Modes and challenges in sports talent identification at senior high schools in Upper East Region, Ghana

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ABSTRACT

Although there are athletic programmes at the senior high schools in the Upper East Region, the question is whether there are certain institutionalised programmes that help identify athletic talent and facilitate the development of student-athletes to the top of their athletic careers. This study was aimed at examining modes and challenges in sports talent identification in Senior High Schools (SHSs) in the Upper East Region (UER) of Ghana. In this cross-sectional study, 203 sports coaches (123 men and 80 women sports coaches) in SHSs in the UER participated in the investigation. These group of individuals were chosen for the investigation since the core responsibility of identifying and developing sports talents lies with them. Data was collected using a questionnaire from which generalisation could be made about modes and challenges in sports talent identification. Descriptive statistics such as frequencies and percentages were calculated using SPSS version 25 (data analysis software). The results of the study revealed that the common mode of identifying talented student-athletes was through observation by coaches (90.6%). Also, limited financial resources (82.3%), judging coaches' competence by their teams' performance in competitions (73.9%), and early talent identification (69.0%) were identified as major challenges in sports talent identification. In conclusion, most coaches employ the natural selection method in identifying sports talents, therefore, many sports talents in Senior High Schools in Upper East Region are over looked because they are not currently participating in the sports. Adequate financial resources are not allocated for sports talent identification in SHSs in the UER and much focus is placed on winning SHS competitions to the detriment of recognizing the potential for future success in sports performance among student-athletes.

KEYWORDS

Sports Talent Identification; Scientific Selection; Natural Selection; Sports Coach

1. INTRODUCTION

As future leaders and innovators, talented student-athletes are valuable natural resources to any country (Bailey & Collins, 2013). Identifying an individual's potential, particularly in sports has grown tremendously. Globally, talent identification and its challenges might be different from one country to another. In countries such as Germany and Australia, talent identification is generally based on "scientific selection" (Krasilshikov, 2010). Meanwhile, talent identification in China were based on natural selection (Pitkethly & Lau, 2015). In South Africa, there exists a problem with the small portion of the talent that grows to its capacity, because there is no well-defined sports talent identification system (Lambert, 2002). Sports talent identification plans in Nigeria are hampered by political and economic challenges (Toyin, Timothy & Oladayo, 2015). A relevant review of the literature did not identify any work done on sports talent identification and challenges at Senior High School level in the Ghanaian context.

Empirical studies in Europe, North America, and Australia predominantly provide the basis for current literature on identifying sports talent (Krasilshchikov, 2010). This is particularly essential to note, considering that there is significant proof to demonstrate that sports talent identification is cultural and context-specific (Lund & Sooderstorm, 2017). It relies on the country's culture, the intricacy of the sport, as well as the sports facilities or infrastructure available. Hence the need to conduct the study to fill the knowledge gap. This study aimed to examine modes and challenges in sports talent identification in Senior High Schools in the UER of Ghana.

Talent is an exceptional ability, a capacity for fulfillment (Bennett, Vaeyens & Fransen, 2018). Sports consist of all competitive physical activity that, through organized participation, maintains or improves physical ability and skills while providing entertainment to spectators (Howells & Fletcher, 2015). Lund & Soderstorm (2017) asserted that the act of identifying current participants who have the potential of becoming exceptional athletes is known as sports talent identification.

Over the years, diverse methods of identifying talents for various sports have been presented. These models were created to uncover the supposed underlying mechanisms of potential and to give a method for identifying such characteristics in a group of promising sports performers. There are two prominent ways in which promising sports performers (i.e., athletes) are noticed in sports

(O'Connor, Larkin & Williams, 2018). These are; (a) natural selection, and (b) scientific selection. In "natural selection", the potential of the individual to excel in a particular sport is expected to manifest when participating. Individuals may participate in that particular sport as a result of parental interest, the closeness of amenities, or the prominence of the sport in that particular geographical location. To Sarmento, Anguera, Pereira & Araujo (2018), natural selection based on subjective assessment is currently the principle or approach employed by the NGBs. Badminton, for example, almost exclusively chooses talented youngsters based on merit, with achievement only possible via involvement in geographically scattered and "pay-as-you-enter" competitions. Countries with substantial human resources such as China, the United State of America, and India use natural selection to identify sports talents (Krasilshchikov, 2010).

The "scientific selection" procedures may be thought of as a proactive system because of how talented athletes are identified. Talent detection programmes across the world are not strongly based on scientific logic (Bailey & Collins, 2013). Coaches rely on subjective assessment based on their "eye for talent" (Christensen, 2009) and their experience (William & Reilly, 2000).

Unquestionably, a lot of issues in sports talent identification diminishes the coach's judgement in predicting which individuals have the potential of becoming elite athletes. Various sport institutions are focusing on identifying and selecting potential throughout the early stages of development since there is a rising interest in providing the most beneficial conditions for developing athletes. In a severe instance of this phenomenon, a Dutch soccer club hired an 18-month-old to a 10-year "symbolic" agreement in 2011 (Barreiros & Fonseca, 2012).

This argument assumes that talent is a constant ability that (a) can be detected early in development and (b) does not vary with time (Bergkamp, Niessen, Den Hartigh, Frencken & Meijer, 2019). In general, evidence in sports promoting early signs of talent is shaky (Brouwers, De Bosscher & Sotiriadou, 2012), ostensibly because indicators of premature overall output success (e.g., height, weight) have little relation to the features recognizing accomplishment at the adult level (Barreiros & Fonseca, 2012). (i.e., such bodies are generally similar in quality terms). The second hypothesis, that talent is a fixed capacity that does not fluctuate through time, has been debunked as well (O'Connor et al, 2018). Simonton posited a more genuine explanation of talent as a multi-faceted quality that reflects the relative contribution of personal, biological, intellectual, and attitudinal attributes that facilitate or hinder the knowledge acquisition in a domain in his emergence and epigenetic model of talent. These attributes arise at varying rates for different people at different times of their growth, according to this hypothesis. As a result, early detection of these features is difficult since they no

longer compensate for these modifications. Early talent identification has been discussed as an issue in sports (Abbott et al., 2005; Davids et al., 2013), highlighting the difficulties of identifying these traits early.

Furthermore, individuals' attitudes toward talent impact motivation, behavior, and performance, according to empirical investigations over the previous 30 years (Wulf & Lewthwaite, 2009). This study, dubbed the "Growth Mindset" (Dweck, 1999), reveals that individuals have either inherent ability beliefs or acquirable skill development views regarding the origins of their skills (Wulf & Lewthwaite, 2009). These views show whether a person feels that their overall performance is the result of intrinsic and unchanging features or is the result of experiences and hence changeable. Dweck (1999) stressed that individuals who believe talents have intrinsic origins typically ascribe anybody else's performance, whether desirable or terrible, to their innate degree of potential, whereas those who believe competencies are "developable" frequently attribute others' total performance to their level of effort. Such ideas according to Dries (2013) also influence whether practitioners have a singular impression about talent (i.e., just a small quantity of people are born with it) or if they recognize talent in every person and use an elaborative strategy in managing talent. In this light, it has a big impact on how trainers make predictions. When a trainer determines somebody has potential for further growth, they are projecting a variety of future sporting results. Importantly, research shows that firmly adhering to one notion or method of thinking is linked to worse prediction accuracy (Grossmann & Lames, 2015). When people feel that ability is either intrinsic or developable, they might make Type I and Type II mistakes when it comes to identifying and improving skills. That is, thinking that genius exists and can be cultivated when it does not, and thinking that talent no longer exists and cannot be created when it does.

It is also clear that having access to economic materials and having a high socioeconomic status (SES) might thwart the person's capacity to become a high performer. In general, evidence suggests that family wages are strongly linked to athletic involvement. According to Heritage Canada (2013), while 58 percent of Canadian kids from families earning below $40,000 participate in sports, 85 percent of students from families earning above $80,000 do so. Erstwhile studies in this field have shown that SES constraints to involvement in high-performance sports are consistent (Bailey & Collins, 2013).

Sports no longer adhere to a regular pattern (Baker, Wattie & Schorer, 2015). Baker and colleagues looked at how athletes adjusted over time in Olympic sports and reported overall output for athletic and aquatic events, noting the wide range of advancement in various sports activities after

some period. The difficulty of reconciling short and long-term objectives is one of the obstacles in conventional athletic talent identification techniques. In the United States, this contradictory reality may be seen in a variety of high school and college sports (Pearson, Naughton & Torode, 2006). Coaches in such systems are judged on their team's short-term performance, such as their win-loss record or how well they do in a crucial event (Barreiros, Cote & Fonseca, 2014; Barreiros & Fonseca, 2012). Coaches and scouts no longer choose players only on based on skill, especially reachable talent, throughout this process. They are looking for those who can do well in a short amount of time. The study aims at examining modes and challenges in sports talent identification in Senior High Schools (SHSs) in the Upper East Region (UER) of Ghana.

2. METHODS

2.1. Participants

In this cross-sectional study, the population consisted of all sports coaches at the Senior High School Level in the Upper East Region. These group of individuals were chosen for the investigation since the core responsibility of identifying and developing sports talents lies with them. There were 80 females and 123 male coaches at the SHS level in the region (Upper East Regional Physical Education Unit, 2021).

The census technique was used to include all 203 coaches of various disciplines in all the SHSs in the UER because the population was small hence it was possible to collect data from each member (Ogah, 2013) (Table 1).

Table 1. Population and sample of the study

Sports	Population Number	Sample Number
Badminton	3	3
Volleyball	31	31
Handball	13	13
Basketball	6	6
Table tennis	4	4
Football	103	103
Hockey	6	6
Athletics	25	25
Netball	12	12
Total	203	203

2.2. Instrument

In this study, a quantitative descriptive survey design was used because it is versatile and applicable for answering questions in research (Ogah, 2013). Also, it helped to accentuate objective measurement through record of opinions using computational techniques (Bouma, Finke, Hoosbeek & Breeuwsma, 1998). Participants providing responses that are considered desirable or in line with social norms is a weakness of the quantitative descriptive survey (Creswell, 2008). In addressing this problem, participants were not required to provide their names on the instrument.

The questionnaire was used because research participants were literate and could thus read and write (Koul, 2001). To develop the instrument, relevant literature was reviewed and seven items were adapted from Abisai (2014) "Assets and Modes of sports talent identification and development" questionnaire to suit the purpose of this study. The variables as well as corresponding items in the instrument are presented in Table 2.

Table 2. Questionnaire variable and items

Variables	Items
Modes	1 &2
Challenges	3-7

A copy of the instrument was sent to thirty post-graduate students to ensure it was easy to understand when read for face validity. A copy was sent to four doctors in sports management from the Department of Health, Physical Education and Recreation (HPER) of the Cape Coast University (UCC) to make sure that it could execute the work for which it was designed, this ensured content validity after which the opinions of colleagues and the expert were employed in revising the instrument as needed.

The investigator and research assistants administered copies of the instrument to a randomly chosen smaller sample of coaches at the tertiary level in the UER after which the stability of the instrument's items was ascertained with Cronbach's Coefficient Alpha. The instrument's reliability coefficient stood at .84. The instrument was further revised as needed and finalized.

The questionnaire was segregated into two parts. Section A consisted of two items on how sports talents are identified with two categorical responses anchored 1 (agree) and 2 (disagree). Item sample included "Talented student-athletes are selected through observation by a coach during competitions" and "Talented student-athletes are selected through measurement and testing of

attributes that affect overall performance in a particular sport". Section B had five items and entailed challenges that face the identification of sports talent utilizing a 2-point scale anchored 1 (agree) and 2 (disagree). Item samples included "Access to financial resources restricts the identification of talented-student athletes" "Believing too rigidly that talent is innate hinders the identification of talented student-athletes" "Early talent identification hinders the identification of talented student-athletes", "Believing too rigidly that talent is developed hinders the identification of talented student-athletes", and "Judging coaches' expertise by their teams' performance in essential tournaments is a challenge to the identification of talented student–athletes". The research instrument was written in English.

2.3. Procedure

Data were collected at the various schools by the investigator and research assistants. As compliance to covid-19 protocol measures the investigator and research assistants wore face masks and each participant was provided with one before any interaction. The investigator and research assistants carried along hand sanitizers which were used by the investigator, research assistants, and participants before and after touching any writing material or object during data collection. Again, a distance of at least 2 meters was maintained between the investigator, research assistants and participants. Data collection took place at the various schools with help from three trained research assistants (RAs) from 7th -30th September, 2021. RAs were trained on the purpose of the study, entry protocols into the various schools and how to administer the consent form. The RAs shared the questionnaire to the participants face-to-face at the various facilities. Inform consent forms were made available to the participants. The participants were made aware that participating in the study was optional. Participants who filled their questionnaire on time were retrieved on the spot, but those who seem busy were collected after a week. Before data collection began, the purpose of study was explained to the participants. Coaches were assured of confidentiality and anonymity. Before data collection began, all coaches were required to sign consent forms. Data were collected by the researcher and his assistants within a period of twenty-three days.

2.4. Statistical Analysis

The data were analysed using a quantitative data analysis software package (i.e., SPSS 21.0 for Windows) and are reported using descriptive statistics such as frequencies and percentages.

3. RESULTS

3.1. Modes of sports talent identification

Two items were used to find out how talented student-athletes were identified in SHSs in UER. These statements were answered using items 1 and 2 on the questionnaire under section A. Frequencies and percentages were conducted to determine the mode by which coaches identify talented student-athletes in SHSs in UER. Each of these items was coded as Agree = 1, and Disagree = 2. All 203 participants responded to all the items. Their responses are indicated in Table 3.

Table 3. Modes of Identifying Talented Student Athletes in Senior High School

Items	Agree	%	Disagree	%	Total	% of Total
Talented student-athletes are selected through observation by coaches during competition	184	90.6	19	9.4	203	100
Talented student-athletes are selected through measurement and testing of attributes that affect overall performance in a particular sport.	28	13.8	175	86.2	203	100

Source: Field Survey (2021)

In Table 3, 184 (90.6%) of the participants agreed that talented student-athletes were identified through observation by coaches during competitions while 19 (9.4%) disagreed. Additionally, 28 (13.8%) of the participants agreed that talented student-athletes were identified through testing and measuring of attributes that affect overall performance in a particular sport while 175 (86.2%) disagreed.

3.2. Challenges faced in the identification of sports talents in Senior High Schools

Five items were used to find out challenges faced by coaches in identifying talented student-athletes in SHSs in UER. These statements were answered using items 3-7 on the questionnaire under section B. Frequencies and percentages was calculated to determine the challenges faced by coaches in identifying student-athletes in SHSs in UER. Each of these items was coded as Agree = 1, and

Disagree = 2. All 203 participants responded to all the items. Their responses are indicated in Table 4.

Table 4. Challenges in Identifying Talented Student Athletes in Senior High School

Items	Agree	%	Disagree	%	Total	% of Total
Limited financial resources	167	82.3	36	17.7	203	100
Too rigid believe that talent is innate	38	18.7	165	81.3	203	100
Judging coaches expertise by their team's performance	150	73.9	53	26.1	203	100
Early talent identification	140	69.0	63	31.0	203	100
Too rigid believe that talent is developed	45	22.2	158	77.8	203	100

Source: Field Survey (2021)

Table 4 clearly shows that most of the participants indicated that limited financial resource (82.3%) was a challenge in identifying talented student athletes. This was followed by judging coaches' expertise by their team's performance in essential competitions (73.9%), then early talent identification of talented-student athletes (69%). However, majority of the participants indicated that too rigid belief that talent is innate (81.3%) was not a challenge in identifying talented student-athletes, this was followed by proportions of participants who indicated that too rigid belief that talent is develop was not a challenge in identifying talented student-athlete (77.8%).

4. DISCUSSION

The investigation was conducted with the aim of identifying modes and challenges in sports talent identification. The results of the study indicate that the identification of talented student-athletes in SHS in the UER is mainly based on observation by the coach during competitions. This may be done during intramural competitions such as inter-class, inter-department, and inter-house competition or during extramural sports competitions such as inter-schools and zonal competitions.

The probable reason for employing natural selection in identifying sports talents in SHSs in UER may be because there are few coaches and many athletes in these schools. This finding suggests that the mode of identifying talented student-athletes in the UER is similar to that of China, the United States of America, India (Krasilshchikov, 2010), and the National Governing Bodies of Sports (NGBs) (Sarmento, Anguera, Pereira & Araujo, 2018) since the principal approach employed by them in identifying sports talent was Natural selection. The findings in this study are in line with that of Christensen (2009) who found out that identifying sports talents heavily relies on subjective assessment based on the coach's "eye for talent" and William & Reilly (2006) who found out that coaches rely on their experience through sports to identify sports talents.

Additionally, the results of this study indicate that the scientific method of measuring and testing physical, physiological, psychological, and social attributes as well as technical was a less used mode of identifying sports talents in SHSs in UER. This means that SHSs in the UER are yet to embrace the use of scientific methods which involves testing attributes associated with success in a particular sport. The probable reason may be that SHSs in UER are not equipped with instruments that coaches can use to measure the physiological attributes of an athlete. It may also be because there are few coaches in the SHSs as against a large number of students in the schools. Therefore, measuring and testing physical, physiological, psychological, and social attributes from a large number of individuals by a coach was time-consuming and tiring. This finding is consistent with Bailey & Collins (2013) who found out that globally, talent identification programs are not firmly grounded on scientific rationale. The practical implication of this finding is that a student would have to be a participant for his/her sports talent to be recognized by a coach, the sports talent of students who do not compete are overlooked.

The current investigation again revealed that identifying student-athletes who are exceptional was hindered by lack of finance in SHSs in the UER. The probable reason may be that parents with limited financial resources were not able to purchase basic sport equipment such as boots, jerseys and running shoes for their wards to use hence some students had potential to be great sports performers but coaches could not recognize these potentials since such students did not participate at all or participated using improper attires. Previous investigations in this field stressed the consistency of economic limitations to participation in high-performance sports (Bailey & Collins, 2013). This observation agrees with earlier observations from investigations made by Canadian (2013) which concluded that whilst 58% of Canadian students from households that earn over $40,000 take part in Sport, 85% of Canadian students from households that earn over $80,000 take part in sport.

Practically, the findings implied that student-athletes at the SHS level in UER do not get financial support from significant others to enable them participate or perform well in sports.

The results of this study also suggested that judging coach's expertise by their team's performance in essential competitions is a challenge in identifying talented student-athletes at the SHS level in UER. Sports talent identification is a long-term process and one of the challenges in traditional athlete talent identification systems is the difficulty balancing short and long-term goals. Previous research acknowledges that this conflicting reality plays itself out in several other sports at the high school level and the collegiate level in the United States (Lund & Soderstom, 2017). In such systems, coaches maintain their reputation based on their team's temporary success: their win-loss report or how their team does in an essential tournament (Barreiros et al., 2014; Barreiros & Fonseca, 2012). Practically, the findings imply that during this process, trainers at the SHS level in UER are no longer choosing based totally on talent, nor attainable talent. They are selecting based totally on performance, and who will function best in a relatively brief timeframe. Again, the study found out that early talent identification was a challenge in identifying talented student-athletes at the SHS level in UER. The probable reason may be that early talent identification suggests that talent is a fixed capacity and does not change over developmental time (Bergkamp et al, 2019). Basically, the proof in sports supporting early symptoms of talent is susceptible (Barreiros & Fonseca, 2012; Brouwers et al., 2012). O'Connor et al. (2018) proposed a more legitimate clarification of talent as a multi-faced quality that reflects the relative contribution of physical, physiological, cognitive, and dispositional features that facilitate or hinder the acquisition of knowledge in a domain. He emphasized that these qualities emerge at different rates for different individuals throughout their development, thus emphasizing the difficulty of early talent identification of these qualities. Similar discussions concerning early talent identification as a challenge in identifying talented performers have occurred in sports (Abbott et al., 2005; David et al., 2013). Practically, this finding implies that coaches at the SHS level in UER find it difficult identifying talented student athletes early since later developments may differ from current observations.

However, the study found out that coaches' belief about whether talent is innate or developed is not a challenge to identifying talented student-athletes at the SHS level in UER. The plausible reason may be that coaches at the SHS level in UER rely heavily on their eyes to make judgement about sports talent. Therefore, too stringent belief that talent is either innate or developable, has no significant implication for the prediction choices made by coaches. When a coach decides who has the potential for future development, they are ultimately predicting a range of future sports outcomes.

Findings in this study contradicts research findings of Grossmann & Lames (2015) which found out that too stringent belief that talent is either innate or developable is related to diminished accuracy in talent identification.

5. CONCLUSIONS

The findings from this work showed that most coaches employ the natural selection method in identifying sports talents, therefore, many sports talents in Senior High Schools in Upper East Region are over looked because they are not currently participating in the sports. Adequate financial resources are not allocated for sports talent identification in SHSs in the UER and much focus is placed on winning SHS competitions to the detriment of recognizing the potential for future success in sports performance among student-athletes.

6. RECOMMENDATIONS

Coaches in Senior High Schools in the Upper East Region should include scientific methods of measuring physical, physiological and social attributes of student-athletes in identifying athletes with potential of becoming elite performers. The Director of Education Service and Heads of Senior High Schools in Upper East Region should allocate adequate financial resources to sports development so that a sufficient portion can be used by coaches to enhance sports talent identification. Again, Senior High Schools in Upper East Region should focus more on identifying and developing sports talents rather than winning Senior High School sports competitions.

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AUTHOR CONTRIBUTIONS

CONFLICTS OF INTEREST

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