundings to make important decisions and perform at their best. From a coaching perspective, docility is not a quality of athletes who are achieving their best possible performances. Thus, it is important for coaches to consider their use of disciplinary techniques and instruments and the unintended consequences of their applied coaching practice, which could be creating athletes that are docile (Denison, 2007; Denison et. al, 2013; Gearity & Mills, 2012).

Foucault (1995) theorized four disciplinary techniques and three disciplinary instruments that allow the essence of discipline to be realized. The four disciplinarily techniques include: the art of distributions, the control of activity, the organization of genesis, and the composition of

forces; and the three disciplinary instruments are: hierarchical observation, normalizing judgment, and examination (1995). These techniques and instruments should be considered together as having a combinatory effect on the bodies within a specific yet ever changing power relation. Further, each disciplinary technique can be implemented through the use of disciplinary instruments. As a coach, I use disciplinary instruments to implement disciplinary techniques during warm-ups when I interact with and manage athletes. In the following subsections, I outline Foucault's disciplinary techniques and instruments. First, each disciplinary technique is mapped and critiqued, using examples of coaching practices from my context of warm-up in swimming and Foucauldian coaching research. Next, a discussion of each disciplinary instrument is mapped and critiqued, using examples of coaching practices from my context of warm-up in swimming and Foucauldian coaching research.

2.2.1.1 The Art of Distributions

Foucault's concept of the art of distributions describes "the distribution of individuals in space" (1995, p. 141). In this way, bodies are made to occupy specific spaces in order to maximize efficiency when completing tasks. Foucault (1995) outlined four aspects of the art of distributions that include: how space can be organized through the use of enclosures, how space is partitioned within an enclosure, how spaces can be organized as functional sites, and how rank can be established through the spatial organization of bodies. An example of rank in warm-ups during my coaching practice is how swimmers progress from one lane (one rank) to another. It is very common in swimming culture for coaches to divide athletes into small spaces based on their speed, as demonstrated by the work of Lang (2010) and Rinehart (1998).

I usually divide swimmers into three groups when they warm-up. At each of the facilities where we train, the swimmers in lane three complete their warm-up on the slowest pace time,

therefore they have the lowest rank. Only after swimmers have demonstrated through their temporal performance in warm-ups that they are capable of moving up into the next lane (lane four), a faster lane, does their rank and lane change. This pattern continues through the three levels of rank and creates a normalized hierarchy of abilities within my training group. Foucault described that "for each individual, according to his level, his seniority, his rank, the exercises have a defining role and each difference involves specific exercises" (1995, p. 158-159).

Implementation of rank as a coach can be used to help explain how Foucault conceptualized power. Markula and Pringle (2006) explained that Foucault never saw power as an object that was held by some and not by others; he also rejected the idea that power was hierarchical, possessed, or static. Rather, Foucault considered power to be relational; that is, it is a force that works in subtle and coercive ways through the actions of one who has more power to direct the possible actions and decisions of another. It is in this way that I can direct athletes to follow a specific rank with my instructions, exerting a social force, but I do not physically control their bodies and the space that they occupy. Athletes can resist my use of rank and they can even leave the training session altogether if they choose.

Foucault argued that having individual spaces "made possible the supervision of each individual and the simultaneous work of all…It made the educational space function like a learning machine, but also as a machine for supervising, hierarchizing, rewarding" (1995, p. 147). This describes how the use of disciplinary techniques like the art of distributions can objectify bodies. Foucault's use of the word 'machine' is particularly problematic because athletes are not machines; athletes are humans. In swimming, our focus on efficiency and productivity in training can dehumanize athletes during their daily sport participation and lead to experiences of disengagement and docility.

2.2.1.2 The Control of Activity

Foucault's second disciplinary technique is called the control of activity, which refers to the temporal management of bodies in specific and dynamic power relations. Foucault (1995) theorized that the enforcement of this technique occurs through five methods including: time tables, the temporal elaboration of the act, the correlation of the body and the gesture, body-object articulation, and exhaustive use. These methods work in ways to constrain athletes' bodies that, "…establish rhythms, impose particular occupations, regulate the cycle of repetition…" (1995, p. 149). Gearity and Mills (2012) provided a striking example of time-tabling in their application of the control of activity to strength and conditioning coaches. They showed that athletes are managed to the minute, without any input into their schedules, even including social moments and consumption of post workout nutrition. Lang (2010) applied this concept to the pool setting and described elite swimmers completing their dryland warm-up and interval training sets without any instruction from their coach, and they managed their time to the second – since their practice was always organized around the use of a pace clock. Further, Rinehart (1998) described how swimmers are attached to temporal measurements. He explained that in some instances, after winning important competitions, some swimmers are disappointed because they had wanted to race faster than they did (Kottak 1989, as cited by Rinehart, 1998).

When I coach warm-ups, I frequently provide instructions and feedback to athletes in order to move their bodies in particular ways at specific times with the goal of increasing their efficiency. Foucault described this practice as the "temporal elaboration of the act" (1995, p. 151), which perfectly describes technical corrections made by coaches in swimming as an, "anatomo-chronological schema…The act is broken down into its elements; the position of the body, limbs, articulations is defined; to each movement are assigned a direction, an aptitude, a

duration; their order of succession is prescribed" (1995, p. 152). These rigidly prescribed temporal patterns can make bodies efficient, but also have unintended consequences. One of these consequences is that bodies can become normalized. In other words, all bodies must complete the same tasks the same way or they will be corrected. In reference to the temporal elaboration of the act, Foucault considered it as "a 'programme'; it assures the elaboration of the act itself; it controls its development and its stages from the inside" (1995, p. 152). The internal management of specific normalizing movements can be considered a disembodying experience for athletes. They are made to emulate the ideal body's swimming performance, but never to consider their technique based on how they feel, or based on their particular body. To achieve optimal performance, athletes need to have an awareness of the specific abilities of their bodies – a sense of embodiment. The use of rigid temporal patterning in warm-ups and training in general needs to be critically considered by coaches in order to reduce their dominating practices.

2.2.1.3 The Organization of Genesis

The third disciplinary technique that Foucault (1995) outlined was the organization of genesis. This concept can be described as the process of planning and organizing bodies in space and time. Foucault outlined four aspects of the organization of genesis. First, the division of the duration of training into successive and parallel segments. Second, each segment of training is planned in an analytical fashion. Third, each segment of training ends with an examination. Lastly, each progression is laid out as a series upon series of tasks that are specific to each individual's ability and rank. Shogan (1999) described a clear example of the first aspect of the organization of genesis. When coaching basketball, she used successive segments of practice with specific temporal endpoints to break down skill progressions and drills on the court – as we also do in the pool. More specifically, she focused on teaching the "building blocks of

basketball" (p. 31), which started with footwork and ball handling. Next the players would progress, in their preplanned practice times, to one-on-one maneuvers and then larger group game play scenarios. Barker-Ruchti and Tinning (2010) described a constant series of activities and progressions in women's artistic gymnastics training programs. Similar to Shogan (1999), each activity (e.g., beam) was split into smaller pieces that were managed by coaches as athletes' performances progressed.

When I coach training session warm-ups, I create series of series of skill progressions and temporal progressions. The simplest of these series of exercises is the times that I prescribe for swimmers to complete fifty meter repetitions of kick during training warm-ups. At the start of the season I provide swimmers with a slow, medium, and fast group of pace times in which they complete kick repetitions that are respectfully 65 seconds per fifty meters, 60 seconds per fifty meters, and 55 seconds per fifty meters. After four months, I make the pace times more difficult: 60 seconds per fifty meters, 55 seconds per fifty meters, and 50 seconds per fifty meters. In the final four months of the year, I improve the pace times in warm-up yet again, this time: 55 seconds per fifty meters, 50 seconds per fifty meters, and 45 seconds per fifty meters. The logic is that by progressing these pace times, my swimmers will get fitter (improving their aerobic endurance) throughout the season. However, this linear progression is not always consistent with the experiences and abilities of swimmers. Accordingly, these pace times improve at a rate that may be the same as the rate my swimmers improve, or do not improve. Therefore, the use of series upon series of exercises can negatively impact swimmers who are unable to meet the improved pace times throughout the season because they see themselves failing. Further, it is logical to impose a linear progression to improve swimmer fitness, but this linear progression does not account for the messy inconsistency of swimmer's abilities on a daily basis.

2.2.1.4 The Composition of Forces

The composition of forces is a combinatory system of dominance imposed by three specific instruments through temporal, spatial, and organizational techniques. Foucault characterized the composition of forces by describing four concepts that include: individual bodies acting as parts of a larger machine, the timing of each body is in synchronization with that of other bodies, the larger machine has a detailed system of command, and the movements of bodies coordinate with other bodies to produce a desired tactical outcome (1995). Foucault was critical of this mechanistic use of bodies and explains that, "Discipline is no longer simply an art of distributing bodies, of extracting time from them and accumulating it, but of composing forces in order to obtain an efficient machine" (1995, p. 164). An example of the composition of forces in warm-ups during my applied coaching practice is my organization of my training group. Prior to each training session and each warm-up, I organize my training group by orally dictating (from one sheet of paper that only I possess) a detailed practice plan, learning outcomes for the warm-up set and the specific spaces that each swimmer will occupy. In this example, each swimmer makes up a component of the multi-segmentary machine (Foucault, 1995) that strives to maximize the efficient use of space, time, and organization to produce as many fast swimmers as possible.

When bodies are considered as objects, they can become disembodied and disengaged. Foucault theorized that bodies in this position might respond by becoming docile, which has previously been described in this paper as a state that likely does not facilitate optimal sport performance. Researchers have described the composition of forces and its effects on athletes. Denison (2007) described how his understanding of an underperformance of an athlete he coached could be reinterpreted with Foucault's (1995) disciplinary techniques and instruments.

A combination of factors cited by Denison included: temporal, spatial, tactical, and confessional techniques that he used as the coach to try and support his athlete's performance. According to Foucault, his techniques may have influenced the athlete to experience a general malaise of docility that resulted in poor performance. Further, Barker-Ruchti and Tinning (2010) described many techniques and instruments of dominance used by coaches at an Australian Women's artistic gymnastics club. The use of these dominating practices included temporal, spatial, and organizational methods as well as the coach's management of interpersonal relationships and a general lack of compassion from coaches. Interestingly, five of the seven female gymnasts that were observed by Barker-Ruchti and Tinning had retired from their sport by the time the article was completed. This highlighted the negative effects that dominating coaching practices had on athletes; they were potentially so strong that the athletes left the sport completely.

Furthermore, Markula and Pringle (2006) described the relationship between a coach and an athlete as existing "within a specific power relation" (p. 35). This relationship demonstrates that power is dynamic and relational because, as Markula and Pringle (2006) explained, coaches have the ability to influence the actions of athletes in practice and competition settings, but athletes' decisions can also greatly impact the actions of their coaches. Markula and Pringle (2006) provided the example of an athlete discussing his or her potential sport retirement with his or her coach as a factor that would potentially impact the actions of the coach, demonstrating that though the coach-athlete relationship is unbalanced, athletes always have a reciprocal presence in the power relation. In addition to the four disciplinary techniques just described, Foucault outlined three disciplinary instruments that assist in the implementation of the techniques. The following three subsections outline Foucault's disciplinary instruments.

2.2.1.5 Hierarchical Observation

The first disciplinary instrument described by Foucault (1995) was hierarchical observation, or surveillance. Foucault described hierarchical observation as a "mechanism that coerces by means of observation" that allows those with power to influence and survey those with less power (1995, p. 170). Lang (2010) and Rinehart (1998) discussed this concept in the context of swim coaching in a pool setting. Lang (2010) presented the idea that a swimming pool can function in a panoptic fashion; a Panopticon is the prison design created by Jeremy Bentham, which was discussed in detail by Foucault (1995). This prison was designed for maximum efficiency, it has "a lit central tower from which a supervisor can view inside every cell, the panopticon allowed inmates to be observed but prevented them from seeing the observer or even being certain they were under observation" (Lang, 2010, p. 22). Similar to the Panopticon, the auditory and visual sensory deprivation while swimming in a pool allows for coaches to observe athletes, while athletes are unsure if they are actually being watched. Lang (2010) continued by describing the effects of this type of invisible surveillance, which includes prisoners making decisions that imply "self-surveillance" (p. 22). The prisoners, and swimmers, may internalize the panoptic gaze that they are subjected to and act as if they are always being watched – even when they are not. Lang (2010) emphasized that the power of surveillance, or hierarchical observation, cannot be overstated because of its insidious ability to internally effect the actions of those under observation.

When I coach warm-ups, my athletes never train without a coach present. They are constantly supervised. As a coach, I am better able to implement the spatial, temporal, and organizational constraints of the planned warm-up by using surveillance. This supervision allows me to enforce the art of distributions by correcting the order (rank) of athletes, and allows me to

motivate them by encouraging (rewarding) certain behaviors and discouraging (punishing) others.

2.2.1.6 Normalizing Judgement

Foucault's second disciplinary instrument is called normalizing judgement. This instrument consists of five aspects that include: a penal process that provides particular types of judgement for specific behaviors, punishments for those who do not complete expected or required tasks, the implementation of corrective punishments that close the gap in areas where individuals are underperforming, a gratification system that works in tandem with punishment to complete the spectrum of judgement, and the use of rank to hierarchize individuals based on skills and aptitudes (Foucault, 1995). An example of normalizing judgement in swimming warm-ups is when coaches enforce the technical correction of their athletes' temporal patterns in movement. More specifically, this could mean that swimmers are punished for not completing specific technical skills such as underwater dolphin kicks. Lang (2010) and Zehntner and McMahon (2014) described normalizing judgment as a prominent force in swim coaches' practices. Lang (2010) explained that coaches would actively punish swimmers who deviated from the rigorous controls set in place to manage their programs. Swimmers would receive verbal reprimanding if they failed to submit weekly training logs, attend mandatory weight measurements or attend practice late.

During warm-up in my applied coaching practice, the instrument of normalizing judgment is used to implement the control of activity through rewards and punishments (Foucault, 1995) based on the abilities of swimmers to achieve ideal normalized stroke techniques. Of course, while these corrections can improve swimming efficiency and performance, normalizing judgment "traverses all points and supervises every instant in the

disciplinary institutions compares, differentiates, hierarchizes, homogenizes, excludes… it *normalizes"* (Foucault, 1995, p. 183). In sport the goal is to win, to be an outlier who achieves success by standing out amongst all of the other competitors. To be normal is to be average, and almost certainly not to win in the context of swimming. It is important for coaches to consider swimmers' perspectives and individual bodies when working with them to determine the most effective way for them to swim – to be anything but normal.

2.2.1.7 Examination

From Foucault's perspective (1995), examination is a powerful disciplinary instrument that combines hierarchical observation and normalizing judgment. He described three important impacts of examination: it transforms the economy of visibility into the exercise of power, it introduces individuals into the field of documentation, and the impact of this documentation related to examination makes each individual a case. The examination is a "highly ritualized" process that "makes it possible to qualify, to classify and to punish" (Foucault, 1995, p. 184). According to Foucault, while examinations can allow for the efficient organization of bodies, it also differentiates and judges them. This disciplinary instrument has the potential to be particularly potent. Gearity and Mills (2012) described examples of examination through a constant measurement of physical and mental strength as well as anthropometric measures in strength and conditioning athletes. Essentially, in any context that can be measured, examination can take place.

Rinehart (1998) provided a striking description of one swimmer that he coached at the college level. From his perspective, she had developed significant anxiety about performing at competitions because each time she raced she would, "vomit her full stomach contents," and "weakened from each bout, she would swim poorly" (Rinehart, 1998, p. 40). His interpretation

was that over years her body was frequently scrutinized through technical and temporal examinations as well as other disciplinary coaching practices. Therefore, she had developed a strong aversion to being tested in the pool, which is an inevitable aspect of competition. This led him to coach in a way that focused on "life life life," rather than "technique technique technique" (p. 40) which was a troubling mantra he had been taught by his former swimming supervisor. The mantra, "technique technique technique," perpetuates the dominant technocratic knowledge in the context of coaching, sport, and more specifically in swimming. Rinehart's adjustment to his coaching based on the swimmer's response to examination in competition demonstrated his implementation of a Foucauldian inspired coaching practice. This type of modification to a normalized coaching practice is what inspired me when undertaking the Foucauldian inspired coach development process.

In the context of warm-ups in my training group, examination is frequently used at the end of each training session warm-up, in-season competition warm-up and peak competition warm-up to 'test' how each swimmer is doing each day. A common example of this is a structured and timed test of a specific swimming event that could include the 50m Freestyle or the 100m Butterfly or a less official event such as the 100m kick. While this practice can help swimmers understand their abilities each day, try new events, and work towards progressing their times, it can negatively impact their training and competition performance as well. When I frequently time (examine) swimmers to measure their progress, they are evaluated and compared to one another and to their previous best times – which can cause them significant distress, demonstrating the potency of this disciplinary instrument. It should be noted that sport is usually conducted by comparing the abilities of different people in a similar context. Therefore, examination is an inevitable aspect of coaching swimming and sometimes in warm-ups. This is

particularly true because of the focus on temporal outcomes of training and competitions in swimming. Given the inevitability of examination in sport and swimming, athletes must learn how to cope with some types of examination if they are to be successful.

2.3 Summary and Research Question

As shown above, Foucault's disciplinary techniques and instruments work together to form a productive system of dominance. The strength of using disciplinary techniques and instruments is that they can facilitate athletes to warm-up and train efficiently, particularly in a sport setting where bodies are required to complete detailed and difficult tasks in competitions that organize them in spatial, temporal, and organizational ways. However, coaches need to consider the unintended consequences that these disciplinary techniques and instruments can have on their athletes' bodies during warm-ups and in training. These techniques and instruments also impact coaches, causing them stress in their practices (e.g., my experience trying to get swimmers to start their warm-ups on time – see Chapter 1.0 Introduction).

Using this literature review as a foundation, my coach development process was guided by social theory. Foucault's theory of disciplinary techniques and instruments are very relevant because they can support coach development in specific coaching contexts, something that other coach development strategies, such as weekend coach education courses, lack (Cushion, Armour, & Jones, 2003; Cushion & Nelson, 2013; Gilbert & Trudel, 1999). Additionally, very few researchers have implemented Foucauldian inspired coaching practices in sport (Denison, Pringle, Cassidy, & Hessian, 2015). For these reasons, and to bring a focus to the consideration of social theory as a tool to inform social change (Denison, 2007), I undertook a coach development process that was informed by Foucault's disciplinary techniques and instruments to improve how I coach my swimmers during warm-ups.

To complete this coach development process, I asked one research question: *How is my understanding of how to plan and implement swimming warm-ups shaped and influenced by considering Foucault's disciplinary techniques and instruments through working with a Foucauldian-informed coach developer?* More specifically, this study explored how, with a Foucauldian mindset, I planned and implemented: (1) training warm-ups, (2) in-season competition warm-ups, and (3) peak competition warm-ups. The coach development process allowed me to impact warm-ups through a discussion that was led by theory and adapted to fit my context. In the methodology section of the next chapter, I outline the way I completed this thesis.

3.0 Methods

The coach development process I undertook was detailed and precise, while simultaneously being fluid, dynamic, and reflective. My coach developer and I explored different ways to address Foucauldian techniques and instruments in my coaching in the context of training, in-season competition, and peak competition warm-ups. Some important practical aspects of coach development processes, such as mine, were described as findings by North (2010). My coach development process addressed each of these aspects, which fit well with the poststructuralist ideas that inform this thesis. Consistent with North's (2010) findings, first, I worked with a coach developer with whom I have an established relationship. Second, my coach developer helped me address my coaching practice through planning and communication skills. Third, I ensured that I met frequently enough with my coach developer to be able to make meaningful changes to my practice. Lastly, I ensured that my coach development process was specific to my context.

This chapter addresses factors that influenced my coach development process and the research process. The first section outlines the research paradigm that underpins this thesis. The second section describes my coaching context, describing the sample that was selected for this project. The third section describes my coach development context and the procedures I followed when completing the coach development process. In the fourth section, I describe the methods used in this thesis; more specifically I discuss how my field notes were used to collect empirical material. Lastly, I discuss how I analyze my empirical material.

3.1 Research Paradigm

This study is located in the poststructuralist research paradigm, which means that it has been produced with multiple specific assumptions. First, the poststructuralist paradigm rejects

the positivist ontological belief in universal meta-narratives, which means that all people are independently experiencing the same singular reality (Avner, Jones, & Denison, 2014; Markula & Silk, 2011). Alternatively, poststructuralists argue that people experience life in dynamic, fractured realities that do not produce consistent universal truths. The second assumption is the relational view of power by poststructuralists, which means that power functions in fluid, dynamic, and sometimes subtle ways rather than as a top down hierarchical or dualistic force (Avner, Jones, & Denison, 2014; Markula & Silk, 2011). This is very important since poststructuralists view their research process as political with the aim of creating ethical social change; for example, when Foucault influenced French policy makers to abandon the death penalty (Markula & Pringle, 2006). Despite poststructuralists subjective view of epistemology, the last assumption of poststructuralists is the rejection of the humanist self. The humanist self involves the uncovering and understanding of a true self that is present in any context (Markula & Silk, 2011). Instead, poststructuralists argue that people are constantly shaped, influenced, and understand themselves through dynamic power relations related to discourses. The context in which we see ourselves defines our reality, meaning that in a different context our self-concept changes – and there is not necessarily one true self that can be uncovered or revealed. This means that an athlete's perception of him or herself changes as his or her athletic context changes and that a coach's perception of him or herself changes as his or her coaching context changes. A change in context could be the difference between one day of training to the next, an athlete or a coach gaining new knowledge, a coach trying new practices, or the difference between a training session warm-up and an in-season competition warm-up.

In keeping with the poststructuralist assumptions described above, my application of Foucauldian-inspired coaching practices to warm-ups was a fluid and diverse interpretation of

reality created with the support of my coach developer. Further, Avner, Jones, and Denison (2014) described poststructuralist research projects as mapping discourses that influence our understanding of the world, critiquing problematic effects from these discourses, and/or developing new practices to make change resulting from prior critiques. My research study is aimed towards developing new coaching practices specific to my coaching context that problematized my regular coaching practices as well as support the development of athlete engagement, awareness, and decision making. This was completed by applying a Foucauldian lens to my role as a coach, how I planned warm-ups, and how I implemented warm-ups. Poststructuralist ontological and epistemological assumptions informed every aspect of this thesis including the collection of empirical material, analysis of empirical material, representation of my research materials and my role as a researcher.

3.2 Sample

My coaching context included the swimmers I coached and the spaces where they trained and competed. The swimmers I coached consisted of seven males and seven females, who were 14-18 years old. I accessed these swimmers through my position as the Head Coach of a large community swim club in Western Canada. Most of these swimmers were qualified to compete at national level competitions and one swimmer was competing at international competitions. The sites for this research were five community pools. All of these sites included a 50m pool that was frequently partitioned into 25m segments. Two of the five facilities were used for competitions and three of the five facilities were used for training throughout the coach development process. Each facility had bleachers that allowed parents and other onlookers to view the pool setting during workouts and training sessions. This meant that the pool could be seen from any spot in the room, while swimmers were mostly submerged (their heads underwater ensured that they

could not hear or see any onlookers including their coaches), creating a panoptic environment (Foucault, 1995). Additionally, there were frequently other coaches from my swim club at the pool coaching different groups of swimmers or other aquatic user groups at the facilities. I was rarely alone with my training group at any of the training or competition facilities.

In addition to my role as the sole participant and researcher in this project, I was employed as the Head Coach of this swim club and I was the personal coach of the swimmers. In addition to coaching these swimmers, I was tasked with overseeing the daily operations of the swim club including managing pool bookings, swim meet entries, and many other tasks. As a coach in this context, I had six years of experience working with provincial, national, and international level athletes. I was male, 26 years old, and I had also spent 14 years training and competing as a swimmer in similar settings. This study took place for eight weeks during the main training and minor competition phases of the Canadian swimming season. Given the opportunity to collect rich data through my swim club coaching position, this coaching context was selected for my thesis. Further, it should be noted that while relatively static factors in the context of my coaching practice such as the facilities, the lane space, and our general schedule are consistent, each day at the pool was unique. The power relations present in each coaching session were influenced by temporal, spatial, organizational, and social factors that were different every day. As such, my thesis captured the dynamic factors at play based on the specific context in which I coached.

When framed through Patton's perspective (2002 as cited in Markula & Silk, 2011), I used purposeful theory-based sampling in selecting my coaching context. Theory-based sampling means that the likelihood of relevant concepts from the selected theoretical perspective is high in the context selected for the collection of empirical material. This means that I

determined that my position as a Head Coach allowed me to gain a particularly information rich account of my experience during warm-ups in the coach development process. This is true because my coaching context is enmeshed in the coaching culture of Canadian swimming. Prior to the start of this thesis, I contacted the president of the swim club to obtain a letter of support from the swim club to conduct this coaching development research thesis. Due to the self-reflective focus of my study, approval from an ethics board was not required. As such, I carefully and judiciously focused my study on the coach development process and my exploration of Foucauldian theory in my coaching. It was important to minimize my focus on athlete performance outcomes or specific responses to my coaching practices.

3.3 Procedure

As part of my coach development process, I met frequently with my coach developer, Dr. Jim Denison. Dr. Denison researches socio-cultural aspects of coaching and sport and has experience teaching many university courses, including sport science and social science topics. His research has explored Foucauldian concepts applied to sport topics including the coach/athlete relationship, ethics in coaching, power and coaching, and training methodologies. As a sports person, Dr. Denison was a high-level middle distance runner and he has seven years' experience coaching cross country running and middle distance running in the context of the US high school and collegiate athletic systems. Given the many similarities between middle distance running and swimming, Dr. Denison has a high level of understanding of practice planning and implementation, making him a well-suited coach developer given my coaching context. Additionally, Dr. Denison has a unique combination of credentials and experience that would be difficult to find elsewhere to carry out this type of Foucauldian oriented coach development process.

The coach development process involved weekly meetings for eight consecutive weeks. These meetings took place in his university office, and in a neutral public meeting room that allowed us to have uninterrupted conversations. During the first week, we began our conversation with a discussion about some of the challenges and constraints that I experienced in my coaching context which led me to focus on training session warm-ups. During our subsequent meetings, my coach developer and I followed a specific process. At the beginning of each meeting, I brought a summary of my field notes that included my reflections from a previously implemented warm-up plan that was informed through the coach development process. We discussed my reflections on my experience and our conversation helped me make connections between my coaching during the warm-up, my coaching context, and theoretical concepts. The meeting then progressed to a discussion of specific theory-based changes I could make to specific warm-ups in the future based on my most recent experiences. Following each meeting, I implemented the changes when coaching warm-ups and reflected on my experiences. Each week we met, we followed a similar process. This process was repeated for the entire eight-week period that I collected my empirical material. Further, seven of our meetings took place in person, while one took place over the phone although it followed the same process. As stated earlier, the only week that deviated from this process was the first week.

Based on the meetings I had with my coach developer, I made meaningful and specific changes to my coaching practices in three types of warm-ups: training session warm-ups, in-season competition warm-ups, and peak competition warm-ups. In developing these new warm-up coaching practices, my coach developer and I used concepts from Foucault's disciplinary techniques and instruments. Examples from each type of warm-up are included in this section. Typically, during training session warm-ups through instructions and feedback, I ensured that

athletes were moving in time with each other so they could efficiently complete the same set in our limited space (an example of the Composition of Forces). By problematizing my control of the way that swimmer's bodies are required to move in the same way as each other, the new training session warm-up allowed swimmers to make decisions based on how they experienced their own bodies. This allowed them to take leadership over their decision making and also to complete a different activity than their peers, potentially improving the quality of their warm-up (Coach Development Field Notes Week 2).

During in-season competition warm-ups, I controlled the spaces that swimmers occupied in the pool (an example of the Art of Distributions) to determine how far athletes had swam (so they could reach a prescribed volume) and to ensure that I could observe their warm-up and intervene as appropriate. By working with my coach developer, I reconsidered the importance of surveilling swimmers during their warm-ups. I let go of my need to control where swimmers completed their warm-ups, therefore I could not always overserve their warm-ups (Coach Development Field Notes Week 3). This allowed swimmers to swim the volume of warm-up that they thought was best for their bodies based on the race that they were preparing to complete. Additionally, this meant that swimmers could warm-up in the space that was most appealing to them, potentially avoiding any interaction with me.

Usually during peak competition warm-ups, coaches and swimmers become increasingly focused on performance outcomes. Accordingly, I typically would focus on establishing a clear timeline for my swimmers to prepare for their races (an example of the Control of Activity) that included their arrival time at the pool, a warm-up schedule, and time for them to relax before their race. My new coaching practices focused on eliminating a coach led plan that swimmers were required to follow (Coach Development Field Notes Week 6). Instead, swimmers had to

engage in conversations with me about how they were going to approach their competition schedule based on a plan they prepared. The precision of this new swimmer led plan was less specific and therefore helped break down the constraints imposed by the control of activity. Additionally, it allowed swimmers to try new strategies to prepare for races that they would not have previously had the chance to try. This gave them opportunities to learn about their bodies and performances in new ways. A summary of detailed changes that I made to my coaching practices in consult with my coach developer is included in Table 1.0 which can be found in Appendix A.

In keeping with a Foucauldian perspective, the coach development process was fluid, dynamic, and reflective. My coach developer and I decided that it was important to repeat specific activities in my coaching to have the most impact on my learning and my coaching practices (North, 2010). This meant that I repeatedly implemented my new practices in training session warm-ups even after the focus of the coach development process had begun focusing on competition warm-ups. Further, on multiple occasions my experiences coaching during warm-ups impacted the direction of our focus and the path of the coach development process. An example of this was that my coach developer and I began by focusing on Foucault's disciplinary technique called, the control of activity, during in-season competition warm-ups (Coach Development Field Notes Week 5). I had a powerful experience during a competition warm-up that helped inform the path for the last two coach development sessions. More specifically, I was astounded by the attachment I saw that athletes have to their times during race pace swimming in competition warm-ups (Poolside Field Notes Week 6). To address this, my coach developer and I shifted our focus to peak competition warm-ups and our focus was mostly on Foucault's disciplinary instrument of examination. The coach development process was as an open-ended

conversation discussing ways that I could impact my coaching to become less constraining of athletes by improving their engagement, awareness, and decision making skills.

3.4 Methods

To capture my experiences learning how to coach with less discipline during warm-ups and to capture my experience during the coach development process, I recorded field notes. Field notes have been traditionally used as an ethnographic tool to record the researcher's perspective as they participate in or observe their field of inquiry (Angrosino, 2007). Taking field notes was practical in my research context because I was able to actively participate in my role as a coach and to capture my experience immediately afterward by recording specific moments and experiences (Markula & Silk, 2011). I took field notes during the entire eight-week period when I had meetings with my coach developer and I implemented Foucauldian informed coaching practices. Angrosino emphasized the importance of keeping "structured and organized field notes" (2007, p. 41). Accordingly, I recorded two types of field notes and recorded them chronologically. The first type of field notes, coach development field notes, included my observations from my meetings with my coach developer. These notes focused on theoretically informed changes made to my planning practices of warm-ups. They also included discussions I had with my coach developer about my experiences implementing Foucauldian informed warm-ups. I also described my experiences working with my coach developer, which could help inform future coach development processes. The second type of field notes, poolside field notes, focused on my experience implementing changes to warm-ups during my coaching practice. I observed how I felt, thought, and acted as well as how I perceived the pool environment each time I implemented a planned warm-up discussed with my coach developer. These notes include my assessment of how easy, difficult, realistic, and challenging it was to practically 'coach with

Foucault' in the context of warm-ups. These observations, and reflections on my experiences coaching, informed the conversation about coaching that I had with my coach developer at each of our meetings.

3.5 Analysis

Due to the poststructuralist assumptions that underlie my entire process in this thesis, I emphasized the importance of using a subjective approach. I considered my own perceptions as I observed myself during the coach development process and during the times I spent coaching warm-ups. These perceptions have been considered in relation to Foucault's disciplinary techniques and instruments (Avner, Jones, & Denison, 2014). Further, through the collection of my field notes I considered my relationship with my coach developer as a relation of power. During this time, it was imperative that I was aware of the relation of power between myself and my coach developer as well as the relations of power between myself and the swimmers that I coached. As the coach, I considered the best ways to make decisions for my coaching practice while remembering that I am an active player in multiple relations of power (Markula and Pringle, 2006).

Consistent with Gore (2005)'s observation of Foucault's disciplinary techniques and instruments in the classroom, as I took both types of field notes, I linked them to specific Foucauldian disciplinary techniques and instruments. The dynamism of this thesis is reflected by the breadth of theoretical concepts (i.e., Foucault's techniques and instruments, docility, and Panopticon) that could have become a focus over the eight-week coach development process. This fluid process was appropriate and important given the poststructuralist ontological and epistemological assumptions underpinning every stage of the thesis. My field notes were detailed and theoretically specific to provide the best possible quality empirical material for analysis.

Following the collection of field notes, and in keeping with Markula and Silk (2011), my Foucauldian analysis focused on providing more thorough links between theoretical concepts, and themes observed in my coach development field notes, and my poolside field notes. More specifically, following the steps outlined by Markula and Silk (2011, p.109): first, I identified themes present in my empirical material. Second, I analyzed the themes by examining their intersections and discrepancies that led to the development of new themes. Third, these themes were connected with Foucault's disciplinary techniques and instruments, and previous literature. Specific concepts from Foucault's disciplinary techniques and instruments that informed the changes I made to how I coached warm-ups were decided through the coach development process. In the analysis of my field notes, I linked field notes that related to the concepts chosen through my coach development process. To stay connected to these concepts as I analyzed empirical material and connected themes to Foucault's disciplinary techniques and instruments, I frequently reread relevant sections from Foucault's *Discipline and Punish: The Birth of the Prison* (1995) as well as my coach development and poolside field notes. The goals of this analysis were to inform my ability to coach warm-ups in less disciplinary ways and to provide a theoretically informed account of my coach development process.

4.0 Results and Discussion

This chapter describes and analyzes my experiences throughout the Foucauldian informed coach development process that I undertook. As I completed the Foucauldian analysis of both types of my field notes, I found that multiple aspects of my experience during the coach development process could contribute to the representation of my empirical material in this chapter. More specifically, these included: my understanding of my coaching as my perspective changed throughout the coach development process, a description of Foucauldian inspired modifications to my coaching practices that were made in consult with my coach developer, and a thorough analysis of my experiences implementing these modifications in my coaching practice. These aspects of my experience are explored in three sections of this chapter. These three sections are ordered chronologically, consistent with the path taken during the coach development process. The order in which the coach development process took place was logical and progressively worked toward creating a larger impact on my perspective as the coach, and also on impacting moments that were meaningful to the performance of athletes.

The three sections are outlined as follows. The first section focuses on my experiences early in the coach development process, problematizing my coaching practices during training session warm-ups. This section also includes an analysis of my experience implementing modifications to my coaching practices in training session warm-ups in three areas: a focus on productivity, my concerns with credibility, and my perceptions of athletes as docile bodies. The second section focuses on my experiences mid-way through the coach development process, problematizing my coaching practices during in-season competition warm-ups. This section also includes an analysis of my experience implementing modifications to my coaching practices during in-season competition warm-ups in three areas: a focus on the importance of considering

contextual factors when coaching, my concerns with the implementation of normalized in-season competition warm-ups, and the idea that coaches can be and should be learning from their athletes.

The third section focuses on my experiences at the end of the coach development process during peak competition warm-ups. This section is structured differently than the previous two sections. First, I examine my experiences coaching at a peak competition. Next, I provide two areas of analysis that focus first on examining the anger and frustration I experienced when coaching during this peak competition, and second, my behaviors coping and coaching with these emotions. Following this, I provide a description of the modifications in response to these experiences that I developed in consult with my coach developer. Lastly, I include an analysis of my experience implementing these modifications in two areas: the potential performance impacts of coaching with Foucault, and some of the challenges of coaching with Foucault. This results/discussion chapter closes with a summary.

4.1 Reflections on Training Session Warm-Ups

Training session warm-ups in swimming are usually meticulously planned activities that are implemented and controlled directly by the coach. The coach's control of training session warm-ups can limit swimmers through spatial, temporal, organizational, and evaluative processes (Lang, 2010). Due to my experience and understanding of these constraints, I modified my training session warm-ups to address many of Foucault's disciplinary techniques and instruments in consult with my coach developer (Coach Development Field Notes Week 2). Making these changes to my planning and implementation of warm-ups in consult with my coach developer was consistent with North's analysis of coach development processes (2010). These modified training session warm-ups were implemented on three occasions throughout the

coach development process. The following analysis focuses on my first experience modifying my coaching during a training session warm-up.

The structure for this training session warm-up was somewhat contentious in the discussion between my coach developer and I, because I struggled to let go of the normalized structure that I imposed on swimmers during their training warm-ups. Through conversation, we reached a common understanding of how this warm-up should take place while respecting my perceptions of my coaching context as well as Foucauldian concepts informing the changes to my practice (Coach Development Field Notes Week 2).

The first training session warm-up that I implemented during the coach development process included multiple parameters. For example, these parameters included the space and time that swimmers were given to complete their warm-ups. I explained these parameters in the same place (at the whiteboard) and at the same time (two minutes prior to our pool booking) as I would regularly explain the warm-up set to my swimmers. The following description from my poolside field notes highlights the parameters I provided to swimmers in this warm-up:

> Swimmers were given 30 minutes to warm-up based on how their bodies felt that day. They were encouraged to significantly increase their heart rates, respecting the intended physical purpose of warm-up. Swimmers were not limited to only warming up in the pool, and as such there were no volume or intensity guidelines, expectations, or measurements. Swimmers were aware of the activities that followed the warm-up so they could best prepare for the subsequent activities in the training session. Lastly, I explained and reiterated to swimmers prior to completing the training warm-up that the purpose of the activity was to allow them to make decisions based on how they perceived their bodies in that moment (Poolside Field Notes Week 2).

Taking apart the normalizing process of discipline in training session warm-ups was what this training session warm-up aimed to do. Swimmers did not have to follow the same specific temporal or spatial requirements that they would regularly follow. Their bodies did not need to be organized in efficient ways in lanes, they did not even need to get into the pool. Without these constraints, individuals were not required to swim in time with each other; but rather, swimmers were able to move in ways that they determined were best for them in that moment. This training session warm-up was a rare opportunity for swimmers, given the highly prescriptive nature of typical training warm-ups in swimming.

My experience implementing my first modified training session warm-up demonstrated my attachment to sport science led coaching practices. During my first training session warm-up, the only other coach in the facility was another student of my coach developer, and she greatly appreciated the goals of the activity I had planned. Rather than being comfortable with her presence, I was very uncomfortable because I was worried about how my athletes would respond to the reduced constraints of this warm-up. I was surprised by this discomfort. For example, as I wrote in my poolside field notes:

> This tension, self-doubt, and anxiety feeling took me hours to shake off and completely impacted my perceptions as I coached. And I was in a safe setting – with a safe and familiar coach on the other side of the room. They [the swimmers] looked less productive, thus I felt like I was a worse coach today than during other training sessions (Poolside Field Notes Week Two).

One of the reasons that I interpreted that this training session warm-up was less productive than my swimmers' regular warm-up was because I was unable to track the volume/distance that each swimmer completed. The sport science knowledge that guided my

regular training session warm-ups was oriented towards objective measurements of volume, time, and intensity (Mujika, Chatard, Busso, Geyssant, Barale, & Lacoste, 1995). Without these overarching concepts to guide my coaching, I felt unstable. Upon reviewing my poolside field notes, I realized that despite the purpose of the activity being a reduction in constraints for athletes, I had counted the distance that a handful of swimmers completed because of my preoccupation with tracking training volume (Coach Development Field Notes Week Two). Upon reflection, it is no surprise that I had internalized dominant sport science knowledge through 15 years of exposure to high-performance swimming that emphasized the need to count volume and evaluate the training through the measurement of volume (Mujika et al., 1995). Still, this warm-up showed how deeply I had internalized the swimming culture's fixation with the measurement of training volume and how I am not always aware of how this internalization is guiding my decision making. I learned that I needed to become aware of my attachment to dominant sport science knowledge, and then to approach coaching warm-ups by thinking about both Foucauldian concepts and sport science concepts. This allowed me to be open to considering multiple perspectives when planning and implementing training warm-ups.

Another reason that implementing this training session warm-up caused me stress and anxiety was because I did not want to lose credibility with athletes who I had recently began coaching. Reflections from my poolside field notes explained:

> One of my main concerns during this training warm-up was that my athletes would think it was a waste of time and would question my coaching abilities. I think it was important that my athletes appreciated the purpose of this warm-up. However, during the warm-up I did not have confidence that they were thinking this way because I observed some

swimmers heavily structuring their own warm-ups and some swimmers appearing confused with blank expressions on their faces (Pool Side Field Notes Week 2). Similar to Jones (2006), who described his experience during a high stress coaching interaction with a soccer team he was coaching, my livelihood could potentially be impacted if my relationships with my athletes became too strained. It was imperative that I retained athletes because in previous seasons the swim club I work for had lost many swimmers to a competing neighboring swim club. In other words, if I lost credibility, I may not retain my coaching position because I could not retain swimmers. If Jones lost credibility, he feared that players would respect him less and would therefore perform worse.

The Foucauldian concept of power as relational can be used to better understand my struggle to maintain credibility in my coaching. As Markula and Pringle (2006) stressed, the coach-athlete relationship is unbalanced, but athletes always have a reciprocal presence in the power relation. Coaches do not yield unilateral force that can be used to make athletes complete tasks. Accordingly, my learning through the coach development process was that I can modify how I coach, and therefore also impact how I use power in relation to my athletes. However, regardless of how I position myself, athletes will always be active participants in our ongoing relation of power (Coach Development Field Notes Week 2).

The first time I implemented a training session warm-up during the coach development process, some swimmers were diligent throughout the 30 minutes they were given. They asked questions, used spaces other than the pool, and took their time to respect how their bodies felt (Poolside Field Notes Week 2). Other swimmers seemed as though they took the activity less seriously, but I observed that they still actively made decisions when warming up. Some swimmers were concerned about their training volume and training activities, these swimmers

completed a warm-up that closely resembled a regular training warm-up. I found this frustrating and troublesome, because I did not think these swimmers understood the goals of the activity: to improve their engagement, awareness of their bodies, and ability to make decisions relating to their participation in swimming. My perception of these swimmers is best represented through a quotation from my poolside field notes,

> I was frustrated with athletes who were unable to slow down and take time to listen to their bodies. They seemed overly concerned with counting metres, swimming at a specific intensity, and warming up in ways that are normalized in swimming. They did not focus on their bodies even though I clearly explained the purposes of the warm-up, to be engaged, to gain awareness and practice decision making, and how they relate to performance (Poolside Field Notes Week 2).

I described these swimmers to my coach developer during my first training session warm-up as docile because I perceived them to struggle to focus on their bodies (Foucault, 1995). My expectations for athletes to be skilled in their decision making, aware, and engaged in the activity were quite ambitious. Swimmers are not regularly encouraged to make very many decisions related to their participation in the sport (Lang, 2010; Rinehart, 1998). Further, my swimmers experienced Foucault's disciplinary techniques and instruments at the pool, at home, and at school. For as Foucault described, bodies that were subjected to discipline can be seriously impacted:

> Thus discipline produces subjected and practiced bodies, 'docile' bodies. Discipline increases the forces of the body (in economic terms of utility) and diminishes these same forces (in political terms of obedience). In short, it dissociates power from the body; on the one hand, it turns it into an 'aptitude', a 'capacity', which it seeks to increase; on the

> other hand, it reverses the course of energy, the power that might result from it, and turns it into a relation of strict subjection (Foucault, 1995, p. 138).

Additionally, Foucault explained, "that disciplinary coercion establishes in the body a constricting link between an increased aptitude and an increased domination" (p. 138, 1995). Through discussion with my coach developer following my implementation of this training session warm-up, I learned that it is my job as a coach to facilitate the performances of athletes who can masterfully complete efficient and demanding tasks while being minimally subdued by the use of disciplinary techniques and instruments (Coach Development Field Notes Week 3). Conversation with my coach developer about the first training session warm-up helped me understand that this is completed through gradual small changes that allow athletes to gain new skills, improve their awareness, increase their engagement, and facilitate them making decisions. Discussions like this demonstrated the value of a one-on-one coach development process that North (2010) described in his findings.

4.2 Reflections on In-Season Competition Warm-Ups

During the third meeting with my coach developer, I determined that I could link the concepts that I used when implementing training session warm-ups to the context of in-season competition warm-ups. This brought the purpose of my coaching interventions, improving the way I coach warm-ups by problematizing my regular coaching practices, closer to the competition context where athletes complete their performances (Coach Development Field Notes Week 3). Progressing from making changes in training session warm-ups to making changes in in-season competition warm-ups brought the coach development process to swim meets. I viewed this as an important step, because athletes achieve their best performances at swim meets, and my coaching at meets can impact their race performances. This section of the

analysis chapter explores my experiences coaching at a four session in-season (a training competition, as opposed to a peak competition) swim meet where my swimmers completed four competition warm-ups. To maximize the opportunity that this swim meet provided and to impact my swimmers in a meaningful way, during our third meeting, my coach developer and I discussed a strategy to guide my swimmers through a reflective activity about their warm-ups at this competition by using a learning outcome.

The day before the in-season swim meet, I explained the learning outcome I developed to my swimmers: "By the end of this weekend [after the swim meet] you will be able to explain to me the specifics of what you require during a warm-up to feel like you have reached your ideal state prior to the start of a race" (Poolside Field Notes Week 3). I wrote this learning outcome on the whiteboard during our last practice before the competition and took some time to explain my expectations to my swimmers. My communication about this reflective activity was more thorough and planned than my regular explanations of activities they complete in training, which was a goal of mine (Poolside Field Notes Week 3). In general, the purpose of the learning outcome was that athletes should be improving their awareness of their bodies and then making decisions based on their awareness during their in-season competition warm-ups. Accordingly, I reviewed the idea with my swimmers that coaching is teaching, coaching is not commanding or controlling athletes (Cassidy, Jones, & Potrac, 2009; Denison, 2007). I reviewed this idea because I wanted to give the swimmers space to make decisions based on their perceptions of their bodies.

During warm-ups at the in-season competition, similar to the training session warm-ups that I had previously implemented, the swimmers were not provided with specific training sets, repetitions, volumes or measurements. Informal conversations took place between my swimmers

and I about how to approach warm-up at individual times based on each athlete's racing schedule. Swimmers were encouraged to make decisions about how they warmed-up by considering how their bodies felt, the races that they were about to complete, and aspects of warm-ups that worked for them during training sessions and previous races. Additionally, I was always available to discuss any questions that swimmers had about how to complete specific aspects of their warm-up and how to manage the unique contexts of each warm-up during the competition. Following the competition, I met briefly with swimmers individually to discuss the specifics of what they perceived was the best approach to warm-up for them to reach their ideal state prior to performing. This reflective step in the process helped the swimmers understand how they perceived their bodies and the decisions they made throughout the swim meet, bringing the learning outcome to life. Ideally this activity helped swimmers become more aware of their bodies, better able to make decisions, and be to more engaged in their warm-ups and therefore their swimming.

During the fourth meeting with my coach developer, I highlighted some specific factors that impacted the in-season competition warm-up contexts that my swimmers experienced:

> Our first warm up session challenged athletes because we arrived twenty minutes late to the pool. Our second warm-up session was unique because the host team played excessively loud music that irritated everyone on the pool deck. Our third warm-up session had restricted lane space (30 or more swimmers per lane), that limited the activities that swimmers could safely or comfortably complete. Lastly, our fourth warm-up was very early in the morning, and I perceived our swimmers to very fatigued by this point in the competition (Pool Side Field Notes Week 4).

When reflecting with athletes and my coach developer, I emphasized the importance of developing swimmers' awareness and decision making skills especially given the varied specific contexts of the warm-ups my swimmers experienced at this in-season competition (Coach Development Field Notes Week 4). From my perspective, the decision making skills required by swimmers to navigate the varied contexts of competition they experienced at this swim meet needed to frequently be addressed through conversation and specific coaching practices during training sessions. In other words, the flexible training session warm-up from the first section of this analysis chapter could be very useful to athletes as they learn how to make the best decisions to support their performances. However, these skills can only be developed if swimmers are given an opportunity to make decisions and engage with how their bodies feel. Through my experiences coaching during warm-up at this in-season competition, I was reminded of coach education programs that do not usually support coaches in their specific contexts. These programs, such as the Canadian National Coaching Certification Program (NCCP) typically provide coaches with generalizable sport science knowledge that often cannot be applied in specific contexts; therefore, failing to support coaches with tools to effectively manage their contexts (Cushion et al., 2003; Cushion & Nelson, 2013; Gilbert, & Trudel, 1999). Coaches may be less prepared to help their swimmers navigate specific factors impacting their performances, including their competition warm-ups. In contrast, the coach development process I undertook allowed me to discuss context specific factors that influenced my athletes' performances and skills that I could strategically impact and was being guided by theory.

Another important aspect of my learning from these in-season competition warm-ups was that my swimmers felt most prepared to compete when they completed individualized warm-up plans before their races. As my poolside field notes explained:

> After meeting with swimmers individually to discuss what they perceived was important to feel prepared to race, I concluded that a group warm-up would likely never meet the needs of most athletes. I think that normalized group in-season competition warm-ups could negatively impact my swimmers' performances (Poolside Field Notes Week 4).

Forcing a group of swimmers to complete the same competition warm-up can be better understood through Foucault's disciplinary instrument, normalizing judgment. Normalizing judgment can be described as the constant correction of the way that bodies complete tasks (Foucault, 1995). Given that so many swimmers had unique preferences and methods of warming up, when coaches force all athletes to complete the same warm-up (through the use of normalizing judgment), coaches may be overly constraining swimmers (Coach Development Field Notes Week 4). These swimmers may be best prepared to race if they were able to collaboratively make decisions about aspects of their in-season competition warm-ups with their coaches based on their preferences, abilities, and upcoming swimming races. As I found during in-season competition warm-ups, it was very difficult to let go of my control of warm-up and trust that my swimmers were making decisions that would impact their performances in a positive way (Poolside Field Notes Week 4). Therefore, two factors needed to be addressed in my coaching to facilitate successful swimmer led in-season competition warm-ups. First, I needed to let go of my attachment to controlling in-season competition warm-ups and allow the swimmers to make decisions that I may not agree with. Second, the swimmers needed the skills to make the best decisions for themselves in terms of their warm-ups. This required a general sense of self-awareness and practice making decisions in training in similar contexts. As my coach developer and I discussed, this reflection was consistent with Foucault's perspective, that disciplinary techniques and instruments insidiously impact and constrain bodies in subtle and

coercive ways over time (1995). To change the impacts of disciplinary techniques and instruments as a coach, it is imperative that I frequently make modifications to my coaching to break down my use of discipline over a long period of time (Coach Development Field Notes Week 4).

The last aspect to explain from my experience during these in-season competition warm-ups is how the coach is always being framed as the expert who possesses the required knowledge to guide an athlete to success; when alternatively, the athlete can be framed as the expert while the coach can be thought of as a learner. My poolside field notes from week four described:

> My authority as an all knowing and powerful coach was challenged because I handed over some decision making to the athletes during in-season competition warm-ups. My goal was to help athletes be engaged, be able to make decisions, and communicate – so I can be the learner, understand more about athletes, and support them. This can allow athletes to become the experts in their realities (Poolside Field Notes Week 4).

By giving up my control over all aspects of decision making in competition warm-ups, I reduced my use of multiple techniques and instruments of discipline. More specifically, I was temporarily relieved of the precise command that is used to signal bodies to work as part of the larger machine of our training group (composition of forces) (Foucault, 1995). Generally, I reduced my control over the way swimmers complete in-season competition warm-up by letting go of control over: when they warm-up (timetable, control of activity), where they warm-up (partition, art of distributions), and how they warm-up (series upon series of tasks, organization of genesis).

Additionally, I learned from my swimmers that sometimes they needed more support from me when making decisions about their in-season competition warm-ups because they were not accustomed to the coach giving them this level responsibility (Coach Developer Field Notes

Week 3). They expressed that sometimes they felt like they did not know the 'right' thing to do, as I might be judgmental of their decisions. As was so common with all the coaching modifications that I made during the coach development process, I needed to be very clear in my communication with swimmers and I needed to re-explain the purpose of my coaching in this way to reduce the stress of my swimmers. Learning how to improve my communication skills with athletes was consistent with North's (2010) findings of important outcomes achieved during coach development processes. Improving these skills was relevant to many aspects of my coaching role and improved my coaching practice. Additionally, it is my hope that my reduction of constraints on athletes and the increase in responsibility that they undertook, helped to improve their ability to be engaged in warm ups, gain awareness of their bodies, and make decisions related to their competition preparation.

4.3 Reflections on Peak Competition Warm-Ups

To this point in the coach development process, my learning was progressing and my experience coaching was uncomfortable, but not unexpected. What happened next, during a peak competition warm-up, surprised me and changed the course of the coach development process. As discussed at my fifth meeting with my coach developer, I had very recently attended a travel competition with my swimmers. During warm-ups at this peak competition I observed my swimmers from a different perspective and I became quite frustrated (Coach Development Field Notes Week 5).

Typically, a peak competition warm-up in swimming is comprised of two components: a 10-15 minute on-land component, and a 20-30 minute period of swimming. The land component of the warm-up is intended to generally increase circulation to peripheral parts of the body and to elevate the heart rate. Additionally, light personalized stretching is often included. The pool

component of warm-up is more thorough, and it usually contains a coach determined loosen phase, kicking (legs only) phase, pulling (arms only) phase, stroke drill (specific activities for feel and technique) phase, and an increased heart rate phase. Each phase of peak competition warm-up is somewhat variable as the swimmer is preparing for a specific racing schedule that may include multiple races, and coaches are often involved in determining the timing of the peak competition warm-up. Timing is seen to be particularly important, and coaches work with their swimmers to strategically time the warm-up to prepare for the first race and subsequent races. Though, in many instances a coach will tell his or her athletes that they must warm-up 90 minutes prior to their first race without being flexible to the needs of individual swimmers. Of particular importance to the conversations between my coach developer and I was how swimmers wanted to conduct the increased heart rate phase of their peak competition warm-ups (Coach Development Field Notes Week 5).

Applying a Foucauldian lens reveals that peak competition warm-ups incorporate various types of discipline such as swimmers traveling in lanes (partition) from the art of distributions, and surveillance (hierarchical observation) as coaches watch to ensure that swimmers complete their warm-up tasks (1995). However, these constraints are less rigid and imposed upon swimmers than constraints in training warm-ups given coaches typically have less time and energy to spend normalizing swimmers than they do in training. Further, there is no whiteboard to use as an explanatory tool, swimmers are completing different races than each other (rather than the same practice as each other), and the races all occur at different times. One aspect of peak competition warm-ups that coaches maintain a very close eye on is the increased heart rate component of the warm-up (Poolside Field Notes Week 5). An example of the increased heart rate component of competition warm-ups is race pace repetitions. When I attended peak

competitions with my swimmers, they (as most swimmers do) sought me out to complete timed race pace repetitions to 'warm-up' for their races. This means that they wanted to complete race pace repetitions (usually 25% of the distance of the race) multiple times with me evaluating their stroke technique and how fast they swam. I realized that this peak competition warm-up behavior is common place in our sport, but I still found it troubling.

These race pace repetitions can be thought of as peak competition warm-up 'examinations' (Foucault, 1995) that take place in addition to a busy competition schedule. Swimmers' competition schedules usually include two races per swim meet session and six sessions throughout the weekend. It is typical for high school swimmers to race 12 times during a three-day competition. The concern I shared with my coach developer: if my swimmers are being formally evaluated 12 times in a weekend, why do they need to perform additional examinations during our competition warm-ups? What impact is this having on my swimmers? (Coach Development Field Notes Week 5). From Foucault's (1995) perspective, the examination was a powerful disciplinary instrument that combined hierarchical observation and normalizing judgment. This disciplinary instrument has the potential to be particularly impactful: "Examination is the technique by which power, instead of emitting the signs of its potency, imposing its mark on its subjects, holds them in a mechanism of objectification" (Foucault 1995, p. 184). During swim meet warm-ups, when my swimmers wanted to be timed (normalizing judgment) and observed (hierarchical observation), they wanted me to determine if they should make any last-minute modifications to the way that they were swimming – to assess the way they are moving and point out imperfections. In other words, they wanted to know if I had advice for them to improve their stroke technique immediately prior to their race. From my perspective as a coach, this seems illogical given that swimmers have recently competed, demonstrating how they

fared in a relevant examination. As well, changing stroke technique at a competition is a high-risk decision that could negatively impact performance. However, my swimmers have been trained to need constant validation from their 'expert coaches' about their stroke technique and their speed in the pool. Peak competition warm-ups provide them with this validation helping them feel prepared to race (Poolside Field Notes Week 5).

The specific details comparing normal peak competition warm-up and my modified peak competition warm-up are almost the same as the differences in my coaching during in-season competition warm-ups. Given my experiences at one peak-competition, in consult with my coach developer, I chose to modify my coaching during peak competition warm-ups by focusing on how I discussed and implemented race pace examinations with my swimmers. Because of our reliance on this activity during race pace repetitions and its relevance to Foucauldian theory, it was meaningful and impactful on both my swimmer's warm-up process and my coaching experience.

Despite the poorly informed process of completing race pace repetitions in a competition warm-up (many other physical warm-ups could work), my swimmers have adopted this practice. Consistent with Foucault's analysis of disciplinary techniques and instruments, in ways that they were not aware of, my swimmers demanded that I comply with their desires to complete race pace examinations. Swimmers shared their feelings of stress and their expectations for competition warm-up activities with me through nonverbal and verbal communication. In observing this, I recorded:

> I am irritated with the behavior of my athletes. How could they be so petty? I am exhausted by their constant need to be timed and for technical validation. Having to meet the expectations of my swimmers in these high stress moments feels like a large

> responsibility that I am required to meet. I feel powerless. Peak competition warm-ups were up to them (as we had planned), but rather than thinking about how they feel or how to make decisions to get themselves ready, and progressing forward, they preferred to be timed to validate their confidence for upcoming races (Poolside Field Notes Week 6).

I perceived that many of the swimmers I coach have formed a relationship between race pace in peak competition warm-ups and their confidence when they race (Poolside Field Notes Week 5). While I was intimidated by the responses of the athletes I coach, and the potential risk of undermining their confidence (and maybe even performances), I was the one holding the stopwatch, interpreting the numbers and choosing how to read them out loud. Being a coach has power. With the dictation of one number, I had the power to destroy a swimmer's confidence and impact them immensely (Denison, 2007; McMahon, Penney, & Dinan-Thompson, 2012; Rinehart, 1998; Shogan, 1999). By having this amount of influence, while simultaneously feeling extremely pressured to coach in very specific and exhausting ways, I felt frustrated and caught between two types of knowledge (Coach Development Field Notes Week 6).

The first type of knowledge was the knowledge I have as part of the coach development process, more specifically an understanding of the effects of discipline (in this case examination) on athletes. The second was the knowledge informing normalized swim coaching practices, and a coach's needs to always assess, monitor, and evaluate bodies (Sweetenham & Atkinson, 2003). This second type of knowledge was manifested through the behaviors that many of my athletes exhibited in needing to be examined during peak competition warm-ups. While they expressed their needs for assessment by asking for times and reacting very negatively if they perceived their time to be slow (Poolside Field Notes Week 6), I felt like I was not interacting with them. Rather I felt like I was interacting with Bill Sweetenham and John Atkinson (2003), who are

world renowned leaders in the swim coaching community that perpetuated the need to measure and control every aspect of a swimmer's path to a race.

Due to the pressure that I experienced when coaching race pace repetitions during peak competition warm-ups, I frequently embellished the times that swimmers completed to protect their confidence. I wrote in my poolside field notes during the sixth week of the coach development program:

> I felt sick to my stomach lying to swimmers about their times during warm-up. But I saw looks of dismay, panic, and fear and on their faces when their times were slower than they expected. How could they possibly swim their best races with such a negative reaction to their warm-up? That is when I broke, seemingly letting go of my integrity just for the sake of their races. I hated coaching like that (Poolside Field Notes Week 6).

Despite the power I hold as a coach, and a coach who is holding the stopwatch (a disciplinary tool), during moments such as this, I felt less like Nathan and more like a docile body or a machine. I thought I was powerless to influence my swimmers to shift focus to themselves (their bodies) instead of their times. My experience acting like a mechanistic version of myself in these situations is consistent with Shogan's (1999) writings about discipline, "Coaches, scientists, and Certified Doping Control Officers are as implicated in the machinery of conformity as are athletes. They are just slightly larger cogs" (p. 41). Importantly, through this experience in the coach development process I learned that I, like my swimmers, was being influenced to be docile through my participating in normalized practices dominated by sport science (Coach Development Field Notes Week 6; Foucault, 1995). Understanding the dominant knowledge that impacts me is important because it can allow me to improve my coaching practice in the future. My coach developer and I discussed how I need to be attuned and aware (just like my swimmers)

to the reasons I feel the need to coach in specific ways, such as to measuring swimming volumes during training warm-ups or embellishing times in peak competition warm-ups (Coach Development Field Notes Weeks 3 and 6). Having awareness of potential forces that impact me to become docile and of the reasons I coach the way I do, could potentially allow me to move away from culturally normal coaching practices and focus more on meeting the needs of the athletes I work with every day.

During the seventh meeting with my coach developer, in response to my experiences coaching in peak competition warm-ups, I determined a strategy to change how I approach competition warm-ups (Coach Development Field Notes Week 7). The value of meeting frequently with my coach developer, and having a relationship that allowed me to speak freely was high during our seventh week of working together. This is consistent with North's (2010) emphasis on working with a coach developer who provides individualized context specific support. I felt comfortable discussing the powerful experiences I had when coaching during peak-competition warm-ups. I felt heard when I communicated my concerns and stresses, and I received support to make practical changes in my coaching to help address the issues related to examination. The purpose of these changes was to reduce the potency and frequency of overly constraining examination aspects of my coaching during peak competition warm-ups. Ideally, achieving this purpose would allow the swimmers to develop and use their skills related to engagement, awareness, and decision making. More specifically, I aimed to change my coaching practices during a four-day peak competition at the end of the macrocycle of training for my swimmers. My changes to peak competition warm-ups were as follows (Coach Development Field Notes Week 7): I actively reduced the amount of examination that I imposed on swimmers during peak competition warm-ups by providing less stroke feedback and less timing during

warm-ups. Simultaneously, I did not prescribe any specific parameters for the competition warm-up other than reiterating that the purpose of warm-up is to prepare bodies physically, and cognitively for the task that follows (specific races). This meant that there were no specific volume or intensity requirements. I also actively engaged in conversations with swimmers about minimizing how much I time them during warm-up when they asked to be timed. I only refused to time swimmers, if I perceived they had the capacity for this alteration in their preparation. My modifications to peak competition warm-ups helped me reduce the frequency that I put athletes through examinations and reduced my use of the concepts of timetable and temporal elaboration of the act (control of activity); therefore, also reducing my disciplinary impact on swimmers.

My experiences implementing modified peak competition warm-ups were mixed. I felt generally less stressed when compared to the times I implemented modified training warm-ups and modified in-season competition warm-ups. This was due to the experience I had gained through the coach development process and the increased confidence I had in the modifications I made to my coaching practices. I found that there were many opportunities to challenge swimmers and engage in conversations about assessment and time (Poolside Field Notes Week 7). Unsurprisingly, some swimmers needed more support than others. In one situation, I found myself helping a swimmer progress through a series of body awareness exercises in the pool after she exclaimed, “I don’t know where my limbs are!” following one of her races (Poolside Field Notes Week 7). This guided exercise demonstrated that it is possible to focus on gaining an awareness of the body and perception rather than a focus on temporal outcomes, even during a peak performance competition warm-up. This body awareness exercise went well, and the swimmer ended up dropping a significant three seconds from her personal best time later that day. This example helps support the idea that coaching with Foucauldian concepts in mind can

positively impact athlete performances (Denison, 2007). By no means can the swimmer's personal best time be causally linked to the embodiment activity that we completed earlier that day, but it was one aspect of her preparation that influenced her in a positive way.

Through a narrative reflection of his own coaching, Denison (2007) argued for social theory to be considered as a valuable tool alongside sport science disciplines to help coaches understand factors related to performance and ways to help athletes improve. The coach development process that I undertook with Dr. Denison showed that social theory can be applied to assist athletes to achieve their best performances (Coach Development Field Notes Week 7). By modifying my coaching during a peak competition warm-ups, my implementation of Foucauldian coaching concepts occurred just minutes from the time that my swimmers achieved their lifetime personal best times. This is very important because a general goal of modifying coaching practices in any context is to make a meaningful positive impact on athlete performances. This demonstrates how implementing social theory in my coaching improved my coaching while swimmers continued to achieve best times.

Despite experiencing some frustrations as I coached during peak competition warm-ups, some athletes understood and accepted that examination and timing are not required in a warm-up setting, and others were attached to their warm-up routines and repeatedly asked if we could continue with frequent race pace and timing (Poolside Field Notes Week 7). In some instances during peak competition warm-ups, I lost patience and struggled to support swimmers that had trouble making decisions. In swimming, it is not uncommon for coaches to become angry because swimmers are not able to follow their strict temporal (control of activity), spatial (art of distributions), or organizational (organization of genesis) plans and instructions (Lang, 2010; Foucault, 1995). Some coaches are so strict about the constraints that they impose on athletes

that they force swimmers to 'weigh in' and monitor their food consumption that can lead to potentially dangerous and long term negative outcomes (McMahon, Penney & Dinan-Thompson, 2012). My anger with my swimmers is juxtaposed to the anger that many other coaches feel. My swimmers frequently wanted me to make decisions for them and did not demonstrate the ability to make decisions for themselves. One purpose in my coaching that I worked toward was to facilitate athlete decision making rather than making decisions related to their practice myself. In the seventh week of the coach development process, my poolside field notes described some of the challenges that I experienced during the Foucauldian inspired competition warm-ups. I was surprised by the increase in communication and discussions with swimmers during peak competition warm-ups:

> I had to actively focus on being patient and talk swimmers through their warm-ups, which is something I was not expecting that I would need to do. The swimmers struggled greatly with what to do. They had blank looks, frequent questions seeking direction, asking what pace times to use, and they copied any possible examples from each other rather than reflecting on how their bodies were feeling and deciding how to proceed. I was approached far more frequently than I was used to help swimmers make the best decisions they could (Poolside Field Notes Week 7).

I was surprised at the lack of initiative my swimmers demonstrated in the context of peak competition warm-ups. At this stage I was seven weeks into the coach development process and I had consistently provided my swimmers with opportunities to practice making decisions related to warm-ups in the context of training sessions and competitions. During peak-competition warm-ups I witnessed a lack of transfer from the previous warm-up contexts to this one. One interpretation might be that swimmers perceived peak-competition warm-ups differently than

training and in-season warm-ups. From this perspective, it makes sense that swimmers needed extra assistance in their warm-ups. As I explained above, my swimmer's lack of ability to make decisions has been impacted by the dominance of coach led decision making and programming in competitive swimming for the entire duration of their swimming careers (Lang 2010; Rinehart 1998). It is no wonder that eight weeks of coaching interventions were not able to reorient swimmers when many of them had been training 6-9 times per week over the past 8 years.

My learning was that it took more of my time and energy to coach with Foucauldian ideas in peak competition warm-ups rather than to coach in a more traditional (disciplinary) way where I would usually focus on normalizing swimmers to the plan that was in place for all my athletes. This is an important learning outcome because it highlights how much utility disciplinary coaching practices have, and how in some contexts disciplinary coaching practices seem more practical than in other contexts.

4.4 Summary

This chapter discussed my experiences and provided an analysis of my experiences throughout the coach development process. More specifically, the coach development process focused on my coaching practices in training warm-ups, in-season competition warm-ups and peak competition warm-ups. For each of these three types of warm-ups, I undertook a specific process. I provided an explanation of Foucauldian techniques and instruments of discipline that are usually applied in each of these types of warm-ups. Then, based on the disciplinary nature of these warm-ups, I described the modifications I made to each type of warm-up in consult with my coach developer. Lastly, I discussed my experiences implementing these changes in my coaching practice and shared my learning by examining my experiences in the context of Foucauldian concepts and other coaching research. The specific connections between

Foucauldian concepts and my coaching provided me with rich data as a researcher and powerful experiences as a coach. The relevance, impact, and future directions from this thesis are discussed in the concluding chapter of my thesis.

5.0 Conclusion

The purpose of this thesis was to improve my coaching practices in the context of warm-up by using Foucauldian concepts to problematize my regular coaching practices and think critically about my knowledge of coaching swimming. Additionally, similar to the desirable coaching outcomes described by Denison, Mills and Konoval (2015), and Mills and Denison, (2013), the changes that I made to my coaching practices were designed to impact swimmers positively by helping them to potentially gain awareness of their bodies, improve their decision making skills, and increase their engagement in swimming. This thesis contributes by exploring a new type of coach development process that was more fluid and context specific than many national sport organization programs that already exist. Further, by improving my coaching practices with Foucauldian concepts through this unique coach development process, my thesis explored the process to change long held beliefs and practices in swimming coaching. This thesis went beyond mapping and critiquing coaching practices in swimming; instead, it allowed me to explore social theory concepts in a practical way (Markula & Silk, 2011). To understand this process, I posed the research question: *How is my understanding of how to plan and implement swimming warm-ups shaped and influenced by considering Foucault's disciplinary techniques and instruments through working with a Foucauldian-informed coach developer?* The concluding chapter of my thesis first summarizes seven key aspects of my learnings from my experiences coaching with Foucauldian concepts during my coach development process. Next, I discuss implications for practicing coaches and coach developers from my experiences. Last, I discuss implications for researchers.

There were many important aspects of my learning from the coach development process. The first aspect of my learning was that I was able to achieve multiple positive findings that were

described by North (2010). North described the importance of developing confidence, planning skills, communication skills, technical skills, reflective skills, and the opportunity to observe other coaches with a coach developer. Further, North explained that it was important to have an established relationship with a coach developer, and to ensure that coaches meet frequently enough with their coach developers to be able to make meaningful changes to their practice. Similar to North, I reflected that my coach development process was particularly useful because my coach developer could act as a sounding board that appreciated my coaching context. I also greatly valued my one-on-one time with my coach developer. I was able to gain a deep understanding of changes I could make to my coaching practice that were informed by Foucauldian concepts. I worked with my coach developer on developing my confidence (this occurred indirectly), planning skills, communication skills, and reflective skills. These were discussed in more detail in chapter four. I did not develop my technical skills or an observation of other coaches through the coach development process. In general, I determined that I was able to take many aspects of my learning from the coach development process, which emphasizes its value and many similarities with other one-on-one processes that were studied by North.

The second aspect of my learning was that I found that the specific daily context of each training session or competition significantly impacted my coaching (Poolside Field Notes, Week 1-8). The swimmers in the pool, the different people on deck, my own temperament, as well as many other factors impacted my perception of my coaching each day. My experience was consistent with research findings that critiqued more traditional coach education programs and emphasized the value of coach development programs that accounted for the 'messy reality' of coaching (Cushion, Armour, & Jones, 2003; Cushion & Nelson, 2013; Gilbert & Trudel, 1999). I also found that I needed to see myself as a learner throughout the coach development process

(Coach Development Field Notes, Week 1-8). This was difficult because I was balancing multiple roles that required me to frequently consider myself as a learner while simultaneously being required to make decisions as a leader and authority in my position as Head Coach.

The third important aspect of my learning was that throughout the coach development process I became very stressed when I implemented coaching practices in which I perceived myself to be less productive or credible than I usually perceive myself. These findings were consistent with the findings of Jones (2006), and were discussed by Mills and Denison (2013) who interviewed and challenged long-held beliefs of high performance coaches in athletics. Mills and Denison (2013) explained that they perceived high performance coaches to be potentially threatened by changing their practices in ways that could impact how they were respected and how they were thought of as an authority by their athletes.

The fourth aspect of my learning was that during the coach development process I perceived both myself (as a coach) and my athletes at times to exhibit docile behavior (Foucault, 1995; Shogan, 1999). While coaching, I displayed docility when I was challenged by my swimmers during peak competition warm-ups and had to manage their desires to be frequently examined. Feeling stressed, I reverted to examination oriented coaching during peak competition warm-ups to prevent upsetting them and possibly harming their performance (Poolside Field Notes Week 6). This experience linked to the fifth aspect of my learning which was the importance of considering the Foucauldian disciplinary instrument of examination in all warm up contexts (Coach Development Field Notes Week 6; Rinehart, 1998). I determined that examination was an important aspect of my practice to consider because my experience showed that its frequent use has the potential to influence coaches and athletes to become docile and in turn can potentially negatively impact the performances of athletes. It was also important for me

to remember that comparison, usually completed through some type of examination, is an essential part of sport and swimming. Some examination is required to help athletes progress in their training, and that means that examination will sometimes be included in the three types of warm-ups that I examined in this thesis. I needed to consider the frequency, and impact of implementing activities in training and competition that include different types of examination.

The sixth aspect of my learning was that coaching with Foucault can help coaches improve the performance of their athletes. In my field notes, I described that based on Foucauldian informed coaching interventions in peak competition warm-ups, I perceived that I positively impacted athlete performances moments before they achieved their lifetime personal best swims (Poolside Field Notes Week 7). This included guiding swimmers through awareness activities, discussing how their bodies felt, and assisting them in learning how to make meaningful decisions at competitions. However, coaching in this way required the following: increasing the time I spent in dialogue with swimmers, minimizing the amount of normalized warm-ups that I prescribed to swimmers, and shifting my perspective to learn from my swimmers. It was a challenge making these changes as it took significant time and an openness to critically consider normalized coaching practices (Denison, Mills & Konoval, 2015).

The final aspect of my learning was how my relationship with sport science knowledge changed throughout the coach development process. Previously, sport science guided almost every aspect of my training program, including warm-ups. Currently, I continue to consider sport science knowledge as important, but my approach to implementing any coaching practice is more balanced due to my newly acquired understanding of Foucault's disciplinary techniques and instruments. Coaching with Foucault means providing athletes with the training that they need, acknowledging the relevance and importance of sport science, but tempering its

implementation in practice by also considering the impacts of multiple power relations (power relations between coaches and athletes, coaches and parents, coaches and a board of directors, coaches and other coaches etc.). This careful consideration is subtle, yet critically important, because I am trying to coach in ways that facilitate optimal performances through the mastery of demanding physical tasks while being cognizant of the coercive docile-making impacts of disciplinary coaching.

5.1 Implications for Coach Developers and Coaches

This thesis may have practical implications for coach developers. More specifically, coach developers can learn from the findings of this thesis through exposure to the format of the coach development process that I undertook including the role that previous coach development research used in supporting my coach development process. When considering that Mallet et. al. (2009) described coach development as a broad "all-encompassing term that refers to the process leading towards enhanced expertise" (p. 325), there are many ways for coaches and coach developers to approach this process. The eight-week coach development process that I undertook had a format that incorporated coach development priorities outlined by North (2010) that provided me with a rich experience as a researcher and as a coach. Important aspects of the coach development process that contributed to this rich experience included: working with a coach developer I knew well, addressing my planning and communication skills, meeting frequently (weekly) with my coach developer, and ensuring that my coaching context was considered in the process (North, 2010).

A key aspect of the coach development process I undertook was that it was supported by multiple researchers that critiqued standard coach development strategies like weekend coach education courses. These coach development programs have been shown to present course

content that becomes decontextualized in the coach's actual practice setting (Cushion, Armour, & Jones, 2003; Cushion & Nelson, 2013; Gilbert & Trudel, 1999). By completing a coach development process that was informed by Foucauldian theoretical concepts, my coach development process fluidly and dynamically responded to my actual coaching context and my experience throughout the process. The context specific learning that I undertook was always relevant to my practice and was very challenging and engaging.

In future coach development processes that utilize Foucauldian concepts, coach developers may consider the duration of the coach development process to ensure that it is long enough to impact meaningful changes in the coach's practices. This can allow multiple practice contexts to be explored and give both the coach and coach developer enough time to consider multiple Foucauldian concepts that could help them improve the coach's practice in the short term and long term. Additionally, the six learning outcomes mentioned above are important for coach developers to consider as they determine how to guide their mentees, potentially by utilizing social theory.

This thesis may also have practical implications for coaches. More specifically, coaches can learn from the findings of this thesis through exposure to: specific coaching practices they consider when planning and implementing warm-ups, key learnings I gained from the coach development process, and an explanation of Foucauldian concepts that can help them think critically about their coaching practice. Coaches can have a significant impact on themselves and their athletes by considering the impacts of disciplinary techniques and instruments. They can seek even the smallest ways to reduce their potential to create docile athletes. This is especially true when considering that Foucault's disciplinary techniques and instruments can be thought of as forces that are only noticeable as "a general discomfort that pervades life" (Markula & Silk,

2011, p. 16). Even the smallest modifications to coaching practices can have a subtle impact on athletes, giving them more space to feel their bodies and engage in their surroundings.

A practical question is, how the findings from this thesis can be best communicated to coaches? One challenge I have experienced, and I will continue to experience, is the prerequisite knowledge required when discussing Foucauldian concepts. It is possible to discuss one specific aspect of Foucault's disciplinary instruments, examination for example (1995), without extensive academic readings or coursework. However, all of Foucault's work rests on underpinning poststructuralist philosophical concepts that are not easily accessible to practicing professionals who may not have a background in this area. As a coach and a graduate student, I think that it is important that when sharing my experiences from this thesis with coaches that I communicate in ways that are accessible to a broad audience but also in ways that respect the integrity of complex Foucauldian concepts.

Other researchers have used creative approaches when trying to share research findings with practicing coaches. In addition to their many research publications, Mills and Denison (2016) completed a series of three blog posts for a premier track and field website to connect Foucauldian coaching concepts to practicing coaches. To make communication more accessible, perhaps shorter and more digestible communication methods such as blog posts, TED talks, or conference presentations could be effective ways to share Foucauldian coaching research outcomes with coaches. Another way to impact practicing coaches to gain awareness of Foucauldian concepts could be to publish an academically based practical guide describing how to coach using Foucauldian concepts. This guide would have to respect the integrity of complex theoretical concepts while focusing on explaining how coaches can change their practices in their contexts.

Lastly, it is important that coaches and coach developers consider educating athletes as they implement Foucauldian coaching practices. Throughout my coach development process (Coach Development Field Notes Weeks 3 & 4) it became clear that I needed to take time to communicate and explain the rationale for any changes in my coaching to my swimmers. I experienced that swimmers, like anyone else, responded better to the changes I made in my coaching practice when I explained why I was doing what I was, and why it could benefit them. Further, the best way that I was able to link the changes in my coaching practice to swimmers was by explaining how the changes in my practice were intended to help swimmers improve their performance (Poolside Field Notes Week 2). I did this by emphasizing how important it was that swimmers gained awareness of their bodies, improved their decision making skills, and maintained engagement during peak competition warm-ups. When implementing any coaching intervention, it is important to consider how athletes are educated in specific ways. As Foucauldian coaching research progresses, an important aspect of the research will be the views of athletes and attaining their perspective about how Foucauldian coaching methods could be explained and implemented.

5.2 Implications for Researchers: Future Directions

This thesis may impact researchers who study coaching using social theory and shows how theory can be used to improve coaching practice. Because of the significant learning that I undertook during the coach development process, my experiences validated the importance of Foucauldian theory being applied to coaching swimming. As a practicing coach, Foucauldian theory facilitated a broadening of my perspective and gave me the tools to observe and see past normalized coaching practices that I had adopted. By working with a coach developer, I made meaningful and specific changes to my practice based on theory, which was a rare and fruitful

opportunity. This section highlights implications from this thesis including the need to study the application of Foucauldian coaching practices in swimming that move beyond the context of warm-ups, the need for research projects that can be completed in the contexts of other sports, and the need to study the application of a variety of Foucauldian concepts in swimming coaching.

While this thesis provided an account of my experiences coaching with Foucauldian concepts during warm-ups in my coaching practice, further research is needed to understand the experiences of swimming coaches when making changes to other aspects of their practices. Given the importance of biomechanics and physiology in swimming (Mujika et al., 1995; Swimming Canada, 2013; Swimming Canada, 2016), researchers could provide accounts of their experiences coaching with Foucauldian concepts in mind when specifically assisting swimmers in improving their technical skills and when implementing physiological training stimuli. From a practical perspective, this means investigating coaches' experiences coaching with Foucault when providing stroke corrections and when coaching the main set (the focus of the physiological training stimulus) during training sessions. Key aspects of swimming training to both coaches and athletes are stroke technique and main sets; therefore, integrating Foucauldian coaching practices in these contexts would be extremely meaningful to study by researchers and valuable to coaches' practice. Some challenges, similar to those I experienced, may be a lack of willingness of coaches to be open to changing their practices in these high stakes contexts because of a fear that they would not be as efficient or that they may lose credibility amongst their athletes (Jones, 2006; Mills & Denison, 2013). An additional way to increase the depth of study during coach development processes is to extend the coach development period. A longer period of coach development would allow coach developers and coaches to go further into

coaching practices and impact how the coaches correct and teach technical skills, and implement main sets. A period of three to six months would allow for greater depth than the eight weeks I completed.

In an effort to continue developing high quality processes for coach development that respect the coach's context and are guided by theory, Foucauldian coach development processes need to be implemented in many different sport contexts. Similar to Konoval and Denison (2015), these coach development research projects can be oriented to attain the perspectives of coaches, coach developers, and athletes. This way, a greater understanding of the power relations present during coach development as well as a better understanding of athlete's perspectives can help inform future Foucauldian coaching practices. Attaining the perspectives of athletes being coached by coaches who utilize Foucauldian informed practices would help researchers and coach educators gain a fuller perspective of the impacts of these new practices. Further research and publications that utilize Foucauldian concepts to create change in coach development and coach education have the potential to impact the knowledge that informs future coaches and coach educators. Ideally in the future, Foucauldian coaching research can continue gaining relevance and can be included in Provincial Sport Organization, National Sport Organization and university coach education curricula.

Another area to research with the purpose of helping coaches improve their practice in swimming would be to examine swim coach development materials with the use of Foucauldian concepts and methods other than disciplinary techniques and instruments. For example, Avner, Markula and Denison (2017) used Foucault's analysis of discursive formations to understand what knowledge was considered valuable, what knowledge was included, and what knowledge was excluded from the concept of effective coaching on two Canadian sport information

websites. These websites included the Coaching Association of Canada website and the Canadian Sport for Life Society website. They found that effective coaching was conceptualized through these websites by three scientific knowledges of the body that included: sports psychology, sports physiology, and sports medicine (p. 106) that focused on athletes' long term development, mental and physical skills, and physical training. Consequently, the concept of effective coaching did not leave space for more "sociohistorical-political understandings of coaching effectiveness, which better account for the social dimensions of the coaching process" (p. 106). The same Foucauldian method, an analysis of discursive formations, could be applied to swimming specific NCCP coaching materials and Swimming Canada coach education information. This research could help progress the understanding of what counts as effective coaching in swimming and could even help make space for new understandings of effective coaching.

Another Foucauldian concept that could be used to inform coach development processes with athletes in swimming is Foucault's concept of the technologies of the self. This concept appeared in Foucault's later work and was used to help explain how individuals can have a role in resisting practices of domination. He described the technologies of the self as a concept that can:

> permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality (Foucault, 1988b, p. 18 as cited in Markula, 2003).

It is through the self-transformation of coaches that researchers could explore how coaches may be able to challenge the dominant knowledge and constraints of effective coaching discourses. A

coach development process aimed at facilitating coach transformation in ways that allow them to challenge specific relations of power, governmentality, or disciplinary techniques and instruments could potentially impact coaches in a deeper way than I experienced. My coach development process was structured to facilitate my improved learning and understanding of disciplinary techniques and instruments and how to coach in ways that could positively impact my athletes with this knowledge. If researchers investigate coach development processes that focus on transforming the coach, this could facilitate coach practicing in ways that are not currently possible, allowing for transformative changes in the coaching profession.

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Appendix A

Table 1.0: Summary of Standard and New Coaching Practices in Swimming Warm-Ups

	Standard Coaching	**New Coaching**
Training Session Warm-Ups	• Coach communicates warm-up through a specific training set written on a white board. • Coach controls the lanes that athletes swim in. • Coach controls the practice times, the moment warm-up starts, and all the pace times during warm-up. • Coach controls how the body moves in relation to itself, provides personalized adaptations for the set, and determines when to move swimmers to different training groups. • Coach starts and stops the group based on their efficient completion of warm-up.	• Swimmers have 30 Minutes to warm-up their bodies (in and out of the pool) before the next activity begins. • Coach does not control the lanes athletes' swim in. • Coach only controls the start time and end time of the 30-minute warm-up period. • Coach does not control the way swimmers move their bodies and how swimmers interact with other swimmers. • Coach does not interfere with swimmers as they complete warm-up. Coach only directs swimmers as a group if there is a safety concern. • Coach engages in specific conversations as swimmers ask questions, but does not specifically observe or assess individual athletes
In-Season Competition Warm-Ups	• Swimmers receive volume parameters for their warm-up (e.g., 1200-1500 Meters), and specific lanes where they should complete their warm-up. • Swimmers are instructed to complete specific aspects of warm-up including: loosen, kick, technical swimming, race pace, and swim down. • Swimmers are instructed to complete supervised high heart rate (race pace) swimming that is timed and technically assessed by their coach. • Swimmers are instructed to warm-up 60-90 minutes prior to their race to optimize race performance. • Coach adjusts schedule, technical focus, and high heart rate swimming based on their perception of individual needs.	• Swimmers receive no volume parameters and warm-up is based on how long they need to feel ready. Swimmers are not required to warm-up in any specific space. • Swimmers are not instructed to complete specific aspects of warm-up. • Swimmers are instructed to warm up their core body temperatures and increase their heart rates, given that this is the intended purpose of warm-up. • Swimmers warm-up based on the timing that they think and feel is appropriate to prepare for their race. • Coach is available to assist swimmers, discuss aspects of their warm-up and answer questions.
Peak Competition Warm-Ups	• Peak competition warm-ups are the same as in-season competition warm-ups except for more emphasis on athlete assessment and corrective conversations. • During the race pace aspect of warm-up, coaches time swimmers to ensure that they are swimming at their goal race pace. • When swimmers achieve this, usually the coach and swimmer feel ready for the race. • If swimmers are not able to swim at race pace, or if they are slower than they were recently (e.g., the day prior), coaches prescribe a technical, tactical, or other type of intervention to help athletes to race at their best.	• Peak competition warm-ups are the same as in-season competition warm-ups except for adjustments made to minimize the potential negative impacts of assessment and corrective conversations on athlete performances. • Coach minimizes or refuses to time swimmers during the high heart rate aspect of their warm-up. • Coach discusses timing and technical assessment with athletes to reduce their reliance on timing and the assessment of their technical skills during high stress competitions. • Coach is available to assist swimmers, discuss aspects of their warm-up and answer questions related to the competition.