UNIVERSITY OF EDUCATION, WINNEBA

AN ANALYSIS OF TALENT IDENTIFICATION AND MAINTENANCE OF SPORTS PROGRAMMES IN WA POLYTECHNIC OF THE UPPER WEST REGION, GHANA

BAWA ALHAJI ABASS

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INDEX NUMBER:

7100090010

A Dissertation in the Department of Health, Physical Education, Recreation and Sports (HPERS), Faculty of Science Education submitted to the School of Graduate Studies, University of Education, Winneba in partial fulfillment of the requirements for the award of Master of Education Degree.

JULY, 2012

DECLARATION

STUDENT'S DECLARATION

I, Bawa Alhaji Abass declare that this Dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole for another degree elsewhere.

SIGNATURE: ……..

DATE: ……...

SUPERVISOR'S DECLARATION

I, hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: Dr. Patrick B. Akuffo

SIGNATURE: ……

DATE: ……..

ACKNOWLEDGEMENTS

The writer owes an immense debt of gratitude to many individuals without whose assistance and support writing of this thesis would not have come to fruition.

My greatest debt of gratitude goes to my supervisor, Dr. P. B. Akuffo who took pains and time to read through the whole script, made the necessary corrections and furnished me with useful suggestions. I also acknowledge my wife who supported me financially and kept me company throughout the research period.

I wish to express my felicitations and appreciation to my Lecturer Guardian, Dr. H. A. Pufaa for consistently calling me on phone and urging me on; and also suggesting useful materials that are of relevance to my topic.

I also wish to express any appreciation and indebtedness to all the help-coaches and students of Wa Polytechnic who participated in the study, through whose co-operation data for this research work were gathered.

Finally, I acknowledge and accept responsibility for any criticisms and errors in this report which are strictly mine.

DEDICATION

I dedicate this piece of work to my parents, children and my wife.

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ABSTRACT

The purpose of this research was to analyze talent identification and management programmes in Wa Polytechnic. The descriptive survey research method was used. Thirty (30) athletes and three (3) help-coaches in Wa Polytechnic were randomly selected as the sample for the study. A structured questionnaire, which was face validated by my supervisor was used to gather the data. The data was analyzed using frequency tables and percentages. Based on the data analysis it was realized that there were other ways that might help Wa Polytechnic in contributing to the development of student potential athletes, so that they can effectively feed into the mainstream sport system. It was recommended among others that, the management body of Wa Polytechnic should increase admission quota for sportsmen and women with the required qualification and institute scholarship, discount, and citations for distinguished sportsmen and women. This research presents the need for focusing around growing and sustaining larger numbers of student athletes and improving talent identification and development programmes to help more athletes excel at various levels of competitions.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

A lot of inconsistency has been observed in the way sports talents are being identified and developed in Wa Polytechnic for competitive sports to win laurels and trophies. This inconsistency is evident in the selection and formation of teams for competitions vis-à-vis winning of laurels in individual as well as team sports. It is characteristic that even though Wa Polytechnic athletes excel in certain sports, they always place around the bottom when performance is considered in general. This potential poses a big challenge in bridging the gap between Wa Polytechnic and its sister counterparts through careful selection and presentation of formidable school teams for competitions such as the Ghana Polytechnic Sports Association (GHAPSA) Games, the West African Polytechnic Games Association (WAPOGA), and even beyond.

Ghana Polytechnic Sports Association (GHAPSA), even though with autonomy falls under the umbrella of Ministry of Education, Science and Sports (MOESS). The Polytechnic sports system is an affiliate body of the National Sports Council; this means that the Polytechnic sport system is part of all the programmes and activities designed by the National Sports Council (NSC). The Polytechnic Sports Management body, both at Ghana Polytechnic Sports Association (GHAPSA) and West African Polytechnic Games Association (WAPOGA) levels has demonstrated its concern for sport for all people of

all ages within the Polytechnic community, by developing a national sport and recreation policy.

The Polytechnic National Draft Sports Policy (2008) seeks to among other things; outline the need for changes and developments in the provision and promotion of Sport and Recreation as tools for national transformation and human development, identify sport as human right and further expand on the Polytechnic mission and intention to provide sport and recreation to all people of the Polytechnic community, irrespective of their ability, age, gender, race, geographical location or socio-economic status.

Enrollments of Wa Polytechnic as an example, in 2006/2007 academic year stood at 837 women and 665 men who were admitted for various programmes of studies. In 2007/2008 academic year, 846 women and 774 men gained admission while in 2008/2009 academic year, 862 women and 796 men gained admission. These figures continued to rise in both male and female admissions as depicted in the table on page 43.

Despite evidence of increased enrollment and human capital practices that would sustain talented sportsmen and women in Wa Polytechnic, some coaches in Wa Polytechnic do not include a comprehensive talent management models as a strategic objective.

It was observed that athletes in Wa Polytechnic do not seem to be matching their sister polytechnic counterparts in the performance of sports, and their performance at all stages of competitive sport, that is, GHAPSA and WAPOGA do not yield the desired results. This reflected on the quest of Management of Wa Polytechnic to review the way sport is being conducted and provide a set criteria for identifying, selecting and developing

athletes, for effective practice and formidable team formation. At present there appears to be no particular selection method that would allow instant and precise identification of talents for a particular sporting event. Every now and then, the complaints have been inappropriate selection and preparation procedures used which result in abysmal performances, therefore, results at competitions are not encouraging.

The Sport Department in Wa Polytechnic can truly benefit from achievements that talent management has had on the organizations of sport at Inter-hall sport, Ghana Polytechnic Sports Association (GHAPSA) and West Africa Polytechnic Games Association (WAPOGA). Despite the notion of wanting to be different from the business world, Wa Polytechnic must realize that growing talent from within can be of considerable benefit, especially given the current economic climate, increasingly competitive environment for human capital, and the ongoing scouting for talented athletes. Clunies (2007) acknowledged that innovative colleges and universities are examining the value of talent development as a cost effective process to the transitioning of young sportsmen and women from Senior High Schools (SHS) as they pursue higher education.

The Wa Polytechnic strategic plan or the mission statement of any sport department in higher education, most likely, talented athletes will be viewed as important assets in order for the institution or country to achieve lasting success. Despite this, why is the practice of talent management implemented so infrequently on the administrative side of the higher education environment? Clearly it is not due to a lack of planning skills. Every institution operates based on a strategic plan, its financial future is based on a comprehensive fundraising plan, and facilities are not created or renovated without the

presence of a campus master plan (Christie, 2005). Therefore, might there be value to having a plan for selecting and preparing high potential talent? Most institutions in the current economy can ill-afford to lose a senior player or a high potential athlete without a suitable replacement given the tremendous costs related to talent identification and development; especially athletes staying outside the institution (Clunies, 2007). Colleges and universities, now more than ever, need to ensure the right person is serving in the appropriate position (Heuer, 2003). Collins (2001) stated that, first get the right people on the bus, the wrong people off the bus, and the right people in the right seats, and then figure out where to drive it (p. 41). Demonstrating this type of stability in talent provides confidence to both internal and external stakeholders (Marsh, 2008). In effect, Polytechnics that accept the challenge to build talent from within to meet impending competition requirements will certainly gain an advantage on peer institutions in this competitive climate.

1.1 Statement of the Problem

While athletes at the Ghana Polytechnic Sports Association (GHAPSA) and the West Africa Polytechnic Games Association (WAPOGA) levels are performers in various kinds of sports, winning laurels and making significant successes at national and international front, athletes in Wa Polytechnic are seen to be participants. Even though an attempt had been made to bring students of all ages at the Polytechnic on board to take part in sports as a right and for promoting healthy lifestyle, the few students who consider sports as a viable venture, and practice, get the opportunity to represent their institution, Wa Polytechnic at competitive sports. The larger part of the student population does not

see sport as such; and do not practice in this line. This unfortunately continues to play down on the essentials of talent identification and development for effective performance as well as winning of laurels at sport competitions, national and international.

1.2 Purpose of the Study

The purpose of this study was to analyze talent identification and management programmes in Wa Polytechnic. The perspectives from this institution were gathered in order to compare and contrast important programme characteristics while determining, to what degree talent management helps to support institutional sport achievement priorities.

The study sought to identify ways that Wa Polytechnic might help in contributing to the development of student potential athletes in Wa Polytechnic so that they effectively feed into the mainstream sport system.

1. The study also aimed to establish factors which contribute to non participation and non performance by student potential athletes in competitive sports.

2. In order to achieve the above, the study examined and critically evaluated the views of sport coaches and athletes involved in Polytechnic sport on how athletes sporting performances could be stepped up at all levels of competition.

3. The study also focused around growing and sustaining larger numbers of student athletes and improving talent identification and development programmes to help more athletes excel at local, national and international levels.

1.3 Research Questions

1. How are talents identified in Wa Polytechnic?

2. How are identified talents managed?

3. What problems are associated with the identification of talents in Wa Polytechnic?

4. What are the problems associated with the management of talents in Wa Polytechnic?

1.4 Significance of the Study

The importance of this research is to help managers and organizers of sports n the identification and development of talented athletes, and further boost the performance of Wa Polytechnic in national as well as international games. The results unearthed the nature of problems and peculiarities associated with individual athlete's development as far as recruitment, academic development and management body support is concerned. The study is hoped to improve identification and development of talented athletes in Wa Polytechnic, thereby, registering Wa Polytechnic a better position at National Polytechnic Competitions. It will encourage Sport Coaches and Management body to embrace the concept of talent identification and development programmes for optimal performance. The research will also help solve non performance problems associated with inappropriate selection methods. It will again assist Sports Coaches to explore and scout for talented athletes for improved performance. Finally, it will help fulfill the National Policy of Polytechnic Sports.

1.5 Delimitation

This research work was delimited to Wa Polytechnic, due to distance and financial constraints, and fact that the problem is observed in Wa Polytechnic.

1.6 Limitations of the Study

1. The problem, even though could apply to other Polytechnics because of unique qualities among the ten (10) Polytechnics nationwide, Wa Polytechnic was used in the study.

2. Generalizations cannot be made about all ten (10) Polytechnics, despite the similarity of performance, no evidence can be presented that the practices that are successful in one Polytechnic are transferable to another Polytechnic elsewhere.

3. Constraints of finance and limited time at hand for this work, the researcher was forced to limit the study to only Wa Polytechnic.

1.7 Definition of Terms

GHAPSA – Ghana Polytechnic Sports Association

WAPOGA – West African Polytechnic Games Association

Sports Manager – The overall person in charge of the organization of sporting programmes in the a Polytechnic. He recommends for appointment of personnel, who he is sure are well versed to help take care of various teams, and is responsible for Staff as well as Athletes' training and wellbeing.

Help-Coaches – People appointed by or through the Sports Manager to help take care of the various teams that a Polytechnic prepares and presents for competitions. They may be professional or not professional. The baseline is that, they might have done some sort of sport to a certain level, and have the interest in sports. These help-coaches are responsible to the Sports Manager who solely manages sports in the institution.

CHAPTER TWO

RELATED LITERATURE REVIEW

2.0 Introduction

Review of related literature was based on the following sub-headings:

Athletic Talent Defined

Identifying Athletic Talent

Identifying and Developing Athletic Talent

Issues in the Identification of Athletic Talent Predictability

Talent versus Practice

Movement is the means by which infants explore their environment, develop their senses, and lay the foundation for future learning in all domains of learning. Movement experiences are critical to learning readiness. As infants move from crawling to walking, they enlarge their world and become engaged in skills as they learn to describe what they encounter in their environment, and their cognitive skills grow as they investigate their world. Through movement and play, young children become independent through exploration, gain confidence as they accomplish new feats, and acquire social skills as they interact with others.

Additionally, movement stimulates growth and development as well as enhances the child's health. The acquisition and refinement of motor skills essential for lifting, posture,

movement in a variety of physical activities, such as sport, aquatics, dance, or outdoor pursuits are important outcomes of motor skill development. The development of motor skills focuses on helping individuals learn how to move effectively to accomplish specific tasks efficiently, that is, with as little expenditure of energy as possible. The fundamental motor skills progress through various stages, leading to the mature form of the skill. As children progress through these stages, they exhibit a greater degree of proficiency in their movements, enhanced control and precision of response, and improved coordination. Fundamental movements such as running, kicking, trapping, and dodging can now be applied to a sport such as soccer.

The development of individual's motor skills to their fullest potential requires that individuals have opportunity to be involved in structured movement experiences that are appropriate to their development level. These experiences should provide meaningful instruction, offer sufficient opportunity for skill practice, and encourage effort and continued practice outside the structured setting. Physical educators or coaches who work with young people play a critical role in achieving the goal of promoting lifelong participation. It is important that participants acquire competency in the basic, fundamental motor skills so that they can adapt these skills to the more stringent demands of sports. Individuals who lack the prerequisite skills will have trouble meeting these essential experiences that provide for success (Pufaa et al., 2009).

The above observation is central to any discussion regarding the nature of talent in sport. In an overview of this topic, (Regnier, Salmela, & Russell 1993), indicated that the predominant thinking of the era in psychology was not as sensitive to the developmental

issues and the nature-nurture debate regarding talent in sport. Quite simply, the individual's contribution and relationship between environment and generic factors was developed to be of unknown magnitude. More important, the precise definition of talent concept was not addressed at the time, but highly skilled athlete was believed to be 'talented' and had to call on some inherited 'gift' or innate ability to excel. In this way, the state of affairs in the study of talent in sports was analogous to seeing only rapid growth of the athlete without considering the developmental ability within transitional periods.

The belief that innate talent is, in fact, a primary construct for exceptional athletic performance is reinforced daily in almost every sport telecast, where the word "talented" is used as a synonym for "highly skilled" athlete. However, some researchers now argue that contrary to this belief, exceptional performance is more the result of extended amounts of high-quality practice and that innate abilities play a minimal role (Ericsson, Krampe & Tesch-Romer, 1993; Howe, Davidson, & Sloboda, 1998). This view has definitely revived the nature-nurture debate.

2.1 Athletic Talent Defined

Talent generally is considered an exceptional natural ability to attain goals (Moon, 2003), therefore, logically, athletic talent ought to be exceptional natural ability of an individual to perform a sports-related task or activity. Yet, how does one determine athletic ability and how should this concept be measured? We have yet to determine an exact science in discovering or developing athletic talent. This may be caused partly by disagreements about the definition of athletic talent, which continues to be a point of discussion among

scholars (Abbott & Collins, 2004; Howe, Davidson, & Sloboda, 1998). One way to begin to define talent is to seek evidence of its existence. In their attempt to verify the reality of talent, Howe et al. (1998) referred to the existence of autistic savants and child prodigies as unique examples that singularly prove the veracity of innate talent. The authors do argue that even these persons practice a great deal. However, research indicates that autistic savants indeed exist and could play music or art with no instruction (Miller, 1989; Snyder et al., 2003).

Through the use of brain technology, Snyder et al. (2003) produced evidence that innate Journal for the Education of the Gifted or natural talent may exist within autistic savants. Savant-like drawing and proofreading abilities were created by "normal" subjects when function was temporarily suppressed in part of the brain. The work of Snyder et al. provides solid evidence of talent. More interestingly, the researchers demonstrated that talent could be created.

Many readers of this article will agree that they personally know someone who they suspect is "athletically talented." But how do we know what athletic talent is and when it exists in a particular person or group of people? Studying the phenomenon is a complex and often difficult challenge.

Researchers argue that athletic talent identification and development must recognize the multidimensional and dynamic nature of sport talent (Bailey & Morley, 2006, Baxter-Jones, Helms, Baines- Preece, & Preece, 1994; Edwards, 1994; Helsen, Hodges, & Starkes, 2000; Nieuwenhuis, Spamer, & Van Rossum, 2002). Abbott and Collins (2004) maintained we should be examining physical (biometric), performance (motor), and

psychological factors depending on whether we are trying to identify current performance ability or future performance. Howe et al. (1998) noted people are often vague when referring to talent and maintained that we should be more specific regarding what form talent takes and how it might affect athletes.

In an effort to begin defining talent, Howe et al. provided five properties of talent:

(a) genetic or innate factors exist,

(b) advance indicators of talent can exist at an early stage,

(c) evidence of talent potential can be used as a predictor of achievement,

(d) talent is limited to a small part of the population, and

(e) talents are reasonably domain-specific. These properties are helpful, but are not all inclusive of this complex concept.

Helsen et al. (2000) applauded Howe et al.'s attempt to define talent, noting that the definition may assist researchers; however, these authors could only support three out of the five properties. Howe and his colleagues could not find evidence that talent could predict excellence nor that talent was domain-specific.

Additionally, Helsen et al. noted the lack of evidence to support excellence predictability and domain specificity is particularly problematic because these factors are the main tools used to identify and select talented youth. Despite the laws revealed by both Howe's and Helsen's research teams, their work examining the elements of athletic talent is crucial to moving toward a more fitting and universal definition.

2.2 Identifying Athletic Talent

It is recognized that people have different needs at different stages in their development, and as such, they often require different coaching environments as they progress (Van Rossum, 2001). Unfortunately, while elite level coaching is often assumed to be already effective (Lyle, 2000), most coaching research has focused on participation promotion (Abraham and Collins, 1998) and therefore there is little guidance for coaches who are responsible for developing talented pre-elites through key transitions towards elite status (Van Rossum, 2001; Falk et al., 2004). Based on this lack of pertinent research, the need for consideration and then optimization of the process of developing youngsters into elite senior athletes seems clear.

Indeed, with such an all-encompassing research aim, it is clear that the process is likely to require more than just a uni-dimensional evaluation of coach behaviours, as has happened in past research (Douge and Hastie, 1993). Thus, it seems appropriate to consider all aspects of the coaching situation, which for the purposes of this paper we have termed as definition of terms.

In addition to this clear research gap, it has long been stated that there is a need for context specific work (Douge and Hastie, 1993), and with recent shifts in coaching research methodology to examining and understanding the declarative knowledge of experts (Abraham and Collins, 1998), we believe that an understanding and synthesis of related research would provide a valuable base on which Talent Development Environment could be examined and future work be based. Finally, from a practical viewpoint, it has been highlighted that role guidance for many youth sport coaches is

often implicit and therefore a theoretically driven model of effective practice on which critical reflection can take place would be highly beneficial (Gilbert & Trudel, 2004).

Based on these considerations, Gilbert and Trudel said "we have attempted to gain insight into a more holistic view of what an effective Talent Development Environment is by drawing on a range of relevant work. It is felt that the key themes presented represent a balance and support view of a broad and integrated picture of what we know to date, which can be used in order to critically reflect on what we do. In the final section we consider these guidelines against brief exemplars of systems and methods in current use in order to emphasize the importance of such a model to aid the enhancement of practice that unfortunately, often runs contradictory to this information."

Similarities between the identification and development of athletic talent and that of gifted children are rarely compared. Interestingly, however, they share analogous processes. The purpose of this review is to investigate the progress of research regarding athletic talent identification and development, including current issues, and provide suggestions for future research. Key roadblocks to the identification of athletic talent include attempting to identify talent at an early age, use of flawed athletic talent identification models, and lack of education of coaches, parents, and teachers regarding how to properly identify athletic talent.

Proper identification of athletic talent has many benefits. From an economic standpoint, the success of the multi-billion-dollar professional sport industry relies heavily on successful identification and development of athletic talent. For the year of 2008–2009,

the National Federation of State High School Associations (NFHS, 2009) reports that 7,536,753 high school students participated in high school sports.

However, according to the National Collegiate Athletic Association (NCAA, 2009b), just more than 40,600 student-athletes participate in their competitions each year. These numbers suggest that less than 1% of all athletes participating in high school sports will continue their participation into collegiate sports. Even fewer student athletes will possess the ability to become professional athletes. Yet, millions of athletes experience a host of benefits in youth sports. For example, Journal for the Education of the gifted research provides evidence of the positive impact of athletic participation on development of kinesthetic skills, social development, and academic outcomes (Abbott & Collins, 2004; Green, 2005).

Additionally, youth sport is one way to combat the sharp increase in student obesity. These benefits point to the importance of encouraging and maintaining youth and young adult involvement in sports. Athletic talent identification is of particular interest to coaches, researchers, parents, and educators alike. Coaches seek out athletic talent identification as an obvious means to succeed. As a result, coaches nurture and encourage talented athletes to continue sports participation.

Research findings suggest that student athletes who perceive they have high ability levels are more likely to maintain participation in sports activities (Martin, 1997). The literature on identification and development of athletic talent has been limited in the past decade. Persson (2002) particularly noted the absence of research on athletic talent identification in journals that focus on high ability and education. He further maintained that this lack

of research is an essential component lacking in gifted education. High ability primarily focuses on the intellectual realm where ability level may be easily measured through standardized testing.

However, talent research is beginning to take shape since Persson's 2002 call. Talent and talent development have been given attention in the 2007 editions of two journals (International Journal of Sports Psychology and High Ability Studies). Elite sports of these two journals are a much-needed beginning for a thorough exploration of talent. Identifying athletic talent is an added challenge that is difficult at any age and at various levels of play. Although we typically target talent identification efforts in youth and adolescence, athletic talent identification occurs at all ages and levels of athletic play. So, why are those involved in youth sport often obsessed with athletic talent and why do some people spend countless hours, dollars, and resources planning to identify athletic talent? The success of professional sport hinges upon proper identification of athletic talent. Given that billions of dollars are at stake, talent identification and development (TID) are major concerns for professional sports as well as for those who aspire to become a part of the professional ranks. Achieving notoriety also plays a role in talent identification and development. Many coaches, parents, schools, friends, and family members dream of the prestige

Systematic consideration of long term requirements is crucial. For example, Cote and Hay (2002) have suggested that engagement in playful and varied non-domain specific activities are valuable at early stages of development; and late specialization (13-17years) appears to be an important predictor of the quality of later skill development. Further

more, we must recognize that long term development of expertise incorporates many more issues than just the ability to learn to perform successfully. For example, issues of motivation and long term adherence (Deci & Ryan, 1985), perceive competence (Sternberg, 2000), the importance of fundamental cognitive and motor skills (Ericsson, 1998; Beamer et al., 1999) and access to the necessary opportunities (Bloom 1985) are all crucial.

In conclusion, it is clear that long term visions must systematically and explicitly drive the systems that drive athletes, coaches, parents and society. For a variety of reasons, it appears easy to ignore evidence from the research at both an individual and system level. For example, while early specialization is common practice, and may develop youngsters quickly into successful age group performers, it is far less effective for long term development. It would appear from literature that such a systematically implemented long-term vision needs to be reinforced at a number of levels; indeed this may be a major problem in delivering wide spread coherent practice.

Identifying Athletic Talent is associated with becoming a renowned athlete or being associated with a "talented" athlete. Motivations for fostering and identifying athletic talent may be ego driven by the desire to be associated with an athlete who achieves widespread athletic notoriety. Less extrinsically motivated reasons for talent identification and development also exist, such as the opportunity to develop self-esteem, social skills, and physical and mental abilities. Researchers recognize the importance of effective talent identification and development due to the psychological ramifications of dropout or failure to achieve among youth (Wall & Cote, 2007).

Additionally, research highlights the importance of a child's potential to learn and develop as a part of recognizing potential for sporting performance. According to Green (2005), athletic development can play an important role in social environment and skill development. The purpose of the current review is to investigate what it means to be "talented," to explore the current issues surrounding identifying and developing athletic talent, and to provide suggestions for youth workers and researchers.

2.3 Identifying and Developing Athletic Talent

Elements in Talent Identification and Development is the most common and obvious way to identify athletic talent is to examine physical ability, but current research cautions against a unidimensional approach. Simonton (2001) supported the idea that talent is a complex topic, stating that multiple components contribute to the development of talent in any domain.

Abbott and Collins' (2004) study denoted the importance of psychological skills in talent identification and development. They stated that athletes should not be excluded or identified based solely upon one attribute, such as height. Abbott and Collins maintained that other factors like speed and agility may compensate for a weakness.

Further, these researchers found that key psychological behaviors such as motivation and learning strategies are essential to the talent development process both in sport and other performance areas. Meta-cognitive strategies have been shown to enhance achievement among numerous disciplines including education and sport (Kreiner-Phillips & Orlick, 1992; Zha, 1993). Cognitive ability plays a significant role in athletic success. An

essential key in identifying the talented athlete is recognizing athletes who can actively think and modify their actions while participating, utilizing strategy and cognitive abilities during play. Physical skill alone does not signify athletic talent.

Nieuwenhuis et al. (2002) sought to identify the specific kinanthropometric, physical-motor, and psychological variables as well as specific skills that influence field hockey performance. The study examines two top and two bottom field hockey teams in a 14–15-yearold league to determine any differences. The only meaningful difference they found in kinanthropometric characteristics was frontal thigh skinfold. However, the top group had significantly better endurance and demonstrated more advanced ball-handling skills.

Nieuwenhuis et al. created a prediction function using discriminant analysis that successfully distinguished between successful and less successful hockey players 90% of the time. The specific variables distinguishing players include agility, speed, approach success in competition, ability to hit, humerus measurement, general approach success, flexibility, and femur measurement. This complex predictive function falls short of the linear relationship most coaches would like to image Journal for the Education of the Gifted line. Nevertheless, Nieuwenhuis et al.'s 90% success rate indicates that talent may be distinguishable in the teen years.

An area that has received limited research is the role of adults during the development of athletic talent. Wolfenden and Holt (2005) examined the perceptions of elite junior tennis players, their coaches, and their parents regarding talent development. The authors found that intense commitment to tennis occurred earlier for participants than the time frame suggested by previous research. Wolfenden and Holt's findings support the concern of

defining “stages” of athletic talent development given that maturity occurs at different times and cannot necessarily be predicted by chronological age.

Additionally, this research illustrates the difficulty in identifying elite youth, because there are no guarantees these youth will become elite adult athletes. As a case in point, Venus and Serena Williams are often mentioned as examples of successful adult athletes whose talents were identified and developed beginning at an early age, but for every shining example probably dozens, if not hundreds, of children are identified as talented and achieve little, if any, success. For example, the NCAA (2009a) estimates that only 1% of women make it from collegiate to professional basketball and less than .003% make it from high school to professional basketball. The NCAA-projected similar estimated results were found for most major sports.

Wolfenden and Holt also suggested six categories of factors that may influence the development of athletic talent. The categories included emotional support, tangible support, informational support, sacrifices, pressure, and relationship with coaches. A closer examination of these categories is needed to ascertain the impact on the development of athletic talent.

Concomitantly, purely cognitive assessments also fail to differentiate levels of athletic talent. Chess is considered a sport consisting solely of intellectual challenge. Doll and Mayr (1987) found that a measure of intelligence could not distinguish the best among chess players and asserted that additional factors are important in determining who will be the best chess players. Similarly, research demonstrates that athletic talent is a

culmination of psychological, physiological, and support factors, and these elements should be examined to truly grasp the complexity of identifying athletic talent.

Conceptualizing athletic talent development becomes increasingly challenging when researchers make a distinction between talent identification and development. Some research seeks to examine immediate identification of athletic talent, while other research explores development of talent over a period of time. Abbott and Collins (2002) claimed their approach to athletic talent identification and development acknowledges the difference between performance and potential:

(a) Main emphasis should be placed on potential to develop rather than immediate performance;

(b) One's potential to develop rests on psycho-behavioral components;

(c) In order to develop in a sport, essential fundamental movement skills must be present in their vocabulary (psychomotor); and

(d) Talent identification and talent development processes should be combined. Seemingly, it is difficult to include one aspect of the approach without addressing the others. This new approach may prove to be useful to those who are interested in talent identification and development.

2.4 Issues in the Identification of Athletic Talent Predictability

One problem with talent identification and development is the predictive validity of talent identification strategies. Although a few coaches and parents believe they possess the ability to predict talent, some researchers disagree (Abbott & Collins, 2002; Helsen et al., 2000). For example, Abbott and Collins (2002) discussed the lack of predictive ability of a traditional talent identification model, the Sport Interactive Model. The model utilizes a computer program that matches children to sports based on desirable sport-related characteristics. Abbott and Collins' study revealed that the model had poor test and retest correlation scores. As such, the model is unlikely to accurately identify potential athletic physical composition and performance ability in young children. The professional sports arena also has difficulty predicting talent. Professional football, as well as other sports, utilizes several skills tests to "predict" future football stars, with millions of dollars at stake Journal for the Education of the Gifted in each draft day decision, yet many of the identification strategies have questionable validity. For example, the 40-yard dash is a ubiquitous assessment used to predict success at the professional level, yet it does not predict athletic success reliably due to the arbitrary distance.

Moreover, a combination of physical and cognitive abilities is needed to be successful in professional athletics. Stories abound about successful professional athletes who were predicted to be mediocre due to specific physical measurements (e.g., height, weight). These athletes achieve success despite expected predictors of talent. For instance, Muggsy Bogues is 5 feet, 3 inches tall, the smallest National Basketball Association

(NBA) player in history. His height is considered overwhelmingly small for even a high school team. Despite his height challenge, Muggsy is an elite athlete.

Conversely, the annals of professional sport overthrow with stories of highly touted prospects who achieved little success during their careers. Tim Couch, an All- American and the number one National Football League (NFL) draft pick in 1999, soured quickly as his professional play fell short of his previous talent predictions. Couch, a quarterback for the Cleveland Browns, received $48 million as the first round draft pick.

Despite several attempts to be successful, his short 9-year football career is less than impressive for a highly touted NFL draft pick. Those who study intelligence are also enthralled with their own form of talent identification. Intellectual aptitude tests are certainly not excluded from their share of poor instrumentation with little merit. An example of accepted but poorly representative testing is the Wonderlic Intelligence Quotient test created in 1937 (Wonderlic, 2008). The Wonderlic IQ test is used to assess learning and problem and is normed so that a score of 21 represents average performance. This exam is widely used in personnel screenings and by the NFL, yet this assessment may miss a wide variety of important intellectual abilities. Those interested in sport talent identification should be concerned about similar shortcomings regarding the methods used to scout athletic talent of youth.

Although many coaches perceive that they are identifying children who will demonstrate athletic talent in the future, in reality they may be limiting their judgment to children who demonstrate current indications of talent, such as physical precocity. If gatekeepers to athletic development programs identify children at an early age based primarily on

physical maturity, “late bloomers” or even children of average maturity may be excluded permanently from these programs. The ability to predict talent is moot if we lack adequate knowledge of how to identify and, more importantly, how to nurture athletic potential. Age Strong evidence suggests that athletes whose birth dates fall early in the year are more likely to be identified as “talented” (Baxter-Jones et al., 1994; Dudink, 1994; Edwards, 1994; Helsen et al., 2000).

Helsen et al. (2000) tested the idea that physical development and an age advantage may be equated by some coaches as talent. The researchers examined studies of international, national, and provincial soccer players. The findings revealed that players born in the first quarter of the selection year were considered “more talented” by their coaches than those born later in the selection year. These effects were maintained over time, as professional players were more likely to have been identified as talented as youngsters and provided with additional coaching.

Interestingly, during the study period, Federation of International Football Association (FIFA) changed the selection year guidelines from August through July to January through December. After the guidelines changed, different youngsters were considered talented by their coaches and the changes directly correlated with the date of birth. Children born in the months of January to March were most likely to be considered talented after the FIFA change, whereas the desirable months before the FIFA guideline changes had been August to October. Similar results were not noted in the 16 and older age group, presumably because players born in less desirable times of the year were likely to have dropped out prior to that age. Helsen et al. concluded their findings by

suggesting that coaches' talent identification is explained by physical ability relative to an advantage in age.

Other researchers argue that one of the reasons talent goes unidentified is because talent does not emerge until later ages (Green, 2005; Helsen et al., 2000). When compounded with the earlier observation that physical maturity alone does not predict future talent, the tendency to mistake early physical maturation for physical talent is even more troublesome. While important attributes regarding athletic Journal for the Education of the gifted talent are being overlooked by coaches and researchers, the narrow range of abilities that are the focus of identification efforts may be contaminated by irrelevant factors. We can conclude that numerous children will be missed or inaccurately ruled out as talented.

Helsen et al. affirmed an additional psychological component may affect the performance of younger children when competing against more mature children within the same age group. Date of birth may play a significant role in both identifying and developing athletic talent. Research supports the well-known relationship regarding achievement in education and date of birth (Dudink, 1990, 1994). Dudink (1990) found that children in the younger group, regardless of school year, are at a disadvantage compared to older children. However, this study is not the first harbinger of the existence of a problem.

Dudink (1994) pointed out that Nature published an article more than 20 years ago that indicated a concern regarding the relationship between season of birth and cognitive development. Nonetheless, researchers continue to note the problem and unfortunately

our &awed systems have yet to change. Edwards (1994) criticized Dudink's findings because Dudink does not identify whether the disadvantages of birth date are physiological or psychological in nature. Edwards investigated this notion by collecting the birth dates and heights from cricket players in the United Kingdom during the 1991 season. The researcher found the birth-date effect is true for goalkeepers, defenders, midfielders, and forwards but height was significant for goalkeepers and defenders (Edwards, 1994). Those familiar with soccer are aware that, unlike in other sports such as basketball, height has little impact on ability in soccer, with the exception of the goalkeeper position. The findings indicate that the birth-date effect may cause a psychological disadvantage.

Edwards further maintained birth-date effect is not based solely on physiological or psychological advantages or disadvantages; rather, he noted the combination may vary among sports. However, the author's suggestion to simply guide youth into appropriate sports is somewhat archaic. The author does not provide data nor the method, regarding how to discover one's appropriate sport, which is almost certainly easier said than done. Moreover, discovering one's appropriate sport is the major goal of identifying athletic talent. The birth-date effect does reveal a genuine concern for those who are responsible for identifying athletic talent and should be investigated further.

2.5 Talent versus Practice

Some researchers have attempted to justify or refute the very existence of athletic talent, arguing that practice is the key element that fosters excellence in sport. Studying the "talented non-practices" is a difficult task as we currently have few examples of those

who are talented and do not practice, yet continue to excel. Although experts in a given field such as sport, music, and math appear to be doing their skill or performance effortlessly, research evidence reveals these persons intentionally practice for many hours to attain advanced levels of ability. For example, Ericsson, Krampe, and Tesch-Römer (1993) noted that within the realm of accomplished musicians, the best experts log about 10,000 hours of solitary practice during their music development, whereas less accomplished and serious amateur pianists log only 5,000 and 2,000 hours respectively.

The authors refer to the phenomenon of excellent performance only after intense and intentional practice as the theory of deliberate practice. Devotion to practice among those who excel in their craft is often referred to as the "10-year rule," a phrase coined by Simon and Chase (1973), which maintains that one must practice his or her skill for at least 10 years to master any field. The 10-year rule is commonly used in the areas of mathematics, music, swimming, middle- and long-distance running, figure skating, field hockey, wrestling, and tennis. To be succinct, practice during the course of skills acquisition essentially makes perfect (Ericsson et al., 1993). However, the theory of deliberate practice still falls under scrutiny by researchers today (Abernethy, Farrow, & Berry, 2003; Bullock, Gulbin, Martin, Ross, Holland, & Marino, 2009).

Research demonstrates practice plays at least some role in athletic success, but how much of a role likely varies based upon individual and sport specific characteristics. Bloom's (1985) model of talent development, although not intended to be sport-specific, is frequently applied to athletic contexts. In Bloom's original research, he interviewed 120 participants, roughly a third of whom were elite swimmers and tennis players, and

developed a three-stage model of talent development. The three-stage Journal for the Education of the Gifted consists of the early years, middle years, and late years. Bloom describes how the intensity of the activity and athlete focus changes over these three time periods. Specifically, practice time increases significantly during the middle years.

The development of appropriate attitudes and behaviours is important (Smircich, 1983) and one important aspect of this process involves the establishment of an appropriate ethos or culture, in order to build a self-reinforcing coherent environment. Research shows that this can be achieved through the development of common identity and commitment that guides individual and goals, reflects appropriate conduct and performance standards, and is reinforced through consistent reward systems (Ashforth and Mael, 1996).

Such development also promotes a social system stability that encourages a positive and reinforcing environment, and helps promote understanding and motivation by explicitly making sense of an organization's function, long-term goals, and links between the two. Of course, implicit influences also play a large part in shaping our expectations and practice (Schein, 1983). These work at a number of levels and, as such, it is imperative that we look at how systems we implement impact across the whole talent development process, how and what they are subsequently reinforcing and promoting.

For example, consider the explicit and implicit 'reinforcement' and 'guidance' that systems give that make it a necessity (and therefore a focus and pressure for all involved) for young developing athletes to reach certain performance standards in order to gain select opportunities or funding. As we have mentioned, consequences of such a system

include a high likelihood that many youngsters with future potential will be missed due to the insistence of providing specialist selective training and opportunities at early ages only to those who perform well.

Evidence suggests it could be almost impossible to 'catch up' once de-selected, resulting in early de-selection meaning permanent de-selection, with a subsequent reduction in talent base and quality at the top. A potential confound relates to the physical maturity benefits to 'performance' at young ages in certain sports, and as such will (when there is a focus on performance!) bias selection policy and opportunity toward certain youngsters, namely those older in their year group (Baxter-Jones and Helms, 1996; Richardson and Stratton, 1999). This initial selection may result a subsequent self-fulfilling process of selection, training, improvement and selection of those initially involved.

Indeed Ward and Williams (2003) concluded that the higher skill levels of 'elite' soccer players as young as 8 are likely to be as a result of the 200 hours of expert coaching they have received as opposed to any genetic superiority. Furthermore, Abbott et al., (2002) highlight that, while this 'school of hard knocks' may produce results through selecting and progressing only those who can consistently produce the goods, it does appear to significantly influence the promotion of 'older, players who are selected at senior level, (Barnley, Thompson, and Legault, 1992), and furthermore many of those born late in the selection year tend to drop out early (Helsen, Starkes and Van Wincle, 1998). Self imposed selection systems are potentially important sources of perceived competence for

young people, as well as developmental opportunities, a factor known to be extremely important for progression (Deci and Ryan, 1985).

Ironically, while the evidence suggests that early selection based only on performance leads to many with potential not getting the necessary opportunities, those who are selected early may also be at a disadvantage. While they will improve initially early achievers may be prone to premature drop out through competitive pressure (Gould et al, 1982; Moore et al., 1998).

Furthermore, those selected may miss crucial (long term) development experiences (e.g., Cote and Hay, 2002) by focusing too much on performance as opposed to learning (Ericsson, 1998). Thus, while many may 'win' at junior levels, they may end up ill prepared to make the important step to senior level and fail to make the transition (Moore et al., 1998; Stfford, 2005).

When we consider the contradiction between advice emanating from the literature and the many systems currently in place, it is clear that much more needs to be done to operationalise our long term aims explicitly. Systems of selection and funding opportunities based on early performance criteria seriously undermine the goals and expectations of long term development plans through the system. For example, many coaches' (plus athletes' and parents') expectations and understanding are shaped by perceived or real rewards for producing 'winning' age group team, whereby selection policies will be influenced by the extent to which youngsters can help a team win at that time, as opposed to providing those with long term potential a good developmental experience.

Of course, the selection criteria for funding also have similar concerns. In other words, representative selection policies, development programmes and funding policies can be to the detriment of individual long-term development, working systematically against the long term national governing body visions developed in the first place. In conclusion, these all too common situations highlight the need to prioritize long-term aims and methods more explicitly through a multitude of contexts throughout the whole lifespan of sporting development.

Building on the work of Bloom (1985), Cote (1999) created the model of sport participation, proposing three alternate stages of sport participation, which he referred to as the sampling years (ages 6–12), specializing (ages 13–15), and investment (ages 16+). The major difference between the Bloom and the Cote models is that Cote's model is grounded in the concepts of deliberate play and deliberate practice. Deliberate practice is defined by Cote as performance with the specific intention of improvement. The model of sport participation hinges on the concept of active participation rather than innate talent, whereas many other models of talent identification and development rely more on identifying innate ability. This research is particularly noteworthy to those interested in talent development, as Cote's work adds to the understanding of an athlete's motivation and evolution of participation in sport.

Helsen et al. (2000) tested the model of deliberate practice in an attempt to understand if practice alone could be responsible for talent development in sport. The research provides evidence of a positive linear relationship between individual practice, team practice, and skill in soccer. One must be motivated to practice and, furthermore, this level of

motivation plays an essential role in high achievement (Ziegler & Raul, 2000). Nieuwenhuis et al. (2002) also noted the psychological factors in athletic talent and suggested that successful teams tend to present higher motivation scores. Notably, high levels of success often do not exist without intense motivation.

Coaches are influential, especially once a step has been taken to become more serious about a sport (Bloom, 1985; Gould et al, 2002). However, they are not the only people to influence young talent, and the importance of the family (Bloom, 1985; Brustad, 1993) and school life is clear (Csikszentmihalyi et al., 1993; Durand-Bush and Salmela, 2002). The contribution of non-pressured preparation, challenge and support helps foster certain skill and attitudes that pay dividends in long-term (Csikszentmihalyi et al., 1993; Cote, 1999; Gould et al, 2002), and the necessary practical and financial support and development of a variety of support networks is often parent led (Bloom, 1985). Indeed, Gould et al, (2002) show that key individuals in athletes' socialization network need to be systematically educated and involved appropriately to foster desirable characteristics

Researchers and coaches alike argue that practice plays a large role in talent development. For example, Howe et al. (1998) noted that genetic differences in ability may become less important with large quantities of practice and training. Hidden within the complicated argument of talent versus practice are the roles of psychological factors, personality traits, motivation, and both the biological and environmental influences of these factors. Indeed, children born with natural athletic ability may be more apt to practice, because practicing may provide a greater internal reinforcement than it does for those children who are less talented. Motivation to practice is an important point, as the

existing research supports the significant role of practice in athletic development. Without proper intrinsic motivation, athletes are less like to commit to sport and continue participation (Anshel, 2003; Gould & Carson, 2004). Based upon the importance of practice, the implication for athletic talent identification is that we should provide numerous opportunities to all children at various developmental stages to build skills, rather than isolate the few children we merely suspect are talented based on uneducated and misguided procedures. The next Tiger Woods, Mia Hamm, or Bret Favre may be what many refer to as a "late bloomer," with a desire to succeed and opportunities for intense practice in overcoming the lack of precocious athletic talent.

Through the empirical and theoretical literature presented earlier, it has been argued that we need to move away from early selection policies and an emphasis on winning at young ages, in part because it is so difficult to predict the ultimate level that someone can reach. Through the same evidence base, with the addition of the evidence presented on the importance of fundamental physical and mental skills, it becomes obvious that these skills need to be systematically developed in as many children as possible from an earl age. Such opportunities for all, providing a foundation of quality physical and mental education, could be initiated successfully through the school system, supplemented by coherent sport and health initiatives.

In turn, this could provide the coherence and consistency required to develop a physically active and talent rich culture, as can be seen in a recent Scottish initiative, the Development of Potential of Young People through Sports (DPYPS) programme (Randak, 2003).

Recommendations for Youth Workers School districts can play an important role in talent identification among youth. The primary need is to educate coaches, teachers, and parents on how to properly identify athletic ability without prematurely excluding children because of delayed or nonprecocious development in cognitive and physical skills. However, not all coaches are properly trained to identify and develop talent. A paramount concern for all involved with youth sport should be to educate coaches and teach them to utilize the same measures and means of identifying and developing talent. Creating educational opportunities and standardized practices should ensure equal opportunity for discovery of talent.

Until then, coaches will continue to use their instincts and personal desire to educate themselves. Helsen et al. (2000) suggested that coaches should provide equal opportunities to all children regardless of perceived talent. These recommendations include practice and playing time as well as a variety of sports pursuits. Scholars support the idea of varied sports for youth, maintaining that an alternate use of the deliberate practice theory may be to focus on diligent practice time across a multitude of sports (Baker, 2007; Coleman, 2007).

Children should not be ruled out as having no athletic potential because of age or physical size. Thus, we recommend that all children are monitored throughout their development for talent potential while encouraging students to try a variety of Journal for the Education of the Gifted of sports. The various manifestations of the School wide Enrichment Model (Renzulli, 2000), which facilitate children being exposed to numerous activities, appear to be appropriate for use in this context. For example, although a

student may not be considered talented at soccer, she may excel at swimming. Coaches and children simply will not know where talent potential could be hiding until the child tries new activities.

The findings of Fraser-Thomas, Cote, and Deakin (2008), Magill (2007), and Wall and Cote (2007) strongly encourage the diversification of sport pursuits. In addition, research suggests that participation in a variety of sports may assist in skill development rather than hinder development (Magill, 2007; Wall & Cote, 2007), debunking a common myth. The existing research on athletic talent development provides evidence that some children may not reveal talent until young adulthood and/or after considerable practice. Helsen et al. suggested that coaches should be aware of the importance of the optimal content and amount of practice as related to long-term sports success.

In addition, schools and coaches should be aware of the talent development stages presented by Bloom (1985) and Cote (1999). Knowledge of the athletic developmental stages may assist with the level of attention and practice time given to individual children. However, coaches must be mindful that children mature both physically and mentally at different rates. Taking this into account could lead to additional nurturing of skills and ultimately more talented athletes.

Further, schools, programmers, and coaches should have policies on recruitment and retention. Green's (2005) exploration of the Pyramid Model of Sport Development noted three necessary tasks for an effective pyramid model and sport policy development: athlete recruitment that relates to how athletes become involved in a sport, athlete retention that focuses on how to keep athletes involved and enhance their commitment,

and athlete transitions that strive to ensure their advancement, particularly those who show potential to excel.

Additionally, Green emphasized the importance of motivation, socialization, and commitment in athletic success as essential elements in sport development. These findings suggest that sports programmers must attend to a variety of social and emotional needs and connections of the children they work with, in addition to coaching the sport. However, youth sport workers should maintain caution regarding pyramid-based development systems, as sequential levels do not assure athlete progression. Athlete progression requires effective linkages between levels and solid communication within the pyramid. Programs must have an efficient means to identify when athletes are ready for transition and to facilitate adjustment to programs at advanced levels (Green, 2005). Although we have touted the importance of practice on talent development, Wall and Cote's (2007) study on elite ice-hockey players revealed that dropout rates were higher for youth who began training regimens at a younger age and who participated in more office training between the ages of 12 and 13.

Overexposure and dropout do have a connection and must be considered by youth sport workers. Wiersma (2000) suggested that the need to restrict training hours based upon age is fast approaching. Youth workers must learn to understand and manage this delicate balance of practice intensity, natural talent, and burnout. A child's intrinsic motivation may help guide these decisions.

Abbott and Collins (2002) highlighted the need to ensure that all children are provided with opportunities to develop the psychomotor and psychobehavioral factors proposed as

precursors to successful development in sport. The researchers further maintained that development opportunities should be provided, and children's progress monitored, prior to any selection into or elimination from a talent development program (Abbott & Collins, 2002). Practice, nurturance, and psychological influences of sport have been presented throughout the literature as significant factors in talent development. School districts and community sports organizations can provide all of these elements to children in an effort to assist with identification and development of talent. Perhaps our focus with youth sports should be on development rather than solely upon identification.

One cannot underestimate the importance of school districts and community sports organizations utilizing all available community resources. Sports committees including members who are well-educated in the elements of talent identification will be invaluable, especially if they will oversee athletic programs. Given the current budget constraints of school systems, committee positions could be voluntary. Committees could consist of members from the school board, current coaches, and parents. A committee would benefit from opportunities to attend workshops on talent identification and development. When assessing talent, coaches and educators should pay particular attention to dates of birth and maturity to avoid the problem of under-identification based upon age. When identifying athletic talent, concerted efforts should be made to look specifically for the potential of physical skill, cognitive skill, motivation, and attitude. Parental education is also a matter of concern for school districts (Wolfenden & Holt, 2005), given that parents provide significant emotional and logistical support to young athletes. Schools must consider the impact of parents and utilize every opportunity to

educate parents as well as coaches and teachers regarding talent identification and development.

Summary of Literature Reviewed

Research suggests that athletic talent is rarely identified with much accuracy, especially early in a child's development. Sadly, talent selection methods are often sporadic, lack criterion, and those selecting are uneducated regarding identification of athletic talent. The average citizen involved in sports can identify a coach who truly believes that he can spot athletic talent simply by watching young players briefly. The recent bestseller, Moneyball by Michael Lewis (2004), provided several colourful examples of conflict between athletic talent scouts who "know talent when they see it" and statisticians who rely on prior performance. Those who rely on prior performance are much more statistically relevant.

Clear evidence exists that age and physical ability can identify or rule out youth regarding potential to excel in a sport (Baxter-Jones et al., 1994; Dudink, 1994; Edwards, 1994; Helsen et al., 2000), yet identification of athletic talent frequently confounds athletic skill and potential with physical maturity. This problem increases as the age of the children being considered decreases.

Talent identification models are still being used despite notable laws in the design and inability to predict future performance ability (Abbott & Collins, 2002). Furthermore, the authors note that the key question in designing and developing talent identification models is, which characteristics indicate that an individual has the potential to develop in sport and become a successful senior athlete? (Abbott & Collins, 2002, p. 157). Several

models have been proposed and examined in order to identify talent, but their usefulness is often questionable. The importance of identifying and developing talent is evident by the tremendous attention it receives at all levels, from organized sports programs for very young children to professional league scouting, yet researchers continue to struggle to create reliable and valid strategies for identifying athletic talent.

We understand the desire many feel to identify the next sport prodigy such as Tiger Woods, Michelle Wie, or Freddy Adu. But children who develop physically and mentally at the lower end of the normative developmental spectrum have been discounted as nontalented when they might actually present as talented later in their childhood.

Sadly, these children are likely to be ignored because they did not show evidence of talent to the right people at the right time. As a result, these late bloomers are likely to lose interest in a sport due to lack of encouragement or even explicit discouragement. Coaches, educators, and parents should find ways to nurture athletic interests in children, especially given the multiple potential contributors to athletic talent, some of which may not emerge at a young age, and the variation in children's physical development. We simply cannot allow children to lose the positive benefits sports offer simply because we wrongly believe that they do not have enough talent to excel.

CHAPTER THREE

METHODOLOGY

The purpose of this research was to establish factors which contribute to non participation and non performance by student potential athletes in competitive sports and examine the extent to which trained talented athletes would influence performance of Wa Polytechnic at GHAPSA competitions. As a means of producing a valid project, the writer found it expedient to contact Sports Managers and Help-coaches for information. This chapter was discussed under the following sub-headings;

1. Research Design
2. Population
3. Sample and sampling Procedure
4. Instrumentation
5. Validity and Reliability of Instrument
6. Data Collection
7. Analysis of Data

Research Design

According to McMillan and Schumacher (1972), research design refers to a plan for selecting subjects, research sites and data collection procedure to answer the research questions. The goal of a sound research design is to provide results that are judged to be credible. Santosh (1993) identified research designs as the plan, structure and strategy of investigating so as to obtain answers to research questions and control variance.

The type of research design used for this study was a descriptive survey. Fraenkel and Wallen (2003) refer to descriptive survey as collection of information on a group of people so as to describe aspect or characteristics (opinions, beliefs, attitudes, abilities and knowledge. Descriptive survey aims at collecting data and describing in a systematic manner the characteristics, features or facts about a given population.

The research was designed to assess and evaluate the impact of training talented athlete team and using it against an untrained side in the same Polytechnic to ascertain improved performance. It also assessed through questionnaires for help-coaches and athletes, interviews of Sports Coaches and observation of some coaches during practical lessons to find out if it is yielding.

3.0 Population

A careful examination of the nature and scope of the project necessitated the use of samples from two populations: Help-Coaches and Student-Athletes.

3.1 Sample and Sampling Procedure

Help-coaches and student-athletes were selected from Wa, Polytechnic. Even though the selection of the three (3) help-coaches was purposeful, the simple random sampling technique was used to draw the three coaches from a total of six (6) help-coaches. In getting the sample athletes, the six (6) departments in Wa Polytechnic namely: Accountancy, Secretaryship and Management Studies (SMS), Information and Communication Technology (ICT), Civil Engineering, Agricultural Engineering and

Estate Management were considered before five (5) students were drawn from each, making thirty (30) with aid of help-coaches. Total number of respondents stood at thirty-three (33) comprising fourteen (14) male athletes, sixteen (16) female athletes and three (3) help-coaches.

3.2 **Instrumentation**

The instruments used to gather data were questionnaires, interviews and observations. The interviews were designed for the Sport Coaches of different sports. The questions for the interviews were intended to find out whether talent identification and development can influence performance in competitive sports.

Questionnaire

The questionnaire for the Help-coaches and athletes were also structured with suggested answers which they ticked as appropriate responses to the questions in their opinion. In all thirty-three (33) questions were structured for both the Help-coaches and for the student athletes.

For the Help-coaches' questions were based on:

1. The role and involvement of coaches in the talent identification and development programming.
2. The utilization of important skills acquired to support precision in competitive sports.
3. The provision of motivation and encouragement for athletes to perform their best.

3.3 **Interview**

Interviews were conducted for the Help-Coaches. The researcher personally interviewed the Help-Coaches during the training period. The questionnaires to the Help-Coaches were distributed personally with introductory letters attached. The interview was done on face-to-face basis. The student athletes' questionnaires were administered with the help of the Help-Coaches.

3.4 **Observation**

For the observation, three (3) for different components of the circuit training in volleyball were observed during the teaching of practical PE lessons. Attainment of right posture, timely reaction, attention, concentration and coach's instructions were also observed during the observation to ascertain the reality of the training process.

Observations were also made on Help-Coaches who taught the practical lessons. Of the total of thirty-three (33) questionnaires sent out for the Help-Coaches and students athletes, only thirty (30) were returned (90.9%).

Validity and Reliability of the Instrument

In this study the questionnaire items used were initially subjected to face and content scrutiny by the researcher in consultation with the supervisor, as well as other professional colleagues to find out their (questionnaire item) relevance, clarity and simplicity and also to ensure that they relate to the objectives of the study.

Care was taken to ascertain that the items on the questionnaires were guided by the pertinent views from the literature review, as well as driven by the research questions posed. Following the face and content validation, a pilot test was undertaken to further validate the research instruments and also to estimate the reliability of the questionnaires before they were used in the actual study.

3.5 **Collection of Data**

The researcher personally interviewed the three Help-Coaches that were responsible for the training of the athletes during the training process. The guidelines as to how to answer the questions were indicated on the questionnaires. Further explanations were given to facilitate effective responses.

3.6 **Analysis of Data**

The data obtained from the research were analyzed in percentages with tables showing responses from Help-Coaches and student athletes. The questionnaire was analyzed sequentially and separately depending on the demand of each question on Statistical Presentation System Software (SPSS).

CHAPTER FOUR

FINDINGS AND DISCUSSION

The essence of this research work was to help improve the identification and development of athletes in Wa Polytechnic, encourage sport coaches and Management to embrace the concept of talent identification and development programmes for optimal performance.

For valid data collection, the researcher personally structured questionnaires that were administered on help-coaches and athletes of Wa Polytechnic.

Three help-coaches with some level of professional qualification and thirty student-athletes were assessed.

4.0 Findings

Table 1 Students' Enrollment

Academic Year	Female	Male	Total
2006/2007	502	522	1024
2007/2008	641	629	1270
2008/2009	723	683	1406
2009/2010	748	765	1513
2010/2011	805	784	1589

From the table above, it clear that students' enrollment of Wa Polytechnic keeps increasing year after year. Despite these increments, sports performance of Wa

Polytechnic at Ghana Polytechnic Sports Association (GHAPSA) competitions does not improve in commensuration of the increasing numbers.

4.1.0 Help-Coaches' Responses to Questionnaires

Responding to whether athletes are admitted based on their talent in sports, all three help-coaches representing 100% strongly disagree to this assertion.

As to whether management body support is required in the identification and management of sport talents, all the three help-coaches representing 100% strongly agree.

On whether talent programming and management should be linked to individual growth and and interest in academics, all the three help-coaches representing 100% agree.

On the issue of whether talent programming and management should be linked to institutional growth and development, all three help-coaches agree.

Table 2. Coaches' Demonstration of Readiness and Interest in Talent Programming and Management

Variable	Frequency	Percent
SA	2	66.7
A	1	33.3
D	0	0
SD	0	0

On the table above, it is clear that 2 help-coaches representing 66.7% strongly agree that coaches demonstrate readiness and interest in talent programming and management.

On whether lack of admission concession to athletes could be a factor limiting the potential of talent programming and management, all three help-coaches representing 100% strongly agree.

Concerning whether management body should demonstrate support for talent programming and management, all three help-coaches (100%) agree.

Table 3. Coaches Demonstrating Support for Talent Programming and Management

Variable	Frequency	Percent
SA	1	33.3
A	2	66.7
D	0	0
SD	0	0

On the issue of whether coaches demonstrate support for talent programming and management towards ensuring welfare of sportsmen and women, 2 help-coaches representing 66.7% agree whilst 1 (33.3%) strongly agree.

As to whether programme and management characteristics are similar among Polytechnics in Ghana, all three help-coaches agree representing 100%.

Table 4. Lack of Extrinsic Motivation as a Factor Limiting the Potential of Talent Programming and Management

Variable	Frequency	Percent
SA	1	33.3
A	2	66.7
D	0	0
SD	0	0

On the lack of extrinsic motivation as a factor limiting the potential of talent programming and management, 2 help-coaches representing 66.7% as indicated on the table above agree whilst 33.3% strongly agree.

4.2.1 Student-Athletes' Questionnaires

Table 5. Admissions Based on Talent in Sports

Variable	Frequency	Percent
SA	0	0
A	2	16.7
D	4	33.3
SD	6	50

On the above out of 12 responses on admissions based on talent in sports, 6 responses representing 50% strongly disagree with the assertion that admissions to athletes were based on talent in sports.

Table 6. Performance in Sports Linked to Individual Growth and Interest in Academics

Variable	Frequency	Percent
SA	1	8.3
A	3	25.0
D	4	33.3
SD	4	33.3

As to whether performance in sports is linked to individual athlete's growth and interest in academics, 4(33.3%) strongly disagree, 4(33.3%) disagree, 3(25%) agree and 1(8.3%) strongly agree.

Table 7. Effects of Lack of Residential Accommodation on Talent Management Programming

Variable	Frequency	Percent
SA	1	8.3
A	7	58.3
D	2	16.7
SD	2	16.7

On the issue of whether the lack of residential accommodation affects talent management programming, 7(58.3%) agree to that.

Table 8. Talent Management Programming Linked Institutional Growth

Variable	Frequency	Percent
SA	0	0
A	5	41.7
D	5	41.7
SD	2	16.7

On whether or not talent management is linked to institutional growth, 5(41.7%) agree and 5(41.7%) disagree.

Table 9. Admitting qualified athletes for Talent Management Programming

Variable	Frequency	Percent
SA	1	8.3
A	3	25.0
D	4	33.3
SD	4	33.3

Responses on whether admissions given to athletes with requisite entry requirements will support and promote talent management programming, 4(33.3%) strongly disagree whilst 4(33.3%) disagree.

Table 10. Motivation by Coaches

Variable	Frequency	Percent
SA	3	25.0
A	6	50.0
D	1	8.3
SD	2	16.7

As to whether actions of coaches are motivating to athletes, 6(50%) agree whilst 3(25%) strongly agree.

Table 11. Similarities in Programme Characteristics

Variable	Frequency	Percent
SA	4	33,3
A	6	50.0
D	2	16.7
SD	0	0

Responding on similarity in programme characteristics among all Polytechnic, 6(50%) agree whilst 4(33.3%) strongly disagree.

Table 12. Support by Coaches talent Management Programming

Variable	Frequency	Percent
SA	1	8.3
A	6	50.0
D	3	25.0
SD	2	16.7

The question of whether actions of coaches demonstrating support for talent management programming is a mere verbal encouragement, 6(50%) agree whilst 3(25%) disagree.

Table 13. Effects of Extrinsic Motivation

Variable	Frequency	Percent
SA	4	33.3
A	7	58.3
D	1	8.3
SD	0	0

On the issue of whether lack of motivation limits the potential of talent management programming, 7(58.3) agree as against 4(33.3%) who strongly agree.

Table 14. Lack of Support and Equipment Limits the Potential of Talent Management

Variable	Frequency	Percent
SA	6	50.0
A	5	41.7
D	1	8.3
SD	0	0

As to whether the lack of support and equipment limits the potential of talent management, 6(50%) strongly agree whilst 5(41.7%) agree.

4.2 Discussion

4.2.1 How Talents are Identified

There was a higher percentage indicating that almost all the help-coaches strongly disagree that athletes are admitted based on their talent in sports; and also agree that support from management body is crucial for the identification and management of sports talents. Lack of knowledge in policies of recruitment may hinder talent identification and

development. Programmers, schools and coaches should have policies on recruitment and retention.

Green's (2005) exploration of the Pyramid Model of Sport Development noted three necessary tasks for an effective pyramid model and sport policy development: athlete recruitment that relates to how athletes become involved in a sport, athlete retention that focuses on how to keep athletes involved and enhance their commitment, and athlete transitions that strive to ensure their advancement, particularly those who show potential to excel.

Additionally, Green emphasized the importance of motivation, socialization, and commitment in athletic success as essential elements in sport development. These findings suggest that sports programmers must attend to a variety of social and emotional needs and connections of the children they work with, in addition to coaching the sport. However, youth sport workers should maintain caution regarding pyramid-based development systems, as sequential levels do not assure athlete progression. Athlete progression requires effective linkages between levels and solid communication within the pyramid. Programs must have an efficient means to identify when athletes are ready for transition and to facilitate adjustment to programs at advanced levels (Green, 2005).

4.2.2 How Talents are Managed

Data gathered from responses by help-coaches indicated that lack of extrinsic motivation is one factor limiting the potential of talent programming and management. Athletes need

to be urged on, praised and appreciated by their colleagues and spectators to enable them put in more energy where required.

Researchers found that key psychological behaviours such as motivation and learning strategies are essential to the talent development process both in sport and other performance areas. Meta-cognitive strategies have been shown to enhance achievement among numerous disciplines including education and sport (Kreiner-Phillips & Orlick, 1992; Zha, 1993).

Identifying Athletic Talent associated with becoming a renowned athlete or being associated with a "talented" athlete. Motivations for fostering and identifying athletic talent may be ego driven by the desire to be associated with an athlete who achieves widespread athletic notoriety. Less extrinsically motivated reasons for talent identification and development also exist, such as the opportunity to develop self-esteem, social skills, and physical and mental abilities. Researchers recognize the importance of effective talent identification and development due to the psychological ramifications of dropout or failure to achieve among youth (Wall & Cote, 2007).

4.2.3 Problems Associated with Identification of Talents

There was also an indication by 67% of help-coaches who assert that, coaches should demonstrate readiness and interest in the programming and management of sports talents while 33.3% strongly agree. There is the need for coaches to practice their professional ethics in showing interest in identifying sports talents and ready to develop them, too.

4.2.4 Problems Associated with the Management of Talents

There was also a high percentage indicating that there was a lack of concession for talented sports men and women. Most students complained of lack of concession for athletes; and therefore wish to back out of sports.

The study also did indicate that coaches should demonstrate support for effective talent programming and management by ensuring the welfare of athletes. Coaches should be seen as people who can direct, guide and monitor the behaviours of athletes towards achieving a better lifestyle, but coaches lack the support of management body it becomes very difficult maintaining these athletes.

Coaches are influential, especially once a step has been taken to become more serious about a sport (Bloom, 1985; Gould et al, 2002). However, they are not the only people to influence young talent, and the importance of the family (Bloom, 1985; Brustad, 1993) and school life is clear (Csikszentmihalyi et al., 1993; Durand-Bush and Salmela, 2002). The contribution of non-pressured preparation, challenge and support helps foster certain skills and attitudes that pay dividends in long-term (Csikszentmihalyi et al., 1993; Cote, 1999; Gould et al, 2002), and the necessary practical and financial support and development of a variety of support networks is often parent led (Bloom, 1985).

There was a high percentage of athletes indicating a high level of motivation by coaches, which make them confident to perform sporting activities.

The study also indicated lack of equipment as a factor contributing to the problem of talent identification and management. This appears to be the reason why most schools lack enough training facilities and equipment. Supporting this assertion, equipment plays a major role in skill acquisition.

The study also indicated that there was a percentage of 58 of student-athletes that agree to the fact that lack of residential accommodation on campus is affecting talent identification and development programmes in the school.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The research is intended to analyze talent identification and management programmes in Wa Polytechnic of the Upper West Region.

5.0 Summary

The findings of the study did indicate that concession to sportsmen and women was less than 1%. All strongly agree that there was lack of concession to athletes.

On the admission of athletes with the required qualifications as a recipe for the projection of the school in, a higher percentage of respondents agree. Same percentage of 41.7 strongly agrees that admitting qualified athletes will project the name of the school.

Lack of residential accommodation to students affects talent programming and management. Transportation to and fro campus for sport practice costs.

The study revealed that all the help-coaches assert that talent programming and management is not linked to individual interest and growth in academics. The assertion here is that, there is a missing link between sports performance and academic work. This might mean that there is programming cannot assist athletes attain sport and academic excellence.

The study showed that 66.7% agree to lack of extrinsic motivation as one of the factors limiting the potential of talent programming and management. The lack of extrinsic

motivation to athletes may have been management's attitude and interest towards sports. Lack of interest or negative attitude towards will seriously hinder the practice of talent programming and management.

Both help-coaches and athletes indicated lack of equipment as an external factor affecting the potential of talent programming and management. Interest in sports, readiness to take part in sports and benefit from undertaking sporting activities will not materialize without the availability and efficient use of equipment.

5.1 Conclusion

With regards to the findings of the research, the following conclusions are made:

1. Athletes are not admitted based on their talent in sports. This explains the difficulty that confronts talent identification and development programming.

2. The provision of sporting facilities and equipment for practice appears insufficient. Therefore, engagement time in skill acquisition is inadequate.

3. Lack of residential accommodation to students affects talent programming and management. Even though a day has been allocated for sports, student-athletes find it difficult returning to campus practice in sports.

4. It appears management body does not use sports fees for their intended purpose.

5. There appears to be lack of motivation to students who engage in sports. It is expected that the researcher will help management understand the needs of athlete

and sporting activities; and draw a balance between sports performance and academic work.

5.2 Recommendations

Based on the findings and conclusion of this research, the following recommendations are made:

1. The management body of Wa Polytechnic should increase admission quota for sportsmen and women with the required qualifications to enable more sportsmen and women enroll into the institution.

2. Sports fees could be increased within the threshold when funds are insufficient to provide the needed sports equipment and facilities.

3. Distinguished athletes could be given some discount in the payment of their school fees to enable them take care of other sporting needs that require money.

4. The school should institute award packages in cash or kind or citations for deserving athletes, and management body should regularly be seen as a means of motivation.

5. The management body support talent management programming by allowing sportsmen and women postpone for re-sit their examinations that fall within sports competition periods.

6. Management body should work with the sport coaches and offer sport coaches the necessary support to be able to project the school through sports.

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APPENDIX 1

QUESTIONNAIRE FOR ATHLETES IN WA POLYTECHNICS

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, RECREATION AND SPORTSION

UNIVERSITY OF EDUCAT, WINNEBA

The researcher is a graduate student in the Department of Health, Physical Education, Recreation and Sports of the University of Education, Winneba. He is conducting a research on the identification and management of sports talents .in Wa Polytechnic. The questionnaire is meant for sportsmen and women who are athletes of Wa Polytechnic. You are requested to respond as candidly as possible and your responses will be treated with the strictest confidentiality.

SECTION A: BIO-DATA OF RESPONDENT (STUDENT)

Please tick [√] the option, or against the statement that is most appropriate to you.

1. Sex: Male [ ] Female [ ]

2. Age: 18-22 [ ] 22-26 [ ] 30-34 [ ] 35-39 [ ]

3. Residential accommodation

School [ ] Renting [ ] Self [ ] None [ ]

4. How long have you been a sportsman or woman?

1-3 years [ ] 3-5 years [ ] 5-7 years [ ] 7-9 years [ ] 9 and above [ ]

5. What type of sport do you play?

Soccer [ ] Volleyball [ ] Handball [ ] Basketball [ ]

Section B

Please indicate the degree to which you agree or disagree to the following statements:

SA= Strongly Agreed A= Agreed D = Disagree SA= Strongly Disagreed

	IDENTIFICATION AND MANAGEMENT OF TALENTS	SA	A	D	SD
1.	You were admitted based on your talent in sports				
2.	Performance in sports linked to your individual growth and interest in academics				
3.	Lack of residential accommodation for students on campus is affecting talent identification programmes				
4.	Talent management programming is linked to institutional growth				
5.	Admission of qualified athletes will facilitate talent identification and management programmes and also project the school				
6.	Actions of coaches is motivating to athletes				
7.	Programme characteristics are similar in all Polytechnics in Ghana				
8.	One action of coaches that demonstrates support for talent management programming is verbal encouragement for athlete				

9.	Lack of extrinsic motivation is one internal factor that limit the potential of talent management programming				
10.	Lack of support and equipment to athletes is one external factor that can limit the potential of talent management programming				

APPENDIX 2

QUESTIONNAIRE FOR HELP-COACHES IN WA POLYTECHNICS

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, RECREATION AND SPORTSION

UNIVERSITY OF EDUCAT, WINNEBA

The researcher is a graduate student in the Department of Health, Physical Education, Recreation and Sports of the University of Education, Winneba. He is conducting a research on the identification and management of sports talents .in Wa Polytechnic. The questionnaire is meant for sportsmen and women who are athletes of Wa Polytechnic. You are requested to respond as candidly as possible and your responses will be treated with the strictest confidentiality.

SECTION A: BIO-DATA OF RESPONDENT (HELP-COACH)

Please tick [√] the option, or against the statement that is most appropriate to you.

1. Sex: Male [ ] Female [ ]

2. Age: 25-29 [ ] 30-34 [ ] 35-39 [ ] 40-44 [ ]

3. Marital Status:

Single [ ] Married [ ] Separated [ ] Divorced [ ] Widowed [ ]

4. How long have you been working as a help-coach?

1-3 years [ ] 3-5 years [ ] 5-6 years [ ] 6-7 years [ ] 7 and above [ ]

5. What type of sport do you coach?

Soccer [ ] volleyball [ ] basketball [ ] handball [ ]

Section B

Please indicate the degree to which you agree or disagree to the following statements:

SA= Strongly Agree A= Agree D = Disagree SA= Strongly Disagree

	IDENTIFICATION AND MANAGEMENT OF TALENTS	SA	A	D	SD
1.	Athletes are admitted based on talent in sports				
2.	Management body support is required in the identification and management of sports talents				
3.	Talent programming and management should be linked to individual growth and interest in academics				
4.	Talent programming and management should be linked to institutional growth and development				
5.	Coaches should demonstrate readiness and interest in talent programming and management				
6.	Lack of admission concession to athletes is one external factor limiting the potential of talent programming and management				
7.	Institutional management should demonstrate support for talent programming and management				
8.	Coaches should demonstrates support for talent programming and management, ensuring the welfare of sportsmen and women				

9.	Programme and management characteristics are similar among Polytechnics in Ghana				
10.	Lack of extrinsic motivation is one internal factor limiting the potential of talent programming and management.				

APPENDIX 3

INTERVIEW CONDUCTED ON HELP-COACHES

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, RECREATION AND SPORTSION

UNIVERSITY OF EDUCAT, WINNEBA

The researcher is a graduate student in the Department of Health, Physical Education, Recreation and Sports of the University of Education, Winneba. He is conducting an interview on the identification and management of sports talents .in Wa Polytechnic. You are requested to respond as candidly as possible; and your responses will be treated with the strictest confidentiality.

1. For how long are you been connected with Polytechnic sports?
2. How do you select your athletes for sports competitions?
3. Is there a criterion for recruiting athletes into Wa Polytechnic?
4. Are there motivational packages for distinguished athlete?
5. How would you rate the performance of Wa Polytechnic at GHAPSA level?
6. Is talent identification and management programming practiced in Wa Polytechnic?

7. To what extent would talent identification and management promote performance at competitive sports competition?
8. Are there adequate equipment and facilities for sports?
9. What has the stand of management been when competitions clash with examinations?
10. What importance role does sport play in projecting the name of Wa Polytechnic?

Thank you very much for the time