



From childhood to senior professional football: A multi-level approach to elite youth football players' engagement in football-specific activities



Mathias Haugaasen*, Tynke Toering, Geir Jordet

Department of Coaching and Psychology, Norwegian School of Sport Sciences, Pb. 4014, Ullevaal Stadion, 0806 Oslo, Norway

ARTICLE INFO

Article history:

Received 14 May 2013

Received in revised form

9 December 2013

Accepted 12 February 2014

Available online 4 March 2014

Keywords:

Soccer

Expertise

Practice quality

Development

Skill acquisition

ABSTRACT

Objectives: The main aim of this study was to identify the development of engagement in football-specific activities of elite youth association football (soccer) players who have made the transition to senior professional status or not.

Design: Comparative research design.

Method: Data were collected from all elite youth players ($N = 745$) within the age-range of 14–21 years from all Norwegian Premier League clubs, using a retrospective questionnaire. A within elite-group comparison of players who had obtained a senior professional contract or not was conducted by using multi-level modeling ($n = 491$).

Results: The results showed that although the professional players reported to have accumulated more overall practice hours than non-professionals from ages 6 to 19 years, none of these differences were significant. The professional players reported to have accumulated significantly more hours in play and coach-led practice at the youngest age categories. No significant differences were identified at older age categories or for other types of football-specific practice at any age.

Conclusions: Differences in performance attainment may be due to variation in the amount and types of football practice at the earliest years of participation, but may also be related to other factors than the number of hours spent in certain football-specific activities. We argue that implementation of multi-level modeling represents an important progression within practice history research, and is necessary to account for the actual individual's development over time in addition to identify how different variables may affect the developmental process.

© 2014 Elsevier Ltd. All rights reserved.

Association football is one of the world's most popular sports, and also represents one of the most competitive and complex sports for reaching expertise (Aguilar, Botelho, Lago, Macas, & Sampaio, 2012). Consequently, football has been an area of interest for many researchers over the last decades who have tried to identify factors that could determine why some players manage to reach senior professional status (for a review, see Haugaasen & Jordet, 2012). One of the main disciplines within this field of research has focused on the relationship between engagement history and expert attainment, where players' activity engagement during childhood and adolescence has been viewed as one key factor in developing expertise (e.g., Ford et al., 2012). From a broader perspective, the positive relationship between the amount of time spent in practice and level of achievement represents one of

the most robust relationships in behavioral research (e.g., Baker, Cobley, & Fraser-Thomas, 2009). As a consequence, expertise has often been viewed as a logical progression of practice accumulation. One of the most influential theoretical frameworks linking practice engagement with expertise development was first introduced by Ericsson and Smith (1991) as the *expert performance approach*, and later specified through *the theory of deliberate practice* (Ericsson, Krampe, & Tesch-Roemer, 1993). The framework “predicts a monotonic relation between the current level of performance and the accumulated amount of deliberate practice for individuals attaining expert performance” (Ericsson et al., 1993, p. 387). Developing expertise is therefore not necessarily a result of the quantity itself but also of the quality of an individual's participation, emphasized through the term *deliberate practice*.

The theory of deliberate practice has recently been criticized for failing to consider several factors that may affect the developmental process, such as age effects, sociocultural context, genetic predispositions, and activity characteristics (for reviews, see Tucker

* Corresponding author. Tel.: +47 90 58 91 88/23 26 24 37.

E-mail address: mathias.haugaasen@nih.no (M. Haugaasen).

& Collins, 2012; Seifert, Button, & Davids, 2013). Criticism within practice history research has emerged mostly from the latter, where findings have suggested that expert performers in sports engage in various sports or play activities from early ages (Baker, Côté, & Abernethy, 2003; Berry, Abernethy, & Côté, 2008; Bloom, 1985). Such results appear contradictory to the domain-specific activities emphasized by the theory of deliberate practice, and one attempt to systematize these findings has been through the Developmental Model of Sport Participation (DMSP; Côté, 1999; Côté, Baker, & Abernethy, 2007; Côté, Horton, MacDonald, & Wilkes, 2009). Within football specifically, however, none of the abovementioned frameworks appear to capture the developmental activities toward elite levels engaged in by youth football players. Three recent studies indicate that such players, from early ages, spend little time in other sports but rather engage in high amounts of football-specific activities which preferably are fun and joyful (Ford, Ward, Hodges, & Williams, 2009; Ford et al., 2012; Ford & Williams, 2012). The *early engagement hypothesis* was proposed by Ford et al. (2009) to explain these findings as opposed to the engagement in domain-specific deliberate practice or multiple sports emphasized through the theory of deliberate practice and the DMSP, respectively.

Previous practice history research in football has provided important insight in the engagement characteristics of young football players. Considering the amount of research available, however, we know surprisingly little about the pragmatic consequences of the developmental process toward senior elite levels. One of the most notable limitations of prior studies has been related to the sample of participants, where either low sample size or the young ages of respondents have provided difficulties to address the transferability of results to elite senior level football (Ford & Williams, 2008, 2012; Ford et al., 2009; Ward, Hodges, Starkes, & Williams, 2007). Second, there has been an apparent lack of overview of how different variables may affect or interact in the developmental process. This was pointed out by Haugaasen and Jordet (2012) in their review on the subject, and later specified by Ford et al. (2012) to include for instance:

(...) the amount of formal, coach-led versus informal, non-coach-led activity and whether the intention of the coach, athlete and significant others during the activity is to win, implicitly or explicitly improve performance, or to have fun and enjoyment" (p. 1654).

Third, the statistical analyses used in practice history studies have focused on comparing group mean differences of either accumulated (e.g., Helsen, Starkes, & Hodges, 1998; Ward et al., 2007) or yearly sums (e.g., Ford et al., 2009; Ford & Williams, 2012) of hours of practice. Analyses of this kind address group differences in the amount of practice throughout chronological age categories, which typically have been interpreted as representing development of activity engagement over time. However, a common misconception is to overlook the fact that two (or more) related scores are not sampled independently of each other, and "failing to deal with this properly in the statistical analysis may lead to erroneous inferences" (Snijders & Bosker, 2012, p. 7). This means that each player's response from one age category to another is not treated in relation to each other but rather as two independent measurements. Consequently, one cannot draw conclusions about the actual individual player's development over time (e.g., Krueger & Tian, 2004).

The main aim of the present study was to provide an overview of the development of engagement in football-specific activities of elite youth players in relation to current performance level (here: professional vs. non-professional players). Some of the

abovementioned challenges from earlier practice history research have been addressed:

- (1) A relatively large sample of players was included ($N = 745$), all of whom were involved in elite youth teams within a Norwegian Premier League (NPL) club.
- (2) Some of these players had already obtained a senior professional contract, which made it possible to conduct within elite-group analyses comparing professional with non-professional players. By using players who have made the transition to senior football but still, by age, were counted within youth levels, we sought to reduce the potential memory inference that would probably be more apparent at older ages (Ward et al., 2007).
- (3) Multi-level modeling was used to analyze the practice engagement data. This procedure was chosen to properly account for each individual player's developmental scores over time, and to estimate the actual effect of variables hypothesized to affect the outcome scores.

Method

Participants

In total, 745 football players aged 14–21 years from elite teams within all clubs participating in the NPL, participated in this study. The data of 27 players were removed due to incomplete responses of all variables, leaving 718 players ($M_{\text{age}} = 16.2$, $SD = 1.8$) available for further analyses (see Table 1 for sample overview). The statistical analyses were divided into three main sections (see chapter on Statistical analyses). For the first section all players in the sample were included. For the two other sections, the players were categorized into two groups based on their current contract status (professional or non-professional). Here, two additional inclusion criteria were applied to filter the sample of players. First, the age at which a player is eligible to sign a senior professional contract is 15 years, and players younger than this at the time of measurement ($n = 153$) were excluded. Second, 22 players were removed due to missing contract status. For the analyses of activity ratings a total of 543 players fulfilled the inclusion criteria, who were divided into one group of 81 professional contracted players ($M_{\text{age}} = 18.7$, $SD = 1.3$) and one group of 462 non-professional players ($M_{\text{age}} = 15.8$, $SD = 1.6$). For the multi-level analyses, an additional 52 players were removed due to failing to report any practice history. A total of 491 players were included

Table 1
Sample distribution by age and contract status.

Age ^a	Overall sample	Contract status	
		Professional players	Non-professional players
13	35		30
14	125		123
15	137		128
16	126	6	119
17	114	8	105
18	99	21	77
19	52	24	27
20	21	15	6
21	7	7	–
Distribution sum	716	81	615
Missing ^b	2	22	
Overall total	718	718	

^a At time of measurement.

^b Missing either age or contract status.

Download English Version:

<https://daneshyari.com/en/article/894390>

Download Persian Version:

<https://daneshyari.com/article/894390>

[Daneshyari.com](https://daneshyari.com)