Talented High School Football Players' Perception of Talent Identification Criteria

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ABSTRACT

Talent identification (TID) is a major part of top-level football. Even so, most studies of talented players are skewed towards exploring the work of coaches who are already dealing with pre-defined "talented performers" and not a broader range of players, such as high school students in sport specialisation programs (SSP) and elite sport specialisation programs (ESSP). In this study, we explore which skills high school players find most important, how they assess their own skills compared to their schoolmates and which skills their school and club coaches find most important, comparing: girls and boys, an SSP and an ESSP school and players playing top-level versus low-level football. Included in this study were 111 high school football players (81 boys and 30 girls) representing one SSP and one ESSP. The results showed that the players ranked mental and tactical skills as most important. Girls considered both tactical and physical skills significantly (<0.01) more important than boys. Players from SSP considered mental skills as significantly more important, while the ESSP players considered the tactical skills as significantly more important. Furthermore, the top-level players considered technical and playing level could affect the players' perception of the most important skills in TID.

Key words: Talent identification, High school, Gender, Playing level

Introduction

Talent identification (TID) is a major part of top-level football. Simply put, the process of identifying participants with the potential to excel in a given domain is talent identification (Williams & Reilly, 2000). A large proportion of studies have tried to identify indicators of talent at an early stage by using different test batteries (Höner & Feichtinger, 2016; Williams & Reilly, 2000). Through the use of psychological, physiological, technical or tactical skills (Forsman, Blomqvist, Davids, Liukkonen, & Konttinen, 2016; Höner & Feichtinger, 2016; O'Connor, Larkin, & Williams, 2016), many have tried to identify TID criteria with alternating luck. The lack of consistency of "objective" means for the execution of talent identification has made authors claim that this process is fundamentally flawed (Vaeyens, Lenoir, Williams, & Philippaerts, 2008; Williams & Reilly, 2000) or potentially an ineffective process (Abbott & Collins, 2004; Vaeyens et al., 2008).

Even though quite a few researchers have focused on the talent identification process, few have paid attention to the criteria the coaches use to identify the soccer talents (Pankhurst & Collins, 2013), with a few exceptions. By adopting Bourdieu's concept of practical sense, Christensen (2009) found that coaches used classificatory schemes to characterize their preferred so-called "autotelic" players, that is, players that, from the coaches' perspective, exhibit a potential to learn, practice and improve. In this process, these coaches largely focused on specific skills and the importance of attitudes and described game intelligence as a vital factor in identifying talented soccer players. A review study on Norwegian football coaches concluded that the coaches had clear views of how to identify the

most talented players, even though the coaches demonstrate difficulties in defining which criteria they regarded as most important, since they reported technical, tactical, psychological, physical and social factors as equally important (Sæther, 2014).

An obvious explanation for the coaches faltering use of identification criteria is the lack of common understanding of the term talent. Miller, Cronin and Baker (2015), for example, found that coaches of youth-elite football players regarded talent as highly trainable, not a static phenomenon and less innate. Others have pointed to the fact that the distinction between talent identification and talent development (TD) also could be described as less clear, since most coaches would rely upon observed skills and not the players' potential. Knowing that clubs often begin scouting players as young as nine to eleven years old with a view of identifying their largely underdeveloped "potential" (Ford, Le Gall, Carling, & Williams, 2008), the likelihood of seeing the potential is low, since the observed skills often are the only criteria.

As a part of youth football players' development, the ability to assess their own development and their abilities compared to their teammates could be essential (Kannekens, Elferink-Gemser, Post, & Visscher, 2009). Most players, however, often use their coaches as benchmarks for how they are progressing as footballers, indicating a strong relationship between the players' playing time and their assessment of their own skills (Sæther, Aspvik, & Høigaard, Submitted). Which skills and abilities they choose to develop could potentially affect the opportunity of becoming a professional football player. An earlier study found that girls focused more on basic skills and had a more dynamic understanding of their own talent, while boys focused more on the development of specific skills and had a more static definition of their own talent (Sæther & Mehus, 2016).

High school has been found to be an important breaking point in many junior players' careers. As the transition from junior to senior sport is a key point in young practitioners' careers, this transition is often described as challenging, as it also coincides with important changes in life in general (Enoksen, 2002; Stambulova, 2009). One knows that poor coordination between sport and education is among the most common reasons for dropping out of sports (Enoksen, 2002). It can also cause problems, stress and inner conflicts in the individual athlete (Christensen & Sørensen, 2009). Still, others have pointed out that education and the sports arena have conflicting demands and, thus, stand in a competitive relationship above athletes who want to be the best (Bourke, 2003; McGillivray & McIntosh, 2006). There are also, however, studies indicating that both football elite academy players and coaches de-value the importance of school in the TD process (Morley, Morgan, McKenna, & Nicholls, 2014). Naturally, most studies of talented players are skewed towards exploring the work of coaches who are already dealing with pre-defined "talented performers" and thereby focusing solely on pure "talent development" (Baker & Schorer, 2010; Christensen, 2009).

The aims of this study were: (1) investigate which skills high school players find most important to develop in their age-group (16 to 19 year olds) and how they assess their own skills compared to their schoolmates; (2) investigate the students' perception of the skills on which their school and club coaches focus in their TD process, and (3) to compare the players' perception of skill equation, comparing: girls and boys, the two schools and players playing in top-level versus low-level football.

Methods

Participants

The participants included 30 girls and 81 boys representing two Norwegian high schools offering an sport specialization programs (SSP) or elite sport specialization programs (ESSP). Players from School 1 represented an ordinary SSP, while players from School 2 represented an ESSP. The players had a mean age of 17.47 years (SD 0.77) and were born between 1997 and 1999.

Measures

Player self-assessment of skills. The questions used for selfassessed skills asked the players to evaluate their own skills compared to their teammates on the following: *technical*, *tactical*, *mental*, *social* and *physical* skills, on a 5-point Likert scale, ranging from: better than most on my team (1) to worse than most on my team (5).

Skill expectations. The questions assessed the players' assessment of the importance of different skills as 16- to 19-yearold football players, according to the following: *Technical, tactical, mental, social* and *physical* skills, on a 5-point Likert scale, ranging from: *very important* (1) to *not important* (5).

School coach skills focus. The questions used to assess the school coaches' skills focus asked the players how much the school coach focused on the following: Technical, tactical, mental, social and physical skills, on a 5-point Likert scale, ranging from: very important (1) to not important (5).

Club coach skills focus. The questions used to assess the club coaches' skills focus asked the players *how much the school coach focused on the following: Technical, tactical, mental, social* and *physical* skills, on a 5-point Likert scale, ranging from: *very important* (1) to *not important* (5).

Procedures

The data were collected using a questionnaire among students from two high schools. Before answering the questionnaire, all participants were informed about the purpose of the study, that their participation was voluntary, that the survey was anonymous and that all information would be treated confidentially. The variable *Top-level* was characterised as playing at the two highest senior levels, while *Low-level* was characterised as below level 2, both among girls and boys. The study (ethics clearance) was in accordance with and approved by the Norwegian Social Science Data Services.

Statistical Analysis

All analyses were conducted using SPSS version 22.0. Means and standard deviations were calculated for player self-assessed skills, their expectations of skills to be developed and the club and school coaches' focus on talent identification criteria. The independent T-test was used to identify the differences between girls and boys, the players from two schools and the players playing at top-level versus those players at lower level. The significance level (alpha) was set to 0.05.

Results

The girls considered both tactical and physical skills to be significantly more important (<0.01) and technical skills to be

Table 1. Descriptive data and independent t-test on the players' self-assessment of skills, assessment of expected skills as a football							
player, and on which skills they feel the school and club coaches focus, according to gender							

		The players		The coaches	
		Self-assessment	Expectations	School	Club
Technical skills	Boys	$2.20 \pm .97$	$1.55 \pm .67$	$1.40 \pm .61$	$1.90 \pm .71$
	Girls	$2.26 \pm .90$	$1.33 \pm .60$	$1.50 \pm .57$	$1.63 \pm .55$
	Total	$2.22 \pm .95$	$1.49 \pm .66$	$1.42 \pm .60$	$1.83 \pm .68$
Tactics skills	Boys	$2.12 \pm .87$	$1.42* \pm .61$	$2.19 \pm .87$	1.77 ± 2.3
	Girls	$2.36 \pm .80$	$1.16 \pm .37$	$2.33 \pm .95$	$1.56 \pm .67$
	Total	$2.18 \pm .85$	$1.35 \pm .56$	$2.23 \pm .89$	1.71 ± 2.0
Mental skills	Boys	$2.07 \pm .87$	$1.37 \pm .55$	$2.54 \pm .69$	$2.32 \pm .75$
	Girls	$2.43 \pm .77$	$1.27 \pm .59$	$2.43 \pm .81$	$2.36 \pm .85$
	Total	$2.17 \pm .86$	$1.34 \pm .56$	$2.51 \pm .73$	$2.33 \pm .77$
Social skills	Boys	$2.25 \pm .89$	$2.46 \pm .80$	$2.36 \pm .68$	$2.48 \pm .68$
	Girls	$2.30 \pm .79$	2.46 ± 1.3	$2.63 \pm .85$	$2.10 \pm .88$
	Total	$2.27 \pm .86$	$2.46 \pm .96$	$2.43 \pm .74$	$2.37 \pm .75$
Physical skills	Boys	2.34 ± 1.0	$1.90^{*} \pm .82$	$2.00 \pm .65$	$2.16 \pm .63$
	Girls	$2.51 \pm .94$	$1.30 \pm .46$	$1.83 \pm .64$	$1.96 \pm .76$
	Total	2.39 ± 1.0	$1.73 \pm .78$	$1.95 \pm .65$	$2.11 \pm .67$

close too significantly (<0.078) more important than boys did. Furthermore, no significant differences were ever found regarding their club-coach and school-coach skill focus (Table 1). Even so, comparing the players and the school and club coach, the players ranked mental and tactical skills as most important, while the school coach and club coach ranked, respectively, technical and physical, and tactical and technical. On the opposite end of the scale, the players ranked physical and social skills as least important, while the school coach and club coach both ranked, respectively, social and mental as the least important. The study found no significant differences between boys and girls in terms of assessment of their own skills. Comparing the two schools' types and their evaluation of which skills the club and school coaches highlight in the TD process, the players from the SSP school considered the school coach to focus significantly (<0.01) more on technical skills than the club coach (Table 2). The players from ESSP, however, considered the club coach to focus on technical skills as compared to the school coach. Furthermore, the players from ESSP regarded the club coach to be significantly (<0.01) more focused on physical skills as compared to the players from SSP. No differences were found between the two schools in terms of the players' self-assessment, with the exception of the physical skills, which were regarded as significantly (<0.01) more important in SSP as compared to ESSP.

 Table 2. Descriptive data and independent t-test on the players' self-assessment of skills, assessment of expected skills as a football player, and on which skills they feel the school and club coaches focus, according to school

		The players		The coaches	
		Self-assessment	Expectations	School	Club
Technical skills	School 1	$2.18 \pm .98$	$1.57 \pm .68$	$1.29* \pm .46$	$2.03* \pm .66$
	School 2	$2.26 \pm .92$	$1.41 \pm .62$	$1.55 \pm .68$	$1.63 \pm .64$
	Total	$2.22 \pm .95$	$1.49 \pm .66$	$1.42 \pm .60$	$1.83 \pm .68$
Tactics skills	School 1	$2.09 \pm .86$	$1.44* \pm .60$	$2.58 \pm .75$	$1.56 \pm .57$
	School 2	$2.28 \pm .84$	$1.26 \pm .52$	$1.91 \pm .90$	1.85 ± 2.8
	Total	$2.18 \pm .85$	$1.35 \pm .56$	$2.23 \pm .89$	1.71 ± 2.0
Mental skills	School 1	$2.21 \pm .91$	$1.29* \pm 50$	$2.78 \pm .67$	$2.41 \pm .77$
	School 2	$2.12 \pm .81$	$1.40 \pm .62$	$2.26 \pm .70$	$2.62 \pm .77$
	Total	$2.17 \pm .86$	$1.34 \pm .56$	$2.51 \pm .73$	$2.33 \pm .77$
Social skills	School 1	$2.18 \pm .86$	2.56 ± 1.0	$2.43 \pm .80$	$2.21 \pm .80$
	School 2	$2.35 \pm .86$	$2.36 \pm .86$	$2.44 \pm .68$	$2.51 \pm .68$
	Total	$2.27 \pm .86$	$2.46 \pm .96$	$2.43 \pm .74$	$2.37 \pm .75$
Physical skills	School 1	$2.23^{*} \pm .90$	$1.66 \pm .70$	$2.16 \pm .65$	$2.29* \pm .72$
	School 2	2.54 ± 1.1	$1.80 \pm .86$	$1.76 \pm .60$	$1.94 \pm .58$
	Total	$2.39 \pm .1.0$	$1.73 \pm .78$	$1.95 \pm .65$	$2.11 \pm .67$

Comparing the players who played at the two highest senior levels to those who played at lower levels showed that the toplevel players considered their own skills as significantly (<0.01) better regarding both technical and tactical skills (Table 3). They also considered technical and mental skills as significantly (<0.01) more important. No differences were found between the top- and low-level players in terms of the skills on which the school and club coaches focused in the TD process, with the exception of mental skills, which were considered as significantly (<0.01) more important by the top-level players.

 Table 3. Descriptive data and independent t-test on the players' self-assessment of skills, assessment of expected skills as a football player, and on which skills they feel the school and club coaches focus, according to playing level

		The players		The coaches	
		Self-assessment	Expectations	School	Club
Technical skills	Top-level	$1.97* \pm .83$	$1.27* \pm .50$	$1.40 \pm .55$	$1.54 \pm .64$
	Low-level	$2.35 \pm .98$	$1.60 \pm .70$	$1.44 \pm .62$	$1.98 \pm .65$
	Total	$2.22 \pm .95$	$1.49 \pm .66$	$1.42 \pm .60$	$1.83 \pm .68$
Tactics skills	Top-level	$2.08* \pm .72$	$1.37 \pm .54$	$2.24 \pm .98$	$1.54 \pm .60$
	Low-level	$2.24 \pm .91$	$1.34 \pm .58$	$1.22 \pm .85$	1.81 ± 2.5
	Total	$2.18 \pm .85$	$1.35 \pm .56$	$2.23 \pm .89$	1.71 ± 2.0
Mental skills	Top-level	$2.10 \pm .80$	$1.22* \pm .48$	$2.45 \pm .73$	$2.29* \pm .66$
	Low-level	$2.20 \pm .89$	$1.41 \pm .59$	$2.54 \pm .73$	$2.35 \pm .83$
	Total	$2.17 \pm .86$	$1.34 \pm .56$	$2.51 \pm .73$	$2.33 \pm .77$
Social skills	Top-level	$2.21 \pm .78$	$2.29 \pm .77$	$2.37 \pm .68$	$2.56 \pm .72$
	Low-level	$2.29 \pm .90$	2.54 ± 1.0	$2.47 \pm .77$	$2.27 \pm .75$
	Total	$2.27 \pm .86$	$2.46 \pm .96$	$2.43 \pm .74$	$2.37 \pm .75$
Physical skills	Top-level	2.58 ± 1.1	$1.78 \pm .85$	$1.89 \pm .69$	$1.97 \pm .68$
	Low-level	$2.29 \pm .97$	$1.71 \pm .75$	$1.98 \pm .62$	$2.18 \pm .66$
	Total	2.39 ± 1.0	$1.73 \pm .78$	$1.95 \pm .65$	$2.11 \pm .67$

Discussion

Even though quite a few researchers have focused on the TID process, few have paid attention to the criteria the coaches

use (Pankhurst & Collins, 2013). One obvious reason could be the lack of consistency of "objective" means for the execution of TID, which could indicate that it simply is an ineffective process (Abbott & Collins, 2004; Vaeyens et al., 2008) or is fundamentally flawed (Vaeyens et al., 2008; Williams & Reilly, 2000), highlighting the high degree of subjectivity in this process (Christensen, 2009; Sæther, 2014).

The transition from junior to senior sport could be especially challenging, since education and the sports arena have conflicting demands and, thus, stand in a competitive relationship above athletes who want to be the best (Bourke, 2003; Christensen & Sørensen, 2009; Enoksen, 2002; McGillivray & McIntosh, 2006; Stambulova, 2009). The results show differences between the coaches' and players' rankings of the most important skills in the TID process, where the players considered mental skills as most important, while the coaches considered this as one of the least important. This result could be problematic for these players' TD process, since conflicting messages from different coaches representing the club and the school could potentially create a dilemma for the players (Stambulova, 2009). In light of the study of Christensen (Christensen, 2009) and the preferred so-called "autotelic" players, one could expect the coaches to be more able to see behind the players skills, potentially identifying the players potential to learn. Others have, however, questioned the coaches' ability to see this potential and mostly focus on the present skills (Ford et al., 2008). Interestingly, no significant gender differences were found regarding their club-coach and school-coach skill focus in the TD process.

Results from this study showed that girls considered both tactical and physical skills to be significantly more important than boys, while technical skills also were considered close to significantly more important. These results would indicate that one could expect gender differences regarding identification criteria. Even though there are few studies investigating gender differences, Sæther and Mehus (Sæther & Mehus, 2016) found talented girls to focus more on basic skills, as compared to boys who focused more on the development of specific skills. Surprisingly, in light of these results, the study found no significant differences between boys and girls in terms of assessment of their own skills, in relationship to these criteria. Even so, it might be that the girls have a stricter consideration of the identification criteria or a more realistic assessment of their own skills.

The relationship between football clubs and schools has been highlighted as important in the TD process, especially since the collaboration could be both conflicting and problematic. The results indicate that both players from SSP and ESSP have similar expectations, in terms of the criteria in the TID process. However, the players from SSP considered tactical skills to be significantly less important, as compared to the ESSP players, while the ESSP players considered mental skills to be significantly more important. Obviously, these two skills could be seen as related, but one could also argue that tactical skills are much more specific than mental skills, which cover a larger range of skills. The English Football Association (FA) uses, for instance, a "four-corner" model of player development: i.e., *Technical, Physical, Psychological* and *Social* (Simmons, 2004). This would indicate that they include the

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tactical dimension in the psychological. While tactical skills are directly related to choices on the pitch, mental skills are also closely related to the pitch activity but also to mental abilities outside the pitch, i.e., overcoming injuries, burnout and mental toughness. This could be an argument for also including tactical as separate skills in both the TID and TD process.

Comparing the two schools' players and their evaluation of which skills the club and school coaches highlight in the TD process, revealed some potentially conflicting results (Bourke, 2003; McGillivray & McIntosh, 2006), since SSP coaches focused more on technical skills as compared to club coaches, while the club coaches focused more on technical skills as compared to ESSP coaches. Another potential interpretation of these results could be that the training sessions conducted by both the club coach and the school coach have different focuses, reflecting the coaches' roles. It should be noted that these coaches did not differ in terms of highlighting tactical, social and mental skills, while the players from ESSP regarded the club coach to be more focused on physical skills as compared to the players from SSP. The results could indicate that the players consider their skills to be similar in the two schools, since, with the exception of the physical skills, the results showed no differences between the two schools in terms of the players' self-assessment. Since there are indicators for a strong relationship between the players' playing time and their assessment of their own skills (Sæther et al., Submitted), one could expect that the players' self-assessment is related to the coaches' assessments.

The level of the players could be described as an essential factor in young, talented players' assessment of their own skills (Höner & Feichtinger, 2016). The results showed that top-level players considered technical and mental skills as significantly more important than the low-level players. These results are in line with what top-level coaches have highlighted as important in their talent identification process (Sæther, 2014). This could indicate that the players and coaches at the highest level agree on the heightened importance of these two skills. No differences were found between the top- and low-level players in terms of the TID criteria or the skills on which the school and club coaches focus, with the exception of mental skills, which were considered significantly more important by the top-level players. More naturally, the top-level players regarded their own skills as significantly better on both technical and tactical skills. Earlier studies have pointed to the fact that youth-level players are dependent on assessing their own playing skills (Kannekens et al., 2009).

This study has obvious limitations. Unfortunately, there was a skewness regarding the number of girls and boys, where only 30 of the respondents were girls. One could potentially expect somewhat other results if the respondents were more equal in numbers. Even so, the study compared girls and boys on all variables, excluding the potential of gender effect in the study. Furthermore, the study only includes two schools, even if the number of subjects was satisfactory at 111 players.

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