Elementary Teacher Perspectives on the impact of high performance athletics on student academic achievement

By

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The study investigated elementary teacher perspectives on the academic achievement of high-performance athletes. The purpose of the study was to gain insight into how high-performance sports training effects the academic performance of children under the age of thirteen, as well as to learn how teachers are supporting these students’ academic success. Using a qualitative approach, three semi-structured interviews were conducted with a sample of elementary teachers who self-identified as being experienced in teaching high-performance student athletes. The results of the study found that the level of accommodation that participating teachers put in place for these students was dependent on teachers’ own personal athletic experiences. Teachers argued that the competitive sport level is more common than the high-performance level and that deliberate play-based sports (such as hockey) are the most prevalent in their classrooms. Participating teachers supported the increased weight being put on academic achievement for eligibility to participate in post-secondary athletics, but they saw little need for in-school accommodation toward that end at the elementary level. The study demonstrates the significance of constant communication between teacher, parent and coach, and the need for a shift in the focus of many extra-curricular athletic programs from result oriented to improvement oriented.

Key Words: high-performance, athletics, competitive, sports, achievement, accommodation
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This research study is dedicated to Melanie Photopoulos, my sister and life-long best friend. Thank you for continually supporting me on my journey to a work in dance education and for inspiring me to turn my passion into my career. For our shared eagerness in developing high-performance and competitive dancers, may this study (and its findings) be a tool to draw upon, so that we may continue to advocate for the importance of youth athleticism, confidence and well-roundedness in future generations of children.

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Chapter 1.0: INTRODUCTION

1.1 Introduction to Research Study

There seems to be an ongoing, unspoken race among adults to “make champions of our children” (Farrey, 2008; n.p.) in athletics, whether in team sports like hockey and basketball, individual sports like golf and skiing or leanness sports like dance and cheerleading (Bennet, Lipman & Robertson, 2008). This race stems from various areas, such as parental dreams and opinions, coach desire and drive, and the ideals and exploitation of young athletes by the media (Hyman, 2012; Lumpkin, 2013; American Academy of Pediatrics, 2000). Although specialization in athletic sports is not recommended for children below the age of 12 (American Academy of Pediatrics, 2011), some elementary athletes are training at equivalent or superior levels to students in high school and/or post-secondary institutions, even though such levels of athletic training goes against the recommended developmental guidelines set forth by the Canadian Pediatric Society.

At earlier and earlier ages, parents seem to be enrolling their athletic children in programs focused on skill development and competition (Hyman, 2012). Ericsson, Krampe & Tesch-Romer (1993) suggest that in order to reach expert level in any hobby, participants must engage in deliberate practice for at least 10 years (or 10 000 hours). By
exposing young athletes to intense training at earlier ages, they argue that young athletes are consequently more likely to reach higher levels in athletics sooner (and during athletic prime) than those that start training later in life. An additional consideration that merits attention is research showing that early sampling of a range of sports, and not specialization and in a single sport, leads to greater levels of expertise, commitment, and success in sports later in life (Cote, Baker and Abernathy, 2007; Hyman, 2012).

Academic success comes into play quickly in the world of youth athletics. The primary goal of starting sports early is commonly that of reaching expert (or professional) status. One of the most direct routes to reach professional status in many sports is through participation in post-secondary sports teams or clubs. Research has found that this relationship between academics and athletics has consequences for children. Merkel (2013), for example, found that parental pressure to receive an athletic scholarship to a post-secondary institution remains the most significant negative consequence of participation in high-performance athletics for children. While for a time student athletes’ access to a strong athletic program was facilitated by their athletic abilities, eligibility requirements set by the National Collegiate Athletics Association (NCAA) in the United States have recently shifted in their emphasis on developing the whole student-athlete by expecting that athletes “meet academic standards throughout their careers on campus to remain eligible to participate in intercollegiate athletics” (NCAA, 2015; n.p.). This means that grades are now being weighed as equal as athletic ability when it comes to scholarships and participation in NCAA athletics. Similarly in Canada, the Canadian Collegiate Athletics Association (CCAA) holds academics at a high status when it comes to eligibility in post-secondary athletics, and even offers awards for high grades while participating in
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CCAA sports (2015). For the sports not associated with the NCAA or the CCAA, such as tennis, gymnastics, dance and cheerleading, both private scholarship and acceptance to the university is based primarily on the student-athlete’s academic success.

Academics must now be weighed in more seriously when students are training, and although high school and post-secondary grades are taken into consideration when it comes to eligibility to participate, research has found that the habits and work ethics required to obtain such grades are commonly developed during elementary school. Merkel (2013) found that benefits of involvement in organized sport at the elementary level, for example, extend beyond physical health and also include time management, goal-setting, increased self-esteem, the development of leadership skills, emotional regulation, and cooperation.

There are various negative aspects that high-performance sports training has on academic achievement explored by Merkel (2013), Farrey (2008) and the Canadian Paediatric Society (Purcell, 2011). The negative consequences of involvement in high-performance sport at a young age could be causing student-athletes to be physically, psychologically or cognitively unable to reach their full academic potential, which may affect their ability to achieve academic success, leaving the athlete ineligible for collegiate athletic programs.

One of the aids that have been put into place in many post-secondary and secondary schools are academic support programs for athletes (Burnett, Dilley-Knoles & Peak, 2010), which assist athletes in maintaining high academic standards, but no such thing exists for elementary student-athletes. Since the skills required for both academic
and athletic success are developed during these early years, it is possible that similar pro-
grams may be of use.

1.1.1 Defining Key Terms
Before continuing, a few key terms must be defined that will be used throughout the study. For the purpose of this study, the term high-performance athlete refers to an athlete that is competing at the highest level available for their age group in their sport(s) of choice, and training a minimum of 12 hours per week. An example would be an 11-
year old hockey player, competing in a AAA league and training 13 hours per week (in-
cluding practices, games and dry-land training), or a 10-year old dancer competing in the Competitive or Elite division and training 18 hours per week. A competitive athlete refers to an athlete that is involved in athletic competition, but not at the highest level for that specific age group, for example, a young hockey player competing in a AA division or a young dancer competing in the Pre-Competitive or Amateur division. A recreational ath-
lete refers to an athlete that engages in sports simply for recreational reasons, such as house league or recreational dance classes. The term professional athlete refers to athletes that are over 18 and that are paid to participate in their sport(s) of choice, and the term academic achievement refers to the student-athletes’ grades.

1.2 Research Problem
Although much research has been done on the effects of high-performance sport training on academic success in high school and post-secondary, more studies that focus on young children and elite athletics are needed (Bennet et al, 2008). To date, there is lit-
tle research on the effects of high-performance sport involvement on the academic suc-
cess of elementary children. Since elementary school has a direct influence on the devel-
opment of the characteristics and habits needed for high school and post-secondary academic success, research in this area would be of significance. There is also little research on the educator’s perspective on such issues. Instead, much research has looked at the perspectives of parents and coaches, or of regulating bodies such as NCAA, CCAA, and University committee work governing admissions requirements for high-performing athletes.

There is a contradiction in the research about whether high-performance sport participation has positive or negative effects on children, specifically on their education and academic achievement (Merkel, 2013; Holsendolph, 2006). Since academics are increasingly weighed into the eligibility for collegiate athletics, it is important to hear from teachers how they view their role in supporting this endeavour and how they accommodate these students learning needs given their training schedules. It is important to learn how teachers support students in realizing academic success while balancing the pressures involved with being a high-performance child athlete.

1.3 Purpose of the Study

In light of this problem, the purpose of this study is to learn how elementary teachers perceive the relationship between student involvement in high-performance specialized sport and their academic performance within the classroom. Additionally, the purpose is to learn if and how these teachers modify their instructional practices to accommodate the learning needs of these students and why. It is my hope that the findings from this research can inform not only how the education system supports the academic success of high-performing students, but also to learn how teachers can be further supported in this
work. The findings can also help inform coaches and parents in terms of how they may better support these athletes in achieving academic and athletic success.

1.4 Research Questions

The following questions guided this research study:

• How do a sample of elementary teachers perceive the relationship between students’ participation in high-performance athletics and their academic achievement?
  • How do these teachers modify their instruction to accommodate the learning needs of high-performance athletes and why?
  • What range of factors and resources do these teachers believe support these students’ capacity to maintain strong (and simultaneous) athletic and academic performance?
  • What range of factors do these teachers believe hinder these students’ capacity to maintain strong (and simultaneous) athletic and academic performance?

1.5 Background of the Researcher

I have always been interested in studying child athletics, and more specifically, child athletes that are training at an elite level in a specialized sport. This stems back to my youth experience as a competitive dancer. Although there are many conflicting perspectives over whether dance is a sport or an art form, many competitive dancers seem to regard dance as both. Bennet et al (2008) classify dance as a “leanness sport”, a heading under which they also categorize gymnastics, cheerleading and figure skating. Competitive dancers compete both individually and in teams, usually training in both areas at the same time, from approximately five to thirty hours per week. Dance competitions enforce rules, regulations and score systems that place dancers according to a numerical score,
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based on the skills performed by each group or individual. In my opinion, this classifies
dance as a sport, although it is important to keep in mind the artistic element as well.

As I grew older, I began coaching competitive dancers ranging in age from 4 to
17. I also began competing in university as a cheerleader. Both of these roles provided me
with insight into the lives of young athletes - coaching involved me in their lives, and
cheerleading allowed me to witness younger athletes participating at various competitions
(outside of dance). I also have grown up watching some of my cousins wake up early,
attend practice (hockey and gymnastics), go to school and then train after school, com-
mitting to roughly 27 hours of training per week at times. As I began seeing similar
commitment in my own dancers, I started to wonder how the rest of their lives were be-
ing affected by their sport training. I noticed that many children would spend hours at the
studio in the evening and only take out homework to work on during breaks, while others
never brought homework at all. I also have overheard heated conversations between par-
ents and children surrounding the incompletion of homework, specifically at the end of
the night when students would complain about having to finish an assignment when they
got home.

This topic is very close to my heart because it concerns my passion, that is, coach-
ing competitive dance. Although I will not be focusing specifically on competitive dance,
I believe that this passion is what drives me to want to learn about child athletics in gen-
eral. Similarly, I am passionate about elementary education. I want to learn about the re-
relationships between these two passions of mine; what does and does not benefit students,
and what I can do as an elementary teacher to accommodate the pressures that elite ath-
letes face while helping them achieve academic success.
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1.6 Overview

In Chapter 2 I review the literature that is presently available on the benefits and consequences of high-performance athletics on academic achievement. In Chapter 3 I outline the methodology and procedures that were used in this study. This includes information on the participants as well as instruments used to collect data. In Chapter 4 I report my findings and speak back to the research questions and the literature reviewed. In Chapter 5 I draw conclusions, explore the implications of the study, make recommendations, and identify areas for future research.
Chapter 2.0: LITERATURE REVIEW

2.1 Introduction

The following review analyzes a range of research taking into consideration the relevant literature relating to the study of the observations of elementary educators on the academic achievement of high performance athletes under the age of thirteen. Included in this literature review are a broad array of studies, from various time periods and countries, involving various participants (elementary, secondary, post-secondary students and the general population). Most of the literature is academic, written by scholars conducting research in the realm of youth sports and physical activity.

In this chapter I review research in the areas of: positive and negative effects of starting sports early, specialization in sport, effects of high performance sport on academic success, and post-secondary athletic programs.

2.2 Known Effects of Starting Sports at a Young Age

According to the American Academic of Pediatrics (2000), there is an increasing pressure on athletes in today’s society to train “longer, harder and more intelligently … at an earlier age”. This could have to do with the media’s exploitation of youth athletics such as high school basketball games on ESPN in which young athletes are critiqued and assessed against criteria that are beyond their age and competition level (American Academy of Pediatrics, 2000; Hyman, 2012; Lumpkin, 2013). Research to date has identified a range of both positive and negative effects of starting children in sports early (Merkel,
Wishful parents that hope to watch their child go far in athletics, perhaps even reaching professional status, seem to have a fear of waiting too long before enrolling their child in organized sports (Hyman, 2012). On the contrary, Lumpkin (2013) and Hyman (2012) state that most successful athletes have “genetic advantages” that allow them to achieve high status in a particular sport regardless of the amount of training they endure. For example, a basketball player that is very tall or a gymnast that has natural flexibility will reach higher levels of sport than their average peers, even if they both train equally in hours. This means that expert status is not measured by time spent practicing, and that early enrolment in sports does not actually serve as an advantage to the athlete.

Although the World Health Organization (2011) makes clear that “the benefits of being physically active outweigh the harms” (p.2), when it comes to children’s organized sports, Martens (1993) explains that youth sports are like a double-edged sword that can “swing in the right direction [and] have tremendously positive results, [or] swing in the wrong direction [and] be devastating” (p.17).

2.2.1 Positive Effects

Sports require both physical and mental activity to be put forth by the athlete in order to take place, and therefore have seemingly never-ending benefits for both physical and mental health. Researchers have found that not only are high school athletes more likely to choose fruit and healthy food options, they are less likely to smoke, do drugs or have unprotected sex (Bailey, Armour, Kirk, Jess, Pickup & Sandford, 2007; Merkel, 2013). Youth sport has also been found to build strong character and bodies (American Academy of Paediatrics, 2000; Bailey et al 2007; Siegenthaler & Gonzalez, 1997), as
well as develops stronger cardiac function in athletes versus non-athletes (American Academy of Paediatrics, 2000).

Lower emotional and anxiety disorders are also found among young athletes when compared to their non-athletic peers (Bailey et al, 2007; Bennet et al 2008), as well as lower suicide rates (Merkel, 2013). Young athletes also tend to have higher self-confidence and social support than non-athletes (Bailey et al, 2007; Merkel, 2013; Siegenthaler & Gonzalez, 1997). Research has found that youth involved in competitive or high performance athletics gain positive feelings from belonging to a team (Bailey et al, 2007), “sticking it out” in difficult game conditions (Siegenthaler & Gonzalez, 1997) and developing gross motor skills. Additionally, for decades some researchers have believed that early exposure to competition through sports is a good way to prepare children for the highly competitive workplace that our society revolves around (Snyder &Sprietzer, 1977). To date, much of the existing research into the benefits tends to focus on the benefits of physical activity in children, and the benefits of organized or high-performance sport in adolescence. Much less attention has been devoted to investigating the benefits of organized or high-performance sport in children under 13. With the youth sport industry valued at over $7 billion in North America (Hyman, 2012), it is clear that society deems organized and high-performance sport an important part of children’s lives. While research on the benefits of participation in organized and elite athletic programs have been documented for youth and adolescence, there is a need for more research into the benefits for children.

2.2.2 Negative Effects
The negative effects of youth organized sports seem to be less due to the actual
sport, and more due to the adults involved in the athletic programs. In America, less than
20% of little league coaches are qualified with formal training (Merkel, 2013). This is a
problem because the majority of coaches are not aware of the developmental levels that
children go through (cognitively and physically), and are therefore unable to offer
activities that coincide with these developmental stages (Canadian Pediatric Society,
2011; Siegenthaler & Gonzalez, 1997). For example, some unknowing coaches are using
training tactics and drills in youth practices that were originally developed for college-
level athletes (Farrey, 2008). This may result in the athlete growing frustrated because the
coach and/or parent is expecting more effort than the child can produce at their develop-
mental level (Siegenthaler & Gonzalez, 1997; Turman, 2007). Additionally, coaches and
parents that are overly focused on competition and winning can have harmful psycholog-
ical, emotional and physical outcomes for children (Farrey, 2008; Lumpkin, 2013).

Although most children enjoy engaging in organize sport to have fun or make
friends, many parents are only playing to win (Farrey, 2008; Lumpkin, 2013; Merkel,
2013; Omli & Wiese-Bjornstal, 2011; Siegenthaler & Gonzalez, 1997). Research has
found that this parental pressure can be so stressful that it leads to burnout or dropout of
the athlete (American Academy of Paediatrics, 2011).

Additional negative effects of organized sport at a young age include overuse in-
juries (American Academy of Paediatrics, 2011), eating disorders in athletes involved in
leanness sports like cheerleading, dance or gymnastics (Bennet et al, 2008) and the delay
The most interesting aspect of the negative effects associated with young athletics and youth organized sport is that the majority of them do not stem from the actual partaking in the sport, nor from the sport itself, like the benefits do. The negative effects seem to grow from negative adult involvement. Regardless, researchers have made several recommendations for minimizing the negativity in the youth sport industry:

1) Coaches should focus less on winning. They should obtain coaching certification for their sport of choice and should “provide appropriate age instruction” (American Academy of Paediatrics, 2011; Merkel, 2013; Siegenthaler & Gonzalez, 1997).

2) Parents should be provided with the behavioural standards and objectives of the league in which their child plays with (Siegenthaler & Gonzalez, 1997).

3) Pediatricians should work together with parents of athletes to make sure that they are training with qualified coaches. Child athletes should be monitored regularly by a pediatrician (especially elite child athletes), to ensure nutritional standards are being met (American Academy of Pediatrics, 2011).

Similar to the benefits, there seems to be much research on the physical negative effects of high performance adolescent athletes, but little on children under 13. There is, however, significant research on the negative effects of competition and of competitive parents/coaches. More research in the effects of positive coaching and parental influence
is needed, as well as more research on how the negative effects of high performance sport in childhood effects children in their academic, social, emotional and psychological areas.

2.3 Specialization in Sport

According to Haynes (1990), the odds of making it to a professional league for basketball or football from the collegiate level is one in ten thousand, and this is not taking any other sport into consideration. Consider, then, the millions of children that participate in sport hoping to reach the collegiate level. Baker and Robertson-Wilson (2003) define specialization as “limiting sport participation to a single sport with the specific goal of guiding the athlete to top achievement” (Baker & Robertson-Wilson, 2003, p.1). Parents often believe that early specialization will increase their child’s chance of making it to an elite level (Russell, 2013), and this is a belief supported by the research conducted by Ericsson et al (1993). Hyman and Lumpkin (2012), however, challenge this assumption, arguing that the “genetic advantages” (Hyman, 2012; Lumpkin, 2013) of most high performance athletes help them see success regardless of when they begin training. It should be noted, though, that such genetic advantages are uncommon, for example, a basketball player that is extremely tall or a gymnast that is naturally flexible. Such traits assist these lucky athletes in reaching high levels of sport unattainable to many athletes that are unequipped with these advantages.

The Canadian Pediatric Society has outlined a series of developmental stages that are to act as guidelines for parents and coaches about the ages at which children should begin to specialize in sport and enroll in competitive programs. Between two and five years old, sport activities should be fun and competition should be avoided. Motor skills
such as running, balance and catching should be the main priority. Between the ages of six and nine, minimal competition may be introduced at entry levels of organized sports. It is not until ten to twelve years old that the Canadian Pediatric Society suggests enrolling children in team sports. During this time, athletes should be mastering motor skills and improving transitional skills (Canadian Pediatric Society, 2011). Both the Canadian Pediatric Society (2011) and the American Academy of Pediatrics (2011) suggest that specialization in sports should not occur until twelve or thirteen years of age.

The reality is that the majority of athletes who specialize end up doing so before adolescence (Russell & Limle, 2014; Jayanthi, Pinkham, Dugas, Patrick & Labella, 2012), due to parental or athlete aspiration of reaching high achievement in their selected sport (Russell & Limle, 2014; Hyman, 2012; Lumpkin, 2013). For athletes that are competing at a professional level, the Developmental Model of Sport Participation (Coté, 1999; Coté et al, 2007) states that these athletes made it to professional status through one of two pathways; early specialization or early sampling.

2.3.1 The Case for Early Specialization

Some researchers are convinced that early specialization is a prerequisite for elite athleticism (Jayanthi et al, 2012). Deliberate practice and deliberate play (Coté et al, 2007) are two types of activities that young athletes engage in during their young training years. Deliberate practice focuses primarily on outcomes such as winning or skill development, is extrinsically motivated and has strict rules and regulations (Coté, 1999; Coté et al, 2007). Ericsson (2003) defines deliberate practice as a training activity with the main goal of improving the athlete’s performance, that requires cognitive and physical effort. Deliberate play, on the contrary, “resembles sport but allows for play at their level”
Deliberate play allows the athletes to modify the rules and/or equipment so that they are able to bring the sport down to their developmental level. Early specialization (Coté, 1999; Coté et al, 2007) has a high amount of deliberate practice and a low amount of deliberate play.

Ericsson et al (1993) studied musicians that had reached expert status in comparison with musicians that had not. The expert musicians had specialized in their instrument at age five and had committed over 10 000 hours (or ten years) of deliberate practice to their music. The non-experts had specialized later on, and approximately 7000 hours had been devoted to deliberate practice. Ericsson et al (1993) found that “the higher level of attained elite performance, the earlier the age of first exposure as well as the age of starting deliberate practice” (Ericsson et al, 1993, p.389). This theory has been proven correct in multiple sport studies, such as swimming and tennis (Russell & Limle, 2014). When looking through Ericsson’s lens, parental and/or athlete decision to specialize early makes sense because if the specialized training (deliberate practice) doesn't begin early, it might be too late for late bloomers to catch up (Ericsson et al, 1993). The problem with Ericsson’s conclusion is that it does not line up with the developmental stages recommended by the Canadian Paediatric Society and the American Academy of Paediatrics. Children would be required to work beyond what is prescribed as their cognitive/physical developmental level, which, according to Farrey (2008), Siegenthaler & Gonzalez (1997) and Turmen (2007), would result in frustration and potential burnout or dropout.
2.3.2 The Case for Early Sampling

Early sampling is based on activities that have two elements: 1) deliberate play, and 2) involvement in many sports (Côté et al, 2007). When children are involved in various sports, Côté et al (2007) found that the exposition to various cognitive, physical and psycho-social environments allowed young athletes to acquire more self-regulating and emotionally adaptive skills, which allowed them to adapt easier to their sport environment once they specialized later in life.

Farrey (2008) and Coakley (2009) explore Balyi’s concept of the Long Term Athlete Development (LTAD) model, which suggests that physical activity keep in context with a child’s psycho-social development. Unlike the cognitive/physical development stages outlined by the Canadian Paediatric Society (2011) and the American Academy of Paediatrics (2011), the LTAD takes into account the psychological development of the child in interaction with their social development. Farrey (2008) states that most athletes that achieve high status in athletics have participated in activities that coincide with their stage of psycho-social development. Early sampling plays into this, as engaging in deliberate play allows athletes to modify sports to fit their own developmental level (Côté, 1999; Côté et al 2007). Engagement in deliberate play builds the athlete’s passion for the sport, which then intrinsically motivates the athlete to improve skills and work towards high performance levels (Côté et al, 2007; Farrey, 2008). Therefore, passion plays a large part in the development of high performance athletes along the early sampling pathway. Farrey (2008) states that passion seldom grows from highly structured programs that are controlled by adults and focus on early specialization (Farrey, 2008; Croakey, 2009), but
rather in programs that emphasize deliberate play, for example, hockey programs that focus their practises on mini-games rather than skating drills.

Côté et al (2007) conducted a study on young elite ice hockey players. They found that the players that had spent more childhood time partaking in deliberate practice activities like dry-ice training (designed to improve skills) dropped out sooner than those who had not. Russell (2013) would say that this could have been due to the negative attitude towards sport that athletes seem to acquire when they specialize early. His research concluded that athletes that specialized early in their youth were less likely to participate in sport as an adult (Russell, 2013), but athletes that partook in early sampling experienced life-long fitness and well-being (Russell, 2013).

Although the case for early sampling is strong, many parents still choose to enrol their children in specialization programs. Based on the evidence, both paths can lead to the development of high performance athletes. It seems that the correct pathway depends on the type of sport and the individuality of the athlete.

2.4 The Effects of High Performance Athletics on Academic Success

Jacobson and Matthaeus (2014) and other recent studies (Keating, Casteli & Ayers, 2013) confirmed a “link between physical exercise and cognitive functions” (Jacobson et al, 2014). When it comes to academic achievement, there are benefits and consequences that involvement in high performance sports can lead to.

2.4.1 Positive Effects

Aristotle, Plato and Rousseau, all classical studiers of education, said that “the development of the body must balance the development of the mind” (Hills, 1998). Phys-
ical activity increases blood flow to the brain, which causes the brain to become aroused and stimulated more easily (Bailey et al, 2007), allowing for increased concentration (Bailey et al, 2007; Jacobson, 2014) and healthier minds. The higher the intensity of physical activity, the higher the mental alertness and enthusiasm to learn (Bailey et al, 2007). Two studies that prove this theory are the Trois Riviere study (1982) and the Biernakki study (1993). The Trois Riviere study tracked the academic achievement of 46 French Canadian students over six years. Different groups had added or decreased amounts of physical activity per day, with one group participating in none, one group strictly with the traditional physical education class, and one group spending 48 minutes per day with a physical education specialist. The third group proved to have higher grades than the other two (Stathakos, 1997).

The Biernakki study followed two grade three classes over three years. One class did aerobics every day for 50 minutes, while the other did not. This resulted in the aerobic class achieving higher grades in school and scoring higher on standardized tests (Stathakos, 1997). Studies following elite athletes under the age of twelve are needed to get a better understanding of the direct affect of high performance training on the grades of elementary school athletes.

High performance athletes show more cognitive maturity (Scanlan et al, 2006; Bailey et al, 2007) than competitive athletes, which Scanlan, Babkes & Scanlan (2005) concluded through their research of 13-year old national-level gymnasts who received straight A’s in school work and skipped a grade in elementary school. Bennet et al (2008) states that students training at high-performance levels in extra-curricular activities tend to have higher grades than those who do not. Additionally, high performance athletes tend
to have better behaviour, attendance and attitudes towards school (Bailey et al, 2007; Jacobson, 2014). Additionally, Jacobson (2014) found that athletes involved in sports with continuously changing environments (such as hockey or basketball) require creative thinking, which results in higher executive functioning. This means that athletes involved in individual sports did not test as highly on executive functioning tasks.

Lynn, Phlen and Kiker (1969) discovered that high performance athletes involved in team sports had an internal locus of control (meaning that they took responsibility for school outcomes, such as grades), while elite athletes that took part in individual sports had a more external locus of control (Kerr & Gross, 1997), and blamed bad luck for school outcomes.

2.4.2 Negative Effects

In 1990, Haynes explained that athletics may be to blame for low literacy and mathematical scores among high school and university students, primarily those involved in football and basketball. He also stated that the academic achievement of some student-athletes involved in sports other than basketball and football were above average. The time commitments associated with high performance athletics, due to dedication and practice time, could result in lower grades at school (Merkel, 2013). Since 1990, programs have been put in place to assist student-athletes in their academic achievement (see 2.5). However, more research should be done in regards to elementary school children that are pulled out of school for elite gymnastics, hockey, piano or dance lessons, and the effects that such time spent away from the classroom has on the students grades.

There seems to be much research about the positive and negative effects of high-performance sport on academic success in both secondary and post-secondary student-
athletes, however there is little to be found concerning those that are under the age of 13. This makes little sense, considering the struggle to balance school with athletic commitment at the high-performance level remains the same regardless of the age of the student-athlete. Since elementary years seem to see the base-level development of characteristics such as time management, procrastination, dedication and responsibility, more studies are needed in this area.

2.5 Collegiate Athletics: Raising the Academic Standard

If professional athletics is the ultimate goal, then one of the most direct routes for many types of sports is through post-secondary athletic programs. Most American universities with worthwhile sport programs are members of the National Collegiate Athletic Association (NCAA); an organization that governs the regulations of post-secondary athletics. In the past, the NCAA institutions seemed to take little interest in their athletes’ grades, and focused primarily on athletics. However, a recent shift in focus now has the organization “dedicated to safeguarding the well-being of student-athletes and equipping them with the skills to succeed on the playing field, in the classroom and throughout life” (NCAA, 2015). The organization has created “firm standards” for the institutions that have membership, regarding their student-athletes’ academic performance (Bennet et al, 2008). In order for a student-athlete to be eligible to participate in athletics, they must meet certain GPA and course requirements. Unlike the past, student-athletes must enrol in “real, matriculating classes, not fluffy electives that earn no credits towards degree requirements” (Holsendolph, 2006, p. 2). Additionally, many teams now hold student-athletes accountable for their grades, and may lose eligibility to participate if they fail cour-
For teams in the Division 1 category, the NCAA releases an Academic Progress Rate (APR) to each team, outlining whether or not they are keeping up with their grades and on track to graduate. If half of the team is off track, the entire team is ineligible to continue (NCAA, 2015). This holds each student accountable for their course work and academic success, and may dictate how far they will be able to go in collegiate athletics. McElroy, the director of intercollegiate athletics at Georgia State University, says that high school academics and SAT/LSAT scores are greatly taken into consideration when recruiting athletes, due to the new programs through the NCAA (Holsendolph, 2006). Hosick (2012) of the NCAA noted that in 2016, the GPA for initial eligibility into an NCAA athletic program out of high school will be increasing by 0.3 (Hosick, 2012). It is evident that athletic ability is no longer enough to get a student-athlete through an NCAA athletic program, and that academics is beginning to hold higher status in the organization.

The Canadian Collegiate Athletics Association (CCAA), a similar organization operating in Canadian universities, also holds student-athletes accountable for their grades in order to participate in athletic programs. The CCAA offers prestigious awards recognizing student-athletes for high achievements in academics and athletics simultaneously (CCAA, 2015).

In order to assist post-secondary student-athletes balance academics and athletics, new programs have been put in place that reward sports teams for high academic achievement (Burnett et al, 2010). In order to keep grade levels up, thus ensuring that student-athletes are able to graduate if they are not offered a spot in a professional league, universities have created assistance programs for athletes (Burnett et al, 2010). These programs are...
individually designed to meet the needs of each student-athlete (Holsendolph, 2006).

Each program offers academic assistance, time management assistance and weekly monitoring of class status (Holsendolph, 2006).

Some sports, such as gymnastics, figure skating, dance, cheerleading and tennis, are not part of the NCAA, however collegiate-level teams and clubs in such sports are frequent and also offer routes to professional status. In order to participate, however, the student-athlete must first be accepted into the post-secondary institution so grades are still in high demand. This creates a gap in the research. Parents are enrolling their children in specialized or sampled programs in order to improve skills, with the hopes of being selected to participate in NCAA, CCAA or other post-secondary athletic programs, in order to have a chance at professional athletic careers. McElroy proves that in today’s society, the competition for college athletic scholarship or participation is not only athletic, but also academic. If academia now plays such an important role in the road to professional athletics, then why are there not academic assistance programs in elementary and secondary schools similar to those in the post-secondary institutions? Research is needed in this area.

2.6 Summary

As argued by Bennet et al (2008), students that are training in athletics tend to have higher grades in school. The combination of high concentration (Bailey et al, 2007; Jacobson, 2014), cognitive maturity (Scanlan et al, 2006), strong executive functioning (Jacobson, 2014) and internal locus of control (Lynn et al, 1969) that team sports and training provides, seems to equip young athletes with extra tools to achieve higher in academics. Depending on the age at which they started, and whether they are partaking in
physical activities that are in synch with their level of psycho-social development (Farrey, 2008), athletics seems to have a positive effect on an athlete’s school success.

The problems seem to arise when parents and coaches push young athletes outside of their level of psycho-social (Jacobson, 2014), or cognitive/physical (American Academy of Pediatrics, 2011; Canadian Pediatric Society, 2011) development, depending on which outline is being used. The coaching education and tactics, parental influence, focus on winning, and age of specialization may effect the young athlete’s academic achievement in a negative way.

Since the research shows that parents continue to enroll their children in specialized programs (Russell & Limle, 2014), and continue to promote the importance of winning to hopefully be recognized by a post-secondary institution (Hyman, 2012), then we need to learn more about how to work collaboratively to support student academics while enabling them to participate in high performance sport. The NCAA’s decision to weigh academics with athletics as part of recruitment, and to recognize teams for their academic achievement, should inspire schools to create assistance programs for elementary and secondary school athletes aspiring to participate in collegiate-level athletics. Research on such programs would fill the gap between what is known about youth academics versus athletics and what is known about college academics versus athletics. Through my own research on the perspectives of teachers on these issues, insight will be gained on ways to help young student athletes see success athletically and academically, as well as on how parents, teachers and coaches can come together to help student-athletes balance both school and sports.
Chapter 3: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter I describe the research methodology. I begin by explaining my research approach and procedures and then explore the instruments of data collection. I then elaborate on the participants, recruitment and sampling criteria before looking at data analysis and reviewing the ethical procedures used for my study. Lastly, I review the limitations and strengths of the study before giving a brief conclusion of my methodological decisions and my rationale for these decisions.

3.2 Research Approach & Procedures

I conducted qualitative research in order to learn more about teachers’ perspectives on the academic achievement of elite child athletes, and how these teachers accommodate these students and their athletic schedules. Using a qualitative research approach allowed me to access and interpret “participants’ feelings, perceptions, experiences and thoughts about the question” (Ivey, 2012), as opposed to measuring them (Johnson and Waterfeild, 2004). A qualitative research approach allows researchers and participants the opportunity to reflect on their own beliefs and perspectives (Nassaji, 2015), which is relevant to my study because it focuses on the perspectives of the teachers on this topic in light of their lived experiences.

An initial literature review was conducted, and then kept current by continuing to update the review with any new literature encountered throughout the process. This was done on a regular basis throughout the length of the study. This ongoing research was
necessary because the conversation on this topic is relatively new and therefore is constantly evolving. Data was collected through the use of a semi-structured interview protocol (see Appendix B).

3.3 Instruments of Data Collection

This research study is based on the following data: a review of the literature in the field to better comprehend the current conversation on this topic, as well as three semi-structured interviews with elementary teachers, each with different backgrounds, perspectives and places of work. The interviews were recorded using a digital voice recorder, and then were transcribed, coded and interpreted for themes.

Baumbus (2010) defines semi-structured interviews as “a set of open-ended questions” allowing for “spontaneous and in-depth responses” (p.255). Although this type of interview follows a general outline of questions (to stay on topic), it allows for conversation to sway off of the anticipated path should an interesting point be introduced. Since I am focusing on the perspectives of teachers, it was important to use an interview protocol that allowed for reflection and opportunity to articulate views and beliefs on the topic. This type of interview aligned well with the qualitative research process that I used by allowing both the researcher and the participant to reflect on their personal and professional beliefs during the interview process instead of only answering a pre-set list of questions and silencing any additional conversation.

3.4 Participants

In this section I review the sampling criteria used to select my participants, as well as the procedures I used to recruit them. I will then introduce each of the three participants.
In order to learn about the elementary teachers’ perspective on the effects of high-performance sports on students’ academic performance within the classroom, as well as the strategies teachers use to accommodate student-athletes, it was important that I interview elementary school teachers that had experience teaching student-athletes throughout their career. My participants were selected using the following criteria:

- The participants needed to be certified elementary teachers in Ontario, teaching grade 8 or lower. For the purpose of this study, the length of time working as an elementary teacher was not a concern because the purpose was to learn more about teachers’ perspectives on the academic performance of these students in their classrooms and their accommodation practices, regardless of how experienced the teacher was. The reason why it was important that teachers be teaching grade eight or lower was because my study focuses on students under the age of 13. Each participant needed to be certified elementary teacher in Ontario because it was important to me that I be able to contextualize participants’ accommodation practices within current policy priorities in the formal Ontario education system.

- The participating teachers needed to be either currently or have experience working with students who engaged in high-performance athletic training outside of school. There was no minimum number of students that the teacher must have worked with, as long as the participant felt confident speaking to the differences they perceived between high-performing athlete students and non-athletic students. This could have included a single student in their present day classroom or multiple students over many years of teaching. It was also important that participating teachers be accommodating
or have accommodated) high performance athletes within their classrooms, because I was interested in focusing on how they do this.

It was important that participants have prior involvement in some sort of extracurricular sport themselves, whether it be coaching or demonstrated commitment to supporting student athletes. This helped ensure that participants’ were knowledgeable about what is involved in youth athletics and were able to speak to a range of consideration surrounding the topic.

3.4.2 Sampling Procedures

To recruit participants, I used convenience sampling by contacting friends of mine that are currently working in the education field and/or high performance athletics field. I then asked all of these contacts to distribute my information to their co-workers and friends who they felt would fit my criteria. Additionally, I approached the parents of athletes that I coach myself, and explained my study to them. These parents then went to their child’s elementary school teacher to distribute my information, since many of these athletes’ teachers would fit my criteria.

Instead of asking for potential participants’ to supply me with their contact information, I supplied them with my email address and waited for their reply. This made sure that any response was voluntary and not made to be felt obligatory. When I began getting
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Responses, I selected the three participants that I felt would best be able to speak to the issues in the study.

### 3.4.3 Participant Biographies

**Howard**

Howard was a grade 4 teacher who taught math, science, gym and art. An avid golfer, Howard spent his after school hours coaching the school volleyball and track and field teams as well as attending school council meetings. He also self-identified as the school’s “unofficial IT Person” and spent a lot of time fixing technology problems that commonly arose during the school day. With a strong background in athletics, Howard took special interest in the student-athletes in his classroom.

**Laura**

Laura was an eighth grade teacher of language, science, and math working in the same school board as Howard. Laura coached the school cross-country and volleyball teams and ran leadership programs for the grade eight students. She also organized school events such as the Terry Fox Run or Christmas drives/concerts. Laura graduated high school from a high-performance sports program in the private school system where she focused on swimming and girls hockey. Her fourteen years teaching the eighth grade has exposed her to many high-performance student athletes including many that have made professional careers out of their sport of choice (including current NHL athletes).

**Jennifer**

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Jennifer was a recently-graduated prep teacher. Jennifer who taught gym, health and art to grades 1-8. She also coached the school’s Intermediate Co-Ed volleyball team, junior girls basketball team and track and field team. Her youth involvement in a variety of competitive sports (gymnastics, volleyball and swimming) led her to take an interest in the development of students that partake in competitive and/or high-performance sports outside of the classroom.

3.5 Data Analysis

Once the interviews were transcribed, I analyzed the data and looked for themes that rose as relevant to the research questions. According to Nassaji (2015), qualitative data analysis consists of interpreting reoccurring themes, concepts and patterns that come forward from the data collection. This allows the researcher to “gain further insights” (p. 130) into their data and to organize it in a way that is easily comprehendible for the reader. By analyzing and interpreting the data collected in this study, I was able to draw conclusions in response to my research questions.

My process of data analysis began by coding each transcript and then clustering data into categories. From there, I identified themes that responded to my research questions. I also paid careful attention to null data and to data that spoke to themes beyond the initial research questions. In the end, I identified 5 themes (see Chapter 4).

3.6 Ethical Review Procedure

All teachers who participated in this research study were given letters of consent as part of the interview process (Appendix A). The letters were read and signed by each
teacher in order to give them a better understanding of the terms of the study. One copy of the letter was kept by each participant and I kept a copy for my own records. Participants were invited to choose a time and location for the interview convenient for them outside of school hours. All information regarding consent, content and confidentiality was given to each participant, and a high degree of effort was made to ensure the comfort of each participant. There were no known risks or conflicts of interest involved with participation in this study.

Before beginning each interview, I reviewed the topic with the participant. I also explained that they were not obligated to answer any question that they did not want to, and could refrain from answering if they chose to do so. They were informed that they could revise their responses, as well as decide to refrain from including their data in the study at any point throughout the research process. Procedures were conducted in the manner outlined to each participant in the consent forms that they had signed. No changes were made to these procedures. Pseudonyms were used to mask any information that may compromise the anonymity of the interviewees and all specific information about any individual was either omitted or altered to protect the participants’ anonymity.

All data was stored on my password-protected computer for the duration of the study, and the only person that had access to it was the course instructor. Participants were informed that the data would be destroyed after five years.

3.7 Methodological Limitations and Strengths

The research study had various limitations and strengths. One of the limitations to this study was the fact that my sample size was so small. Although I was able to cover
multiple perspectives, there are many perspectives that were left out of this study such as parents, student-athletes, coaches and administration. The study focused on participants with a strong background in athletics, and therefore the voice of the non-athletic teacher was silenced in this study. Given the time constraints, only 15 interview questions were developed, which left certain areas of study unexplored in the interview process, such as the differences between certain sports (i.e. leanness sports versus contact sports), how different sports may effect children in their academics, or whether team versus individual sports are more beneficial academically. These areas are in need of further research in the future. However, I feel that the questions I selected were strong as far as achieving the goal of the study, which was not to make broad generalizations about the topic but rather to inform this area of education and my own future practices as both teacher and coach.

Throughout the process, I acquired many research skills such as developing and asking meaningful questions, conducting a review of the current literature and recognizing limitations in my work, which will undoubtedly help me in my next stages of teaching practice.

Another limitation present was the range of resources used to inform my study. Although I selected meaningful, recent and research-based literature, there are most likely some resources that were overlooked. In the future, I would aim to have a literature-base that focused on one particular sport, rather than a broad array of athletics and I would select a smaller age bracket, rather than including research of all ages. I would do so because throughout my research I have learned that it is difficult to group all athletics, and all ages, together since each sport and age of athlete differs in training style, hours committed, levels of competitions available and mental and physical strain. Lastly, the
limitations on the type of participants that I could interview was a hindrance to my study. I would have liked to interview parents and students in order to get a more detailed understanding of the topic, but this was not permitted within the scope of the ethical protocol of my graduate program. Additionally, I was limited to using a single research method (interviews). Conducting observations on the students both in the classroom and in training would have further informed my study. Surveying multiple teachers across Ontario would have enabled my research to include quantitative aspects as well, such as average grades in athletes versus non-athletes.

3.8 Conclusion

In this chapter, I outlined the methodological decisions I have made for my research study, including the sampling procedure, participant criteria, research approach and ethical procedures. I also reviewed procedures for data analysis, the benefits of semi-structured interviews and explored the limitations and strengths of my study. In the next chapter (Chapter 4) I report the research findings and explain their significance in relation to the literature.
4.1 Introduction to the Interviews

This chapter reports the findings from three face-to-face semi-structured interviews that I conducted between September and October 2015. Each interview was roughly 35 minutes long and followed the order of interview questions outlined in Appendix B. Interviews focused on the perspectives of these teachers on the influences of high-performance sport training on students’ academics. In this chapter, I report the findings from the interviews and speak to their significance in light of the literature reviewed in Chapter 2.

To protect the anonymity of the participants, I have assigned each teacher a pseudonym which will be used for the remainder of the chapter. Additionally, the names of schools, students or institutions will not be used. After analyzing the interview transcripts and engaging in the coding and categorizing process, I identified five themes that offer responses to my research questions. Principally, these include attention to: (1) Teachers’ athletic background informed their understanding of the needs of student-athletes and how to accommodate them in the form of time adjustments and modification of assignments, (2) teachers more commonly spoke about their perspective on the relationship between participation in competitive play-based sports and academics rather than high-performance athletes, (3) Participating teachers were in favour of increasing the weight of academics in post-secondary applications, but they are less confident that in-school accommodation programs benefit student-athletes at the elementary level, (4) Teachers believed that the benefits of high-performance sport training outweigh the consequences within the elementary school classroom, and (5) Teachers reported that parental involve-
ment in schooling was typically stronger for athletic students, but they believed that this involvement could have both positive and negative impacts for students. Although the participants had differing and nuanced views on some of the pertinent themes that arise, the underlying attitudes towards the importance of the study were similar, and each teacher felt there was a need for further research in this area.

4.2 Having a background in athletics allowed teachers to better relate to and understand the needs of their high-performance athletic students, and this informed their approach to accommodation in the form of adjustments to timelines and modification of assignments.

Although each participant had different foci in their current teaching, all three had a similar background in athletics in that they all participated in competitive and high-performance levels of sport themselves. While Howard and Laura focused on high-performance levels of hockey throughout their childhood and into their teenage years, Jennifer explained that her athletic journey began in the leanness sport of gymnastics and then transitioned into volleyball. Since all three participants also self-identified as experienced in successfully teaching and accommodating high-performance athletes, it is important to further consider how teachers’ own background in sports informs their commitment to supporting the academic success of student-athletes. When asked about how he accommodates student-athletes that are dealing with the balance of school and sport, Howard repeatedly emphasized how he “got” it because he had similar experiences as these students and consequently understood the struggle in succeeding both in the class and in the sports arena. In particular, he also explained that he tends to have stronger rapport with
his high-performing hockey player students because of their shared understanding of par-
ticular aspects of hockey culture, including the use of sarcasm and humour. If teachers are
more empathetic to the learning needs of high performance athletes based on their own
personal experience with athletics, this raises questions as to how to develop similar un-
derstanding from teachers who do not share this common background with students. Sim-
ilarly, Jennifer sympathized with gymnasts in her classroom who had to wake each morn-
ing for 6am practice before school because she herself had to do the same. Having expe-
rienced the same situation, Jennifer was able to relate to these students and understand
their accommodation needs.

There were two principal ways that these three teachers accommodated high-per-
formance athlete students. First, they accommodated student-athletes by adjusting time-
lines, and second, they modified assignments. Contrary to the views of Haynes (1990),
from these teachers’ perspectives student-athletes require extra support on activities com-
pleted outside of school hours (i.e. projects, assignments, homework, studying) rather
than, for example, on math and literacy assessments completed within school hours.

4.2.1 Teachers Adjusting Timelines to Better Suit Student Schedules

All three participants agreed with Merkel (2013) that the high level of commit-
ment to high-performance sports training requires students to miss school for training and
competitions. At the same time, both Howard and Laura felt that students’ training sched-
ules outside of school hours left them little time to complete homework or assignments.
The main way that teachers alleviated stress was to adjust the timeline for completion of
assignments for student-athletes. These students were given extra time to hand in assign-
ments or homework that was intended to be done outside of class. Jennifer felt that this
could sometimes come at a price to the teacher, however, because allowing more time for some students often required the teacher to go over lessons with the student in order to catch them up in class.

Although Howard understood the struggle of scheduling time for homework during the hockey season for his students, his personal experience as a student-athlete made it clear to him that there are other ways for these students to get their homework done on time, including for example by reading in the car or bus on the way to practice. Although he adjusted timelines when students were feeling pressure, he often told his students: “... don’t come to me and tell me that you’ve had a three hour practice last night [and were unable to complete your homework], because I could tell you exactly where you could have still found time for homework”. In this way, Howard applied his understanding of their situation to accommodate their needs, but also presented realistic suggestions for them and discouraged students from taking advantage of his kindness.

4.2.2 Teachers Modified Assignments to Better Suit the Needs of student athletes

Laura and Jennifer commonly accommodated high-performance athletes by modifying their assignments. Based on her own experience as a student-athlete, Jennifer understood that organizing schedules in order to take part in group projects can be near impossible for athletic students, which is why she allowed students to complete group assignments individually with the appropriate changes (i.e. single-student work load instead of a group work load).

Laura related the accommodations she made for student-athletes to the accommodations she made for students with IEPs; they complete similar tasks but the final product is marked through the lens of their abilities and by keeping in mind the stress level that
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students are subjected to. Howard, however, chose not to modify assignments, insisting that “the expectations are the same”. He believed that high-performance student-athletes are used to high expectations and to having a large amount of pressure on them to reach these expectations. He argued that the timelines and due dates can be altered, but every student still has to “get the work done”.

Both Merkel (2013) and Haynes (1990) address the common issue of low academic performance in the school/sport balancing act that high-performance elementary student-athletes are involved in. Although participants recognized this reality, their personal experience as athletes enabled them to invest extra effort on their part in accommodating these students. Through timeline shifting and assignment modification, it seems that teachers with a background in athletics are able to help current student athletes see success. The problem seems to be, however, that not all teachers have a background in competitive or high-performance sports. Howard explained that some athletic students requiring accommodations like these are not fortunate enough to be under direction of a teacher that understands their schedule. He felt that it was unfair that one student-athlete be accommodated because his teacher “gets it”, and another not being accommodated because his teacher does not. He believed that it was consequently important that schools create standard and clear guidelines for unexperienced teachers that find themselves with student-athletes in their class, and that these teachers be provide with more information about the struggle of balancing academic and athletic performance. One area of research that may be important to look further into is the extent that teachers without athletic backgrounds are implementing accommodations for student athletes in their class, and to see if any such guidelines factor in to their decision to do so.
4.3 Teachers more commonly spoke about their perspective on the relationship between students’ participation in competitive play-based sport and academic performance more so than high-performance athletics.

Although the research study had a main focus on elementary high-performance athletes, it became clear that the chances of teachers experiencing such a student in their class were slim. As mentioned in Chapter 1, for the purposes of this study a high performance athlete is one that is competing the highest possible level of division for their age, while training a minimum of 12 hours per week, while a competitive athlete is one that is still involved in competitive sport but at a lower level or training less than 12 hours per week. Each research participant has had various encounters with high performance athletes in their classrooms, but all three teachers made note of the unlikelihood of teaching such a student. Laura, for example, explained:

It is very common [for me] to have students that play rep [competitive] sports who may miss the odd school day throughout their sports season opposed to high performance athletes who miss a lot of schooling or have special permission to accommodate their work due to being absent for specific days or times, for example, afternoons or mornings. I can only think of one student recently, who was a high performance dirt biker and missed a lot of schooling because of travelling to other provinces and other countries.

Similarly, Howard and Jennifer explained that in their years of teaching they have experienced years that saw classes full of competitive athletes, but only two or three of high performance status. Although the American Academy of Pediatrics (2000) discusses the increasing frequency of children becoming involved in high levels of sport at a young age, the data collected aligns with Hyman (2012) and Lumpkin (2013)’s research report-
ing that high-level athletes usually have some sort of genetic advantage (i.e. flexibility, height, strength) that allows them to achieve more athletically. These sorts of genetic advantages are not common among the general public, which would explain why only select students are engaged in high performance athletics at a young age. Additionally, the commonness of competitive athletics among children reflects Hyman (2012)’s notion that most parents waste no time in enrolling their child in competitive sport in order to maximize their child’s deliberate practice in a specialized sport, with hopes of reaching high performance levels (Coté et al, 2007). The data aligns with the reality that although many students can attain a competitive sport level, only select few (perhaps with genetic advantages) can achieve high performance sport level.

It was noted by all three participants that the academic performance of competitive level athletes was similar to that of high-performance athletes in their classrooms, and Howard mentioned that he was able to hold “higher expectations for most athletes [regardless of their training level]”. Although this contradicted research put forth by Scanlan et al (2006), which found that high-performance levelled athletes have better determination and work habits when accomplishing academic tasks than lower levelled athletics, it spoke to the benefits of general sport involvement among children (see 4.5 for a more detailed breakdown of the participants’ views on the benefits of sport involvement). Additionally, Jennifer mentioned that she saw an increased confidence to take risks in the classroom in students that participated in competitive team sports. The encouragement of a team, according to Jacobson (2014), allows children to feel secure in vulnerable situations that they might otherwise back away from. Although Jennifer did not elaborate on the direct links between this confidence and student learning, it can be inferred that the
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competitive team athletes in her class were successful academically because they felt that they would be supported even if their risk-taking lead to failure.

Interestingly, all three participants mentioned that the most common sport that they see within the classroom (at both the high performance and competitive level) was hockey, and high-performance athletes in sports like gymnastics or track and field was uncommon. Coté et al (2009) might interpret this as a case for deliberate play in relation to Farrey (2008)’s notion of passion as intrinsic motivation to excel in a sport. Hockey is a sport that can take many forms of deliberate play (mini-games during practices, field hockey, street hockey, ball hockey, hockey cards, table hockey, mini-sticks, video games, etc), and participation in these forms of hockey-play likely spark early interest in many children. The interest grows into passion, which then motivates young athletes to devote themselves to the sport. The popularity of hockey and hockey-play is directly reflected in the amount of students engaged in competitive and high performance hockey outside of the classroom. This speaks to Coté et al (2009)’s argument for deliberate play as a tool to develop intrinsic motivation in organized sports, since more students seem to be at higher levels in hockey than in deliberate practice-based sports such as gymnastics or track and field. Based on this result, it may be worth while to look into which types of sports programs focus on deliberate play during practices (for example, mini-games rather than skating drills) and how children benefit from this type of training athletically and academically.
4.4 Participating teachers were in favour of increasing the weight of academics in post-secondary applications, but they are less confident that in-school accommodation programs benefit student-athletes at the elementary level.

Participants had similar views on the increase of the weight on academic grades in post-secondary sports programs. Both Howard and Laura spoke to Holsendolph (2006)’s notion of probability; that students (and institutions) need to recognize the slim chances of going professional in sports, and that it is crucial that they have a solid education to fall back on. Additionally, Jennifer brought up the fact that intense post-secondary athletic training may cause injury to students, limiting their future in their sport. She felt that it was important that institutions take this into consideration by providing students “something to fall back on” should they be unable to continue training. With elementary teachers in support of higher academic demands for student-athletes in post-secondary, the question raised is this: if students are now competing academically for spots on post-secondary sports teams, and research has found that work ethic develops during elementary school, then how might elementary schools and teachers more intentionally accommodate the learning needs of student athletes?

Due to the low percentage of students that qualify to be considered high-performance in elementary school, participating teachers agreed that in-school accommodation programs may not be effective. Although many children miss the odd day for training or competitions, all three participants agreed that the effort and funding required to put together an elementary accommodation program within the school would not be worth it because, as Howard stated, “it is working now”. He believed that the accommodations that individual teachers are making within the classroom are likely substantial enough in
helping students see success because, as Laura put it, “the students who are high-performance in athletics are usually above average in grades”. As mentioned before, the only idea for change that was generated by the participants was a school-wide set of guidelines to help teachers with non-athletic backgrounds better accommodate the needs of these students.

Howard also mentioned that even if a student was high-performance, rarely do they miss enough schooling to fall behind during elementary education. He felt that it was important to keep in mind that the elementary curriculum is less fast-paced and complex than that of higher education levels, which is why in-school accommodation programs in high school or university are more in demand. This could explain why, as mentioned in Chapter 2, there is little research on the effects of such programs in elementary school compared to high school or post-secondary. Even though Martens (1993) defines organized youth sports as a “double edge sword” if not balanced properly, it seems that, through accommodation, some elementary teachers are working to maintain that balance.

4.5 Teachers believed that the benefits of high-performance sport training outweigh the consequences within the elementary school classroom.

Throughout the interview, each participant spoke to the benefits of student involvement in high performance athletics. Howard and Jennifer reflected on the benefits they experienced themselves during their years as high performance athletes which included mental and social development and responsibility. According to Laura, involvement allows children to become more than “one-dimensional in their thought process” through involvement in team sports that require cooperation and teamwork. Her opinion
aligns directly with Jacobson (2014)’s study that found students participating in team sports display deeper thinking and score higher on executive functioning tests.

While Laura focused on the benefits for higher order thinking, Jennifer emphasized the improvement of work ethic that she saw in her high performance student athletes over the non-athletes. She found that athletic students tended to be more comfortable with “honesty, values, fair play, respect and adherence to rules,” as well as how to cope with both success and failure. She also mentioned observing a higher level of “self confidence, peer-relationship and positivity” from high performance student-athletes. Howard’s assertion that school life would “be better if everybody did [high performance sports]” reinforces the conclusions made by Scanlon et al (2006) in their study on high performance gymnasts, where they found that the exposure to high demands, competition and intense training built work ethic and confidence, resulting in higher academic success.

As mentioned in Chapter 2, more research is needed on the negative consequences on academics in result to sports training in children. However, Howard and Laura did mention the extremity of high performance athletics as a potential negative influence on a child. Although they did not go into detail, they suggested that the potential negative effects may include overuse of muscles/bones (American, Academy of Paediatrics, 2011), body image/eating disorders in leanness sports (American Academy of Paediatrics, 2011), inappropriate age instruction (Merkel, 2013) and negative parental behaviour (Gonzales, 1997). It is important to note, however, that a bias towards youth sports is evident in this group of participants as all three continuously reminisce on positive experiences they had throughout their own lives. More research is needed into the
opinions perspectives of teachers with non-athletic backgrounds on both the positive and negative effects of high-performance sports training.

4.6 Teachers reported that parental involvement in schooling was typically stronger for athletic students, but they believed that this involvement could have both positive and negative impacts for students.

Siegenthaler and Gonzalez (1997) stated that the most negative aspect to come out of children’s organized sports was parental behaviour at games and practices. The stress that parents place on their athletic children is undoubtedly a concern throughout the literature. Participants in this study found that in terms of parental involvement in children’s academics, parents can be both negative and positive influences. The teachers felt that it depended entirely on the parent and was different from student to student. More often than not, they reported that the parental perspective on academics is positive. Howard stated that the “parents are usually supportive” and “always involved when their child is in competitive sports”. Jennifer noted, however, that although parents of student-athletes are more present in the classroom than those of non-athletic students, the effect was not always positive. She referenced an experience where the “parents did not value education at all”, which resulted in the student believing that “he didn't need any education because he was going to be a professional [athlete]”. Howard also mentioned that the benefits of the sport may be thwarted if the child is partaking in the activity for the parent’s sake, aligning with the American Academy of Pediatrics’ view on the potential harm caused by parental pressure in organized sports (2011).
All three participants touched on the idea of bribery as a parental tactic to pressure their children to excel in school. Teachers found that many student-athletes will often strive for high marks, and usually succeed, because their parents have set grade standards that must be met if the student wishes to attend their athletic training. Additionally, Howard mentioned that some extracurricular sports teams hold grade expectations much like teams in post-secondary institutions. These teachers felt that the bribery tactic had both a positive and negative influence; students are motivated to work hard in school and achieve academic success, but their motivation is extrinsic. This data leaves a few questions unanswered: do intrinsically motivated student-athletes excel more after they have graduated than extrinsically motivated student-athletes? What are the consequences of bribery for student athletes and their chance for success in post-secondary athletics?

4.7 Conclusion

In this chapter, I discussed the five themes that arose from the data collected during the coding process. The findings of the study aligned with Merkel (2013) that high-performance student-athletes miss school due to their commitment to training and competing, however it was found that contrary to Haynes (1990), students require accommodation on schoolwork completed outside of the classroom rather than in-class work. Additionally, the study found that the enrolment in competitive sports seems to be higher than the enrolment in high-performance sports, which supports Hyman (2012) and Lumpkin (2013) idea of genetic advantages in athletics. The study also found that teachers find the benefits outweigh the consequences for the academic achievement of students involved in competitive and high-performance sports, supporting research by Scanlon et al (2006) and Jacobson (2014). In alignment with Coté et al (2007), the study found that
deliberate play-based sports are seen more frequently at the competitive (or higher) level in classrooms, speaking to the benefits of deliberate play over deliberate practice-based sport programs. The study brings new information to the conversation on this topic, that is, while teachers support the increased weight of academics in the post-secondary athletic field, they do not support the addition of school-based accommodation programs for elementary athletes. Lastly, the study found that parental involvement is stronger in the lives of high-performance student-athletes, but this involvement can have both positive and negative results. In Chapter 5, I speak to the implications of these findings for the educational community as well as for my own teaching practice, and I conclude by making recommendations and identifying areas for further research.
Chapter 5.0: Implications

5.1 Introduction

In this chapter, I begin by summarizing the key findings discussed in Chapter 4. I then discuss the implications of the research findings, or the educational community and for me as a beginning teacher. I identify some recommendations for the educational community based on what I have learned, and then determine areas in need of future research. The chapter will conclude with some comments on the significance of the research findings, and for whom they impact in both the short and long term.

5.2 Overview of Key Findings and their Significance

The study concentrated on the data accumulated through three face-to-face semi-structured interviews. Each participant, all elementary teachers in various school boards, self-identified as having experience working with student-athletes that would classify as high-performance based on the criteria discussed in this study; (a) the athlete competes at the highest athletic level available to their age group, (b) trains a minimum of 12 hours per week in a single sport of choice (please see Chapter 1 for a detailed breakdown of this criteria). Each interview revolved around the guiding research questions of the study:

- How do a sample of elementary teachers perceive the relationship between students’ participation in high performance athletics and their academic achievement?
- How do these teachers modify their instruction to accommodate the learning needs of high performance athletes and why? What range of factors and resources
do these teachers believe support these students’ capacity to maintain strong (and simultaneous) athletic and academic performance?

- What range of factors do these teachers believe hinder these students’ capacity to maintain strong (and simultaneous) athletic and academic performance?

Once the transcribed data had been analyzed and coded, I identified five themes that responded to these research questions.

The first theme evident was that these elementary teachers’ personal background in athletics informed their understanding of these students learning needs and informed their accommodation practices focused on adjusting time and modifying assignments. Teachers felt that they could better relate to student-athletes’ needs than a teacher with little or no athletic background. Although Haynes (1990) argued that student-athletes needed more accommodation on activities completed within the classroom, participants in this study found that student-athletes require accommodations principally for the types of activities expected to be completed at home. Whilst supporting Merkel (2013)’s notion that high levels of commitment may require athletic children to miss school, from these teachers’ perspectives the bigger problem is that training schedules after school hours limit the time students have to work on homework and assignments. As a result, participants agreed that timeline flexibility and assignment modification were necessary. They also agreed that their heavy background in athletics themselves allowed them to better understand what sort of accommodation was needed for these students.

In the second theme I reported that it was more common for teachers to see competitive-level athletes in their classrooms rather than high-performance athletes (for a detailed explanation distinguishing the two, please refer to Chapter 1). This data aligned
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nicely with Hyman (2012) and Lumpkin (2013)’s argument that to reach an expert level of sport usually requires a genetic advantage that may not be common, meaning that only few children have the physical ability to be classified as high-performance. It was also found that hockey seemed to be the most frequent competitive and high-performance sport played in all of the participants’ classrooms, which could be interpreted through the lens of Coté et al (2009) as a product of the various forms of deliberate play associated with hockey/hockey practice.

Thirdly, teachers were in favour of increasing the weight of academics in post-secondary athletic scholarship and team acceptance. However, due to the low percentage of elementary students enrolled in high-performance athletics, participants agreed that in-school accommodation programs would not be cost efficient or worthwhile at the elementary school level.

The forth theme focused on teacher perspectives on the benefits of participation in high-performance sports. The teachers agreed with Jacobson (2014) that involvement in team sports can result in higher executive functioning and deeper thinking, as well as Scanlon et al (2006)’s study which concluded that intense sports training builds confidence and a strong work ethic. All participants argued that high-performance sports training has a positive effect on elementary students’ academics most of the time.

Finally, the fifth theme focused on participant perspectives on the role of parental involvement. In agreement with Siegenthaler and Gonzalez (1997), participants explained that some parents have a negative impact on their child throughout sports training. However, the study found that more often that not, these teachers viewed parental influence in athletic children as supportive and positive. These teachers felt that parental involvement
was far superior in the lives of high-performance athletes than other children; and the effect of that influence varied from student to student and was not always positive. Next, I turn to the implications of these research findings for the educational community before focusing on what they mean for my own teaching practice.

5.3 Implications

The findings have a range of implications for educational stakeholders and for my own identity and practice as a beginning teacher with an athletic background. I begin by speaking to the range of implications for an array of educational stakeholders.

5.3.1 Implications for the Education Community

It is evident, after examination of the themes and findings, that the implications of the study impact three principal stakeholders: (1) the educational school system (teachers, administration), (2) parents of children involved in sports and (3) coaches, directors, trainers and other leaders of organized sport programs. These three areas should intertwine seamlessly to aid in the development and success of high-performance student athletes; each one a pillar in the balanced construction of confident and well-rounded youth.

Primarily, the results speak to the personal experience of the teacher as an agent of accommodation. Merkel (2013) and Haynes (1990) expressed concerns in the school/sport balance that student-athletes are subjected to, mentioning that the result of such stress may be at the expense of academic achievement. Unfortunately, the accommodation put in place to aid in this struggle seems somewhat dependant on the bias of the classroom teacher’s personal views on athletics. As Howard, Laura and Jennifer argue, proper accommodation for students involved in high-performance sports training seems to rely on the background of the teacher. This creates an inequitable experience for stu-
dent-athletes who have little say over which elementary school teacher they have; while some students may receive accommodation in timelines and assignments, students in other classes may not have that privilege. Since the study found that the percentage of high-performance athletes in elementary schools is small, participants were eager to point out that competitive level athletes may also require accommodation as well. Unfortunately, not all teachers can relate and understand student-athletes’ needs, and may not be as quick to recognize athletics as a reason to accommodate a student. This leaves a gap in the opportunities for success among students.

Also pertinent to the educational community is the fact that all participants were in favour of competitive and intense sport training as a means to build confidence, work ethic, executive functioning and self-expectation. Aligned with many researchers (Jacobson, 2014; Scanlon et al, 2006), the study found that teachers seem to recognize the overall benefits of involvement in sports training. One of the limitations of the study, however, is that all teachers interviewed had strong and memorable backgrounds in high-performance sports. Had a teacher with no experience, or negative experiences, in sports been interviewed, the results may have been different. Nonetheless, the findings of this study (as well as the research) urge the educational system to encourage the participation of all children in sports, preferably at competitive level.

Another group within the educational community that connects to the results of this study is the parent community. Parents and guardians, specifically of children in competitive and high-performance sport, need to be informed about the stress and pressure that children face. As Siegenther and Gonzalez (1997) explain, parental pressure to excel in sports can cause a high degree of stress among young athletes. It is worthwhile,
then, for parents of athletes to fully understand (and accept) the slim chances of their child reaching expert status in a sport. This is displayed twice in the study: first in the finding that high-performance athletes are uncommon among elementary classrooms, probably due to genetic advantage (Hyman, 2012; Lumpkin, 2013), and second in the unanimous notion that the chances of making professional leagues are very low (Holsendolph, 2006). If parents are educated on these concepts, and are able to accept them, then they can begin to encourage their children to focus on becoming well-rounded individuals instead of staying focused on one sole sport. A shift to this sort of parenting may help ease the pressures of young high-performance athletes. Additionally, learning that a seemingly deliberate play-based sport (Côté et al, 2009) such as hockey is the most common competitive and high-performance level sport in elementary classrooms may motivate parents to enroll their children in programs that focus on deliberate play, early sampling and intrinsic motivation (Farrey, 2008), rather than specialized programs that concentrate on deliberate practice. It is important to note that, in alignment with the American Academy of Pediatrics (2000), the enrolment of children in high levels of sport are increasing, and the study supports that parents have good reason to be registering their children. All participants agreed with the literature that broadcasts the positive effects of athletic involvement (Jacobson, 2014; Scanlon et al, 2006), going as far as to argue that it would be beneficial “if everybody did [high-performance sports]” (Howard). This praise for sport involvement assures parents that, although they should recognize the unlikelihood of their child reaching professional or expert status, the mere participation in high levels of athletics has a range of benefits that go far beyond the training grounds.
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Lastly, the final sector in the educational community that the study has implications for is the coaching community. Coaches, assistant coaches, directors, mentors, program facilitators, trainers, physiotherapists and other members of the organized youth sport community would greatly improve the well-being of their young athletes by familiarizing themselves with research in this area. Similar to the parent community, it is important for coaches and other athletic members to recognize the genetic advantages (and therefore unlikelihood) required for performance at a high-performance level. Instead of pushing child athletes beyond their physical abilities, coaches could be focusing their programs on deliberate play and early sampling in order to increase intrinsic motivation (Coté et al, 2007). This could help reduce stress among youth athletes by hopefully minimizing the most common consequences of sports training (outside of parental pressure) as explained by the American Academy of Pediatrics (2011), including overuse, body image/eating disorders, and inappropriate age instruction. Children that are able to reach high performance levels in sport, then, may be more intrinsically motivated to do so, rather than pressured by both parents and coaching staff. Coaches would also benefit from learning about the support for increased weight of academics in post-secondary institution athletics. Since the study found that teachers are in support of this weight increase, it is in the best interest of coaches (who aspire to have their athletes reach collegiate athletics) to ensure that their high-performance child athletes are developing successfully academically as well as athletically.

5.3.2 Implications for my Teaching Practice

When thinking about how the key findings in this study will effect my future teaching practices as a beginning teacher, it is important to explain that I play a role in
two out of the three sectors of the educational community that I have explained above (see 5.2.1). As a beginning teacher, I will be responsible for the accommodation of any high-performance and/or competitive athletes that are present in my future classes. On the other hand, my current career in coaching competitive dance gives me another area of teaching in which I can immediately implement the research findings.

My first research finding focused on the background of the classroom teacher and how it effects the level of accommodation that high-performance student athletes receive in their academics. My personal background, then, will likely play a part in my subconscious judgement of how I accommodate these students in my classroom. As mentioned in Chapter 1, my years in competitive dance were the highlights of my youth, leaving me such an advocate for the concept of team and individual sports that I chose to pursue a coaching career in order to provide the same experiences for other children. As a classroom teacher with a positive background in athletics, the findings from this study would suggest I will be easily able to relate to the needs of similar students in my classroom.

However, the results of the study remind me that there are many other extracurricular activities in which I have little to no experience, some which my future students will be involved in. My ignorance toward the activity, the time commitments, and the pressures of its training should not cause me to ignore the needs of the students. If the key findings have taught me anything, it is that whether we believe this should be the case or not, we are more likely to relate to students that we can find similarities with which is why it is important to stay reflexive of my biases in my instructional decision-making. It will be easy for me to understand the pressures of a gymnast, cheerleader or dancer in my classroom, while I will have little understanding of the stresses of violin training, for example.
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It will be my responsibility, then, to apply equitable accommodation to all students, regardless of their extracurricular activity of choice. Learning how to accommodate students effectively will require my constant communication with parents. As found in Theme 5, parental involvement may be heavier with high-performance student-athletes than non-athletes. As a classroom teacher, this understanding will be helpful, especially when trying to better understand what the student schedules are like after school hours. Lastly, Theme 4 followed the participants’ argument that the benefits of sports training outweighed the consequences. This will impact my teaching in two ways. Primarily, I will always encourage my students to seek out opportunities to join sports teams, since the study, along with the research literature, points out the academic benefits to training in athletics. Secondly, I will strive to be more responsive to each of my students and their individual needs. As a classroom teacher, it is my responsibility to see that students develop into well-rounded individuals. Students that are training at high-performance levels should be congratulated for their accomplishments whilst having equitable opportunities to succeed in academics.

My practice as a coach will also be greatly effected by the findings of this research study. During the emergence of Theme 2 it became clear that competitive-level athletes are more common that high-performance athletes in elementary school. This could be a result of Hyman (2012) and Lumpkin (2013)’s notion that most high-performance athletes are great because of an uncommon genetic advantage that they are born with. In my own practices as a dance coach, this may be seen as natural flexibility, a slender body frame or an above-average ear for rhythm and syncopation. Although there may be some dancers in my class that possess these traits, it is unrealistic for me to think
of these genetic advantages as average. Instead of pushing average students to stretch beyond their ability, I have to develop drills that enhance the abilities that they already have. The goal, then, becomes not to create “perfect” dancers, but to create dancers that are reaching the best of their individual potential.

The fact that hockey was mentioned as the most common competitive or high-performance sport in elementary classrooms speaks to the significance of deliberate play as a means of developing intrinsic motivation, therefore driving athletes to reach higher levels of success (Côté et al, 2009; Farrey, 2008). Since hockey is a sport that involves a lot of deliberate play (even during the practices), the intrinsic motivation grows quickly. As a dance coach, I want to try and incorporate aspects of deliberate play into my classes, including freeze dance, rhythm games and student choreography. Doing so may help students develop more of a passion for dance that is rooted in more than natural talent. Additionally, it is possible that early sampling played a part in hockey becoming the most dominant sport in the study, but there is no significant data supporting that. The concept of early sampling (Côté et al, 2007), although not present in the findings of the study, was a dominant concept woven throughout the literature. Early sampling refers to the idea that a child enrolled in a multitude of different sports at a young age (rather than specializing in one) has the opportunity to make choice and develop a passion for the sport that they identify the most with. The research argues that this method of introducing children to sports results in higher levels of athletic ability than early specialization. My acquired knowledge in this area has impacted my outlook on dance coaching as well. In the dance world, I often see young dancers (some as young as age 8) self-identifying as a specialist in a single discipline, such as tap dance or contemporary dance. Although Ericsson
(1993) would argue that this early specialization will help the dancer reach expert status, Coté et al (2007)’s study contradicted his argument. According to their study, a good dance coach would encourage a dancer to train equally in all dance styles until they develop a passion (or intrinsic motivation) for one, no earlier than age 12. This found motivation would propel them to succeed further that they would in specialization alone. Often I have met with parents that want their child to specialize in a specific dance style, however my learning through this study has informed me that focusing an eight year old on a single discipline will not have results as high as if they sampled various dance styles. As a researcher, I would like to further explore the concept of early specialization versus early sampling as a way of discovering the best way to help dancers reach their potential.

5.4 Recommendations

The results of this research study call to action a series of changes that can be implemented in order to better assure that high-performance student athletes in elementary school are developing into well-rounded and confident individuals. The following list of recommendations are based not only on the research findings but also the research literature.

1. The study found that the level of accommodation for high-performance athletes is somewhat dependent on the personal experiences in athletics of the classroom teacher, as well as the relationship between the classroom teacher and the students. This means that some teachers with little or no athletic background may not be aware of the needs of these student-athletes. To assure equity, it is recommended that schools create guidelines that outline the variety of accommodation techniques to be
used should a child miss school due to sports training. It is suggested that this be done at the school level and not the board level, as the administration and teacher body will have a better understanding of the specific student body (and needs) within the individual school. These guidelines can include information for non-athletic teachers on the pressures of high-performance athletics and balancing school with sports training. They can outline an appropriate range of accommodations for activities completed outside of school hours (homework, assignments) and include attention to the signs of overuse, body image/eating disorders, stress and other potential negative side effects of high-performance training which, if present, may indicate that the teacher should intervene (American Academy of Pediatrics, 2011).

2. It is important that teachers keep parents constantly informed of their child’s progress in their classroom. From the perspective of participating teachers, parents are usually more involved when their child is training at a high-performance level. However, it is not only up to the parent to ensure that the child is moving along well. If the teacher feels that the child is falling behind, it is important that this be immediately brought to the parent’s attention.

3. Based on the literature and the findings of hockey as the primary sport in elementary classrooms, it is suggested that parents seek out programs that encourage deliberate play (Coté et al, 2007) rather than deliberate practice (Ericsson, 1997), since it is evident that more children seem to excel in this sort of training environment. This shift in training style can help ensure that the child is training in a sport because they want to, not because they feel pressured to.
4. Due to the positive response to the increased weight of academics in post-secondary athletics, it is recommended that parents encourage the well-roundedness of their children by providing equal support of their academic and athletic abilities. Instead of placing all of the focus on sports, parents can thoughtfully educate their children on the reality of making it to the professional leagues and instil in their children a drive to succeed in education. Parents can continue to reinforce the importance of education and consider its significance, should their athletic careers not go as planned.

5. Based on the literature put forth by the American Academy of Pediatrics (2011), it is important that coaches incorporate age appropriate instruction and training in order to refrain from discouraging or frustrating children. Since the study found that high-performance athletes are uncommon, it is important for coaches to understand that the hope of making every child an expert is unrealistic. The goal, rather, should be to encourage enjoyment, improvement, and life skills like determination, team work and accountability through competitive level sports.

6. It is in the best interest of the coach to see their high-performance athlete excel in academics, since the weight of academics is beginning to play a larger role in admission to post-secondary athletics. It is suggested that coaches develop a similar system to that of collegiate teams; that athletes are held responsible for maintaining their academics in order to be eligible to participate. This will encourage the child to view schooling as an equally important aspect of their life as athletics. However, implementing such a system may lead student-athletes to only pursue academic success for the reward of attending sports. It is imperative, to avoid sole extrinsic motivation, that
coaches and parents educate the athlete on why it is important that they excel in academics as well as athletics.

7. Overall, communication is key. Communication between the teacher and the parent can enable children to receive appropriate accommodation at school while communication between the parent and the coach will ensure that the child is developing well in athletics. Additionally, it is important that student-athletes be encouraged to communicate with all three so that they feel comfortable and confident with their progression.

5.5 Areas for Further Research

There are various questions that have risen from the key findings of this study. As discussed, it was evident that teachers with a strong background in athletics seem to better relate to the needs of student-athletes in their class, while participants felt that teachers with little or no experience in athletics may not accommodate these students as frequently. A question, then, becomes: how do teachers with no background in athletics relate to the needs of high-performance student athletes in their classroom, and how do these teachers (if at all) accommodate their students? Research into this question could provide insight into creating effective guidelines to ensure equitable accommodation (see 5.3).

Another area requiring future research is the contrast between early sampling (Côté et al, 2007) and early specialization (Ericsson, 1997), and how these training styles effect academic achievement in children. Further research determining whether athletic sampling or specialization has more academic benefits would not only inform coaches
about how to strategically develop their programs, but it would also educate parents on what to look for when choosing a sports program for their child.

Additionally, more research into the academic and cognitive effects of team sports versus individualized sports is needed. Although the study found that team sports (i.e. hockey) are the most common in elementary classrooms, research literature notes the different cognitive skills developed in team environments compared to training alone (Jacobson, 2014). It would be interesting to look into the perspective of the classroom teacher on students involved in team versus individual sports, and how the training translates into their work in the classroom.

5.6 Concluding Comments

Much quantitative research has been conducted on the benefits that high-performance sports have on academics in high school and post-secondary education. The American Academy of Pediatrics (2011), however, states that parents are enrolling their children in high levels of sports younger now than ever before. As a dance coach, I have witnessed my own dancers train extensively each night, allowing little time for much else. As a beginning teacher and researcher, I began wondering how this commitment was effecting their academic achievement at school. With high-performance athletes becoming younger, this became a missing piece of the conversation that needed attention. The study focused on used a qualitative approach to investigate teacher perspectives on the relationship between high-performance sport participation and academic success. Semi-structured interviews allowed for feelings, beliefs and reflection to be present (Nassaji, 2015).
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The perspectives of elementary teachers on the academic achievement of high-performance athletes contributes to the gap in the conversation, but more research is needed. Nonetheless, the key findings of this study and their implications for the educational community further inform how teachers, parents and coaches (myself included) develop well-rounded student-athletes with enough support, motivation and confidence to reach their fullest potential.


Côté, J., Lidor, R., & Hackfort, D. (2009). Issp position stand: To sample or to specialize? Seven postulates about youth sport activities that lead to continued participa-


Lynn, R., Phelan, J., Kiker, V. (1969). Beliefs in internal-external control of reinforcement and participation in group and individual sports. Perceptual and Motor Skills (pp. 551-553)


Dear _______________________________,

My Name is Stephanie Photopoulos and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on the elementary teachers’ perspective on elite/high performance sports training in young students, and how involvement in such activities effects their performance within the classroom. I am interested in interviewing teachers who have (currently or past) had students in their classroom that engaged in high-performance athletic training outside of school. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 45-60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a research conference or publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. This data will be stored on my password-protected computer and the only people who will have access to the research data will be my course instructor Angela Macdonald. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks or benefits to participation, and I will share with you a copy of the transcript to ensure accuracy.
Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Stephanie Photopoulos

416 8050523

s.photopoulos@yahoo.ca

Course Instructor’s Name: Angela Macdonald

Contact Info: ____________________________________

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by _____________ and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: ______________________________________

Name: (printed) __________________________________________

Date: __________________________________________
Interview Questions

Thank you for agreeing to participate in this study. This research aims to gain the elementary teacher’s perspective on the academic performance of high performance athletes in the elementary classroom, as well as how teachers accommodate/modify their teaching for such students. The interview should take approximately 45 minutes. I want to remind you that you may choose to not answer any question...Do you have any questions before we begin?

Background Information
1. Can you please state your name for the recorder?
   • What grade and subject are you teaching this year?
   • What grades and subjects have you taught in the past?
   • How long have you been teaching?
   • Do you fulfill any other roles in the school besides classroom teacher (e.g. coach, councillor, support worker, leader etc.)
   • As you know, you are here today to talk about providing academic accommodations for high performance student athletes. Did you have any experience yourself with high performance athletics when you were in school? If yes, what was that experience? Were you involved in any organized sports programs as a child or teenager?

2. How common is it for you to have a student in your class who is a high performance athlete?

3. How, if at all, do you feel your own background experience (or absence of) with high performance athletics informs your attitude toward, and practices for, accommodating the academic needs of these students?

Beliefs/Values (Why)

4. What, if anything, do you believe is the value of children’s participation in athletics?
   • In competitive sport?

5. In your experience, have you observed any relationship between students’ participation in athletics and their academic performance? What have you observed?
   • What, if anything, have you noticed about athletic students’ work ethic, in comparison to non-athletic students?

6. Post-secondary athletics is a great road to professional athletics for many sports. With the weight of academics becoming equal/greater in comparison to athletic ability for admittance/scholarship/team acceptance, athletes seeking post-secondary athletics must have high enough grades to make the cut. What are your thoughts on this change?
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7. What challenges do you believe student athletes experience in terms of their relationship with schooling?

8. What do you believe is the role of classroom teachers in making accommodations for these students so that their academic performance is not compromised?

9. Many high schools and universities have accommodation programs for students involved in high-performance athletics. These programs offer tutoring, time management assistance, counselling and hold students accountable for their school work. Based on the athletic children that you have taught, do you believe that elementary student-athletes would benefit from such programs? Why?

Teacher Practices (What/How)

10. Generally speaking, can you describe your experience with teaching students involved in high performance athletics?
   • What athletics were these students involved in?
   • How did these students perform academically?
   • What accommodations, if any, did these students require?
   • What accommodations, if any, did you provide and why?

11. Elite athletes may miss school often for training and competitions. Have you found this to be the case? How do you accommodate their absences? What do you to help ensure that these students do not fall behind their peers?

12. What practices, if any, do you enact to reduce the potential stress and pressure these young student athletes face?

13. What resources do you draw on in order to provide support and accommodation for high performance athletes? (e.g. probe re: communication with parents; colleagues, class website that provides updates, expectations, homework assignments, class materials)

Challenges/Next Steps (What’s Next)

14. What challenges do you encounter when you have students in your class who are high performance athletes? How do you respond to these challenges?

15. In your view, how might the elementary school system further support young student athletes and their teachers so that these students’ academic performance is not compromised as a result of their athletic performance requirements and schedule?

Thank you for your time and considered responses.