

Original Article

Differences in coaching feedback between coaches of junior elite soccer players and junior amateur soccer players

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Abstract

The verbal feedback given to junior soccer players potentially heading to a professional career is essential for technical and tactical skill development. The aim of this study is to examine whether differences exist in feedback between coaches of junior elite soccer teams and coaches of junior amateur soccer teams. The coaches of a junior elite soccer team and a junior amateur soccer team in Norway were observed and filmed during eight training sessions. Our measurements of verbal feedback (537 observations) were categorised based on frequency, valence, direction and timing. No differences in the number of feedback sequences or timing of feedback were detected. However, the coaches of junior elite soccer players spent more time providing feedback and gave more individual feedback, and their feedback was more positive, concrete and reflective than that of the coaches of the junior amateur soccer players.

Keywords: Feedback, soccer, junior elite players, junior amateur players

Introduction

Youth soccer players increase their training as their coaches require more of them and as the players require more of themselves (Helsen, Hodges, Van Winckel, & Strakes, 2000). Previous research has pointed to the development and maximisation of players' skills as the main tasks of soccer coaches (K. Gilbert, 2011). Learning and adaptation have also been identified as important aspects of youth player development (J. Hansen & Henriksen, 2009; Ommundsen, 2009). In addition, research has shown that coaches have a strong impact on the technical and tactical skill development of both elite and amateur players (Martindale, Collins, & Daubney, 2005). The cognitive development of youth players in relation to feedback is essential for their development and future performance (Connolly, 1970; Haywood & Getchell, 2008; Piaget, 1952).

The development of technical and tactical skills among young soccer players is of major importance in soccer today (Bailey & Collins, 2013; Ford et al., 2012; Williams & Reilly, 2000). The verbal feedback given to junior players is essential in the development of such technical and tactical skills. Previous research has also shown that the content of the feedback is vital for players' further motivation and development (Cushion, Ford, & Williams, 2012; Ford, Yates, & Williams, 2010; Weiss, Amorose, & Wilko, 2009). Feedback helps promote effective learning (thereby ensuring the correct development of skills) and influences players' motivation to continue training (Williams & Hodges, 2005). Aalberg and Sæther (2016) showed how a professional soccer club invested heavily in coach resources (the number of coaches) in their youth department and thereby provided the players with the opportunity to reflect on their own tactical choices, a process that involved the use of video. Hornsey and Douglas (2012) put forward the argument that feedback is needed to increase performance levels. In a study by Jowett and Carpenter (2015), the coaches themselves pointed to the importance of giving their athletes positive feedback and encouragement and identified a lack of commitment as a behaviour that could lead to diminished relationship quality. In addition, the coaches under investigation in P. Ø. Hansen and Andersen's (2014) study highlighted the importance of objective feedback from coaches.

In another study, the coaches themselves emphasised the importance of stimulating and developing athletes' capacity for reflection. With such a starting point, feedback seems especially important (Hattie, 2012). Feedback has been revealed to be particularly important for learning in school (Hattie, 2013; Zeng, Leung, Liu, & Hipscher, 2009), and it may be argued that the learning process is the same for both students and soccer players. In a recent study, Hattie (2013) showed that the variables with the greatest impact on learning are the factors associated with the teacher, with feedback being central. Hattie (2013) found that of the 138 variables in his meta-analysis, feedback was the 10th most important factor for students' achievement. Furthermore, Hattie (2012) highlighted that an important link exists between the challenges that young people face and the feedback that they receive. Hattie pointed to challenges and feedback as two of the main ingredients of learning. The

importance of feedback was also emphasised in a study by Pellett and Harrison (1996), who found that the performance levels among students with both good and bad skills increased after an intervention period with a great deal of feedback. According to Hattie (2013), visible learning occurs when learning is the clear objective, when it challenges the students (players), when feedback is provided and asked for and when engaged, passionate and active trainers and players participate in the learning process. However, as Hattie (2013) also pointed out – the quality of the feedback may differ substantially among instructors. Cushion et al. (2012) claimed that coaches often stand on the sidelines without being particularly involved.

Several researchers have focused on what is really happening in the area of training in relation to feedback among coaches (Gilbert & Trudel, 2004). Previous observational studies have shown that the use of verbal feedback and instructions in technical exercises, play sessions and tactical exercises is the strategy most used that affects the development of skills (Cushion & Jones, 2001; Ford et al., 2010; Partington & Cushion, 2013; Potrac, Jones, & Cushion, 2007; Wandzilak, Ansorge, & Potter, 1988). Coaches in team sports endeavour to maximise the practice and learning of basic technical and tactical skills by their players and to provide accurate and continuous assessments and feedback in relation to the performance of each player (Holt, Kinchin, & Clarke, 2012). Partington and Cushion (2012, p. 98) found that soccer coaches of youth (9–16 years) elite players at some Premier League Centres of Excellence gave nearly twice as much positive feedback (4.82 percent of the time) as negative feedback (2.57 percent of the time). Murray (2006) found that soccer coaches who rated highest in positive feedback had teams with higher task and social cohesion levels and that successful soccer teams tended to have greater levels of task cohesion. Høigaard, Jones, and Peters (2008) also identified positive feedback as one of the most preferred coach behaviours among professional soccer players, independent of situational conditions. Furthermore, Grouzet, Vallerand, Thill, and Provencher (2004) showed that positive feedback, relative to negative feedback, predicted enhanced perceptions of competence and autonomy. However, according to Hattie (2013), praise for “a good job/good effort” includes little concrete information about what the player is doing right and seldom affects learning positively.

When to give feedback is an important question. Earlier studies have found that coaches give feedback before, during and after training sessions (Potrac et al., 2007). A common strategy among most coaches is to give feedback during training sessions (Cushion et al., 2012; Partington & Cushion, 2012, 2013; Potrac et al., 2007). Based on their finding that coaches gave little feedback after training sessions, Partington and Cushion (2013) suggested that players may be less reflective about their own skills and the improvement of their skills. A recent study by Nerland and Sæther (2016) found that football academy players actually overestimated their own skills compared with those of their teammates.

Previous research has emphasised the importance of comprehensive and concrete feedback, supported with adapted individual training, in the development of young players (Martindale, Collins, & Abraham, 2007; Martindale et al., 2005). In addition, research has shown that individualisation, specific feedback and systematic development are important for the development of each individual player and team (Martindale et al., 2005, 2007); thus, individual feedback seems to be especially vital. Positive and negative feedback may also be of importance. Gökçe (2014) found that performance-approach achievement goals increased and performance-avoidance achievement goals decreased in the positive feedback group, whereas the results were the opposite in the negative feedback group. In addition, Gökçe found that perceptions of mastery motivational climate increased and performance-avoidance motivational climate decreased in the positive feedback group, whereas perceptions of performance-approach achievement goals and performance-approach motivational climate increased in the negative feedback group.

According to Hattie (2012), more knowledge about how to optimise the effects of feedback is needed. As an example, a literature search indicates that there is a lack of knowledge on the differences in feedback between coaches of junior elite soccer teams and those of junior amateur soccer teams. Different strategies may have different types of impact on players' development. The aim of the present study is to examine verbal feedback differences between coaches of a junior elite soccer team and coaches of a junior amateur soccer team. In this study, verbal feedback is restricted to the number of feedback sequences, the timing of the feedback (before, during or after the training sessions), to whom the feedback is directed (individual, group or team) and the feedback valence (positive, neutral or negative in nature). This study also examines the main differences between the verbal communication of the coaches of a junior elite soccer team and that of the coaches of a junior amateur soccer team.

Methods

Design

To study differences in verbal feedback between coaches of junior elite players and coaches of junior amateur players, the coaches of a junior elite soccer team and a junior amateur team were observed and filmed during eight training sessions (four sessions for each team). The verbal feedback given during these training sessions was transcribed and analysed with quantitative and qualitative methods.

Participants

The coaches of a junior elite soccer team (four coaches; 24 players, aged 15–19 years) and the coaches of a junior amateur soccer team (two coaches; 20 players, aged 15–19 years) were selected for this study. Three of

the four coaches of the junior elite soccer team had the Union of European Football Associations (UEFA) Pro Licence qualification or the UEFA A Licence qualification, and one coach had the UEFA B Licence qualification. The ages of these coaches ranged from almost 40 years to almost 50 years. The coaches were not informed of this study's research question.

Both of the coaches of the junior amateur soccer team had the UEFA C Licence qualification. One coach was 20 years old, and the other coach was almost 40 years old. The junior elite soccer team (24 players, aged 15–19 years) belonged to a club with a senior elite team at the highest level in Norway. The junior amateur soccer team belonged to a club with an amateur senior soccer team at the fourth level in Norway. The subjects were fully informed about the protocol before participating in this study, and informed consent was obtained from all subjects prior to all filming. Approval to use the data and conduct the study at the high school was given by the Norwegian Social Science Data Services (NSD).

Procedures

A pilot study, which involved filming one training session for junior amateur players at another club, was conducted to test the experimental design, the equipment and the reliability and validity of the design. The pilot study showed that the verbal feedback given by the coaches whilst being filmed was audible and that it was possible to identify the number of feedback sequences, the timing of the feedback, to whom the feedback was directed and the feedback valence (positive, neutral or negative in nature). An observation diagram was designed after the pilot study. The coaches of the two teams were observed and filmed at four soccer training sessions (90 minutes each) during the same period in the preseason (February/March). For both teams, three of the training sessions were technical and tactical training sessions, and one training session was restitution training. The filming was conducted with a Canon Legria HF R36 camcorder. Following completion of the fieldwork, the film was analysed. In accordance with the observation diagram, all instances of verbal feedback in the film during the eight training sessions and all field notes were quantitatively categorised in relation to the following: the frequency of feedback, the feedback valence (negative, neutral or positive), to whom the feedback was directed (individual, group or team) and, finally, the timing of the feedback (before, during, or after the training session) for both teams. The time spent on each of the 537 observed verbal feedback instances was also included in the observation diagram.

Data analyses of the quantitative and qualitative data

The quantitative data (537 verbal feedback instances from the coaches, 1–14 seconds in duration in general) on the diagram were coded into SPSS. The variables included in the analyses were ordinal with two or three values, and the Pearson chi-square test was used to identify significant associations between feedback from the coaches of the junior elite soccer team and feedback from the coaches of the junior amateur soccer team in relation to the number of feedback sequences, the timing of the feedback (before, during or after the training session), type of feedback (individual feedback: one player, group feedback: two or more players [but not the whole team], team feedback: the whole team) and the feedback valence (negative, neutral or positive). Bonferroni corrections were used in the pairwise comparisons. Independent *t* tests were used to identify differences in the time spent on feedback between the coaches of the junior elite soccer team and the coaches of the junior amateur soccer team. The analysis was carried out with IBM SPSS Statistics 21. The significance level was $p < 0.05$.

The verbal feedback was also analysed based on analysis of meaning, as described by Johannessen, Tufte, and Kristoffersen (2006). In this process, the coaches' statements are given codes that are then classified into categories. The data are sorted based on these categories so as to uncover patterns, similarities, relationships or differences between the statements. In this way, the sorted data are examined to identify meaningful patterns. The statements of the coaches were coded into categories depending on the meaning of the statement (i.e. concrete, reflective), as described by Hastie and Glotova (2012). With such an approach, the study examined not only the quantitative data in relation to the number of feedback sequences but also the quality of what was said.

Results

The results showed that the coaches provided verbal feedback 537 times during the eight training sessions: the coaches of the junior elite players offered verbal feedback 261 times during the four training sessions, and the coaches of the junior amateur players offered verbal feedback 276 times during the four training sessions. The analyses showed that there were no significant differences between the coaches of the junior elite players and the coaches of the junior amateur players in relation to the number of verbal feedback sequences ($\chi^2_1 = 2.0$, $p = 0.157$).

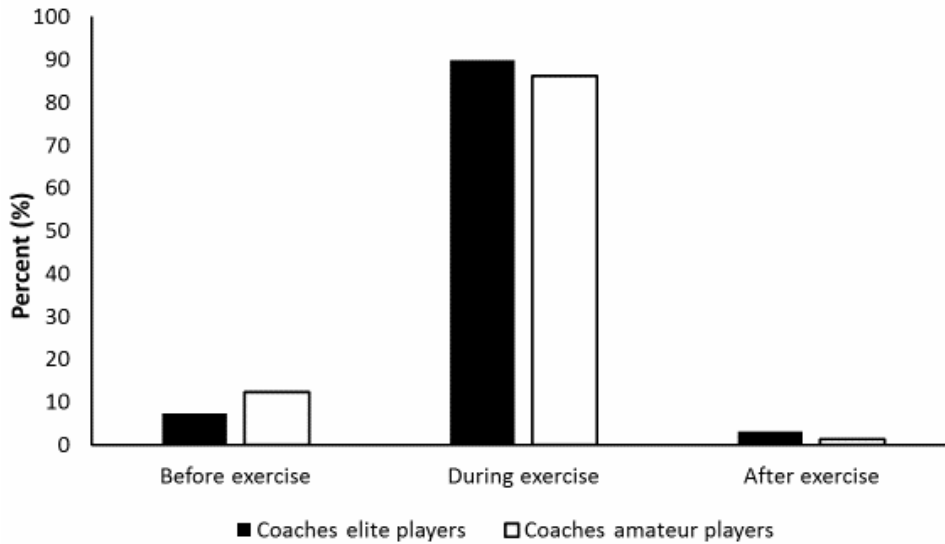


Figure 1: The feedback percentages before, during and after training sessions from the coaches of junior elite soccer players and the coaches of junior amateur soccer players.

The analyses showed that there was no significant association between the coaches of the junior elite players and the coaches of the junior amateur players with regard to when the feedback was given ($\chi^2_2 = 5.1, p = 0.074$). The coaches of both teams gave 90 percent of their feedback during the training sessions and approximately 10 percent before the training sessions. Hardly any feedback was given after the training sessions.

Figure 2 shows the differences between the coaches with regard to their provision of individual feedback, group feedback and team feedback.

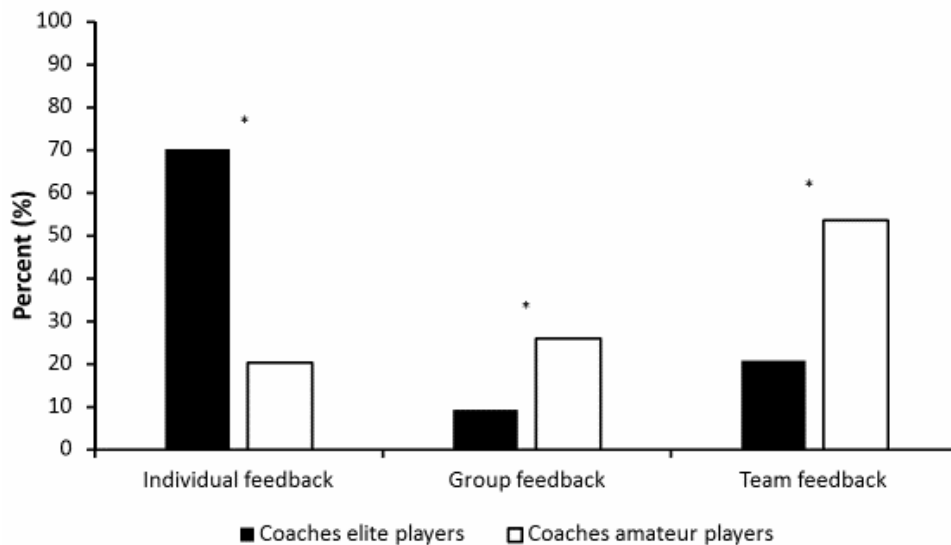


Figure 2: The percentages of instances of individual feedback, group feedback and team feedback from the coaches of junior elite soccer players and the coaches of junior amateur soccer players. * = Significant difference between coaches of junior elite soccer players and coaches of junior amateur soccer players.

Figure 2 shows associations between the type of feedback recipient (individual, group or team) and the coaches of the two teams ($\chi^2_2 = 134.9, p < 0.001$). Whereas 70 percent of the verbal feedback from the coaches of the junior elite players was directed at individual players, only 20 percent (significantly less) of the verbal feedback was directed at individual players, only 20 percent (significantly less) of the verbal feedback from the coaches of the junior amateur players was directed at individual players. The coaches of the junior amateur players gave more than half of their feedback as team feedback (the whole team); by contrast, the coaches of the junior elite players gave significantly less ($\chi^2_1 = 62.0, p < 0.001$) feedback as team feedback (approximately 20 percent). The coaches of the junior amateur players also gave significantly more ($\chi^2_1 = 26.0, p < 0.001$) feedback to groups of players than did the coaches of the junior elite players. Even though

there were differences in the numbers of individual, group and team feedback instances, the time spent on such feedback may not necessarily differ. However, Figure 3 shows that the time spent on individual and team feedback differed between the coaches of the two types of teams.

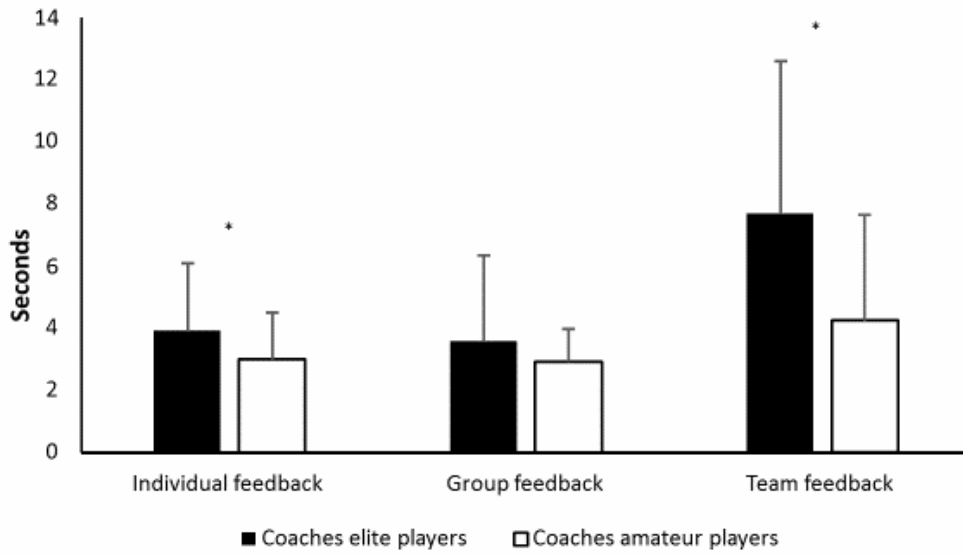


Figure 3: The mean time spent on individual feedback, group feedback and team feedback by the coaches of junior elite soccer players and the coaches of junior amateur soccer players. * = Significant difference between the coaches of junior elite soccer players and the coaches of junior amateur soccer players.

The analysis shows that the coaches of the junior elite players in general used 1 second more on average for each verbal feedback instance (4.66 seconds, SD = 3.37) compared with the coaches of the junior amateur players (3.65 seconds, SD = 2.72). This was a significant difference ($t_{535} = 3.840, p < 0.001$). Further analyses (Figure 3) show that the coaches of the junior elite players used significantly more time on average for each individual feedback instance ($t_{237} = 2.924, p < 0.01$) and team feedback instance ($t_{200} = 5.568, p < 0.001$) than did the coaches of the junior amateur players. However, there were no significant differences between the coaches of the junior elite players and the coaches of the junior amateur players with regard to the time spent on feedback to groups of players ($t_{98} = 1.670, p = 0.098$).

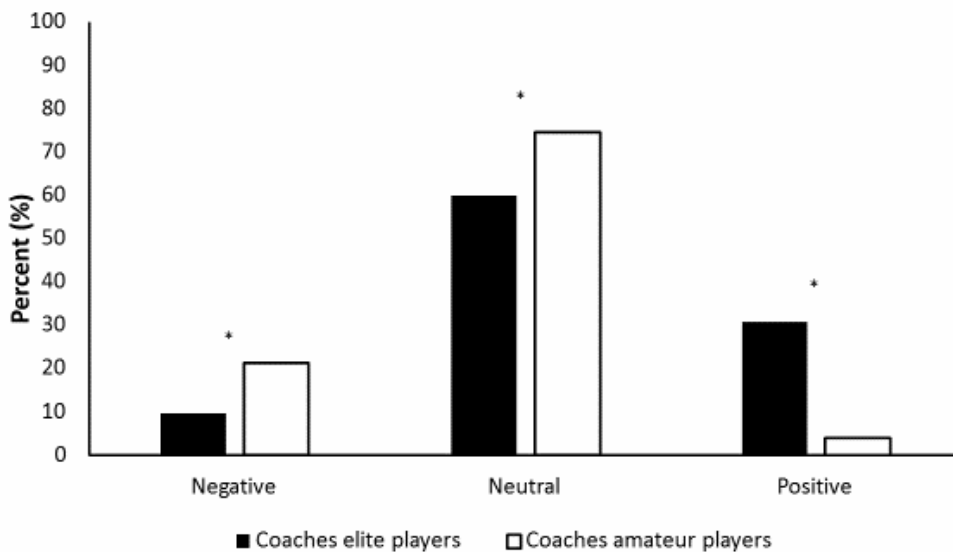


Figure 4: The percentages of negative, neutral and positive feedback from the coaches of junior elite soccer players and the coaches of junior amateur soccer players. * = Significant difference between the coaches of junior elite soccer players and the coaches of junior amateur soccer players.

The analysis show that associations exist between the coaches of the junior elite players and the coaches of the junior amateur players with regard to the feedback valence ($\chi^2_2 = 72.6, p < 0.001$). Whereas 31 percent

(significantly more) of the verbal feedback from the coaches of the junior elite players ($\chi^2_1 = 67.7, p < 0.001$) was positive, only 4 percent of the verbal feedback from the coaches of the junior amateur players was positive. At the other end of the spectrum, 21 percent of the verbal feedback from the coaches of the junior amateur players was negative, whereas 10 percent of the verbal feedback from the coaches of the junior elite players was categorised as negative, which is a significant association ($\chi^2_1 = 14.1, p < 0.001$). The analyses also show that significantly more ($\chi^2_1 = 13.4, p < 0.001$) of the feedback from the coaches of the junior amateur players was neutral (75 percent) compared with the feedback from the coaches of the junior elite players (60 percent).

The qualitative analysis of what the coaches of the two teams said during the feedback suggests that the feedback mainly differed in two ways. First, the verbal feedback from the coaches of the junior elite players seemed to be more concrete than that from the coaches of the junior amateur players. The coaches of the junior elite players more often stopped the game to give concrete feedback on what the players should be doing. An example of such concrete feedback occurred when a coach said the following in an effort to improve the speed of play in the game: *“You have to pass the ball much harder. The speed of the ball is too slow. Pass it directly to the player so he can pass it ahead on one touch”*. Another example was when a coach offered the following feedback to a defender on what to do when meeting an attacker:

The defender is moving forward. You move towards him and see if he will stop or increase the speed. If he stops, you have to be tougher and move directly up to him; if not, you have to move back and follow him in his run.

By contrast, the feedback from the coaches of the junior amateur players was in general less concrete. Some examples of such less concrete feedback from these coaches include the following: *“Get the ball down”*, and *“Good boys, keep on playing. Come on. Keep it going”*. Many of the messages in the feedback seemed to be repeated several times, such as the following: *“Keep the ball rolling. Do it better”*, *“Look around”* and *“Come on now”*.

Second, the qualitative analyses also indicate that the feedback given by the coaches of the junior elite players was more reflective. When the junior elite players encountered certain technical and tactical challenges, their coaches asked them to reflect on these challenges by themselves before giving them the answers. As presented in Figure 3, the coaches of the junior elite players spent more time on verbal feedback. The coaches used this time to ask their players reflective questions and to provide more detailed advice. The following feedback given by a coach during a filmed training session is typical of the feedback provided by the coaches of the junior elite players:

Think of how you can run the best way when the defensive line is stretched. If the ball is turned over to you, and all players are on the move, what do you do? [The player answers the question.] Correct! Proceed with pressure and force forward. Very good pressure! But think about which zone you're passing to. But now, what about if the back kicks the ball to the opposite defender? [The player gets some time to think but has no answer.] Well, if you're in position, and you want to pressure to stress the opponent. But if you lie too far away, you should watch the zone to avoid a play there.

By contrast, the coaches of the junior elite players did not invite the players to reflect as much as did the coaches of the elite players. Our analysis of the field notes indicates that the coaches of the elite club stopped the game more often and then took this opportunity to explain to the players what to do and to encourage the players to think for themselves. The coaches of the non-professional club also encouraged the players to think for themselves, albeit to a lesser degree, and the feedback they provided was also less specific, such as *“Think of the passes”* and *“Think about when we come back to the middle; then we must get an opposite acceleration”*.

Discussion

The results show that the number of feedback sequences and the timing of the feedback did not differ between the coaches of the junior elite players and the coaches of the junior amateur players. Furthermore, the two types of coaches gave the same number of feedback sequences to the players. However, the time spent on verbal feedback differed between the two types of coaches, with the coaches of the junior elite players spending more time on verbal feedback. This finding is in line with Hattie (2013), who claimed that the best instructors give more feedback and are active and involved. The feedback from the coaches of the junior elite players was also directed at individual players to a greater extent than the feedback from the coaches of junior amateur players, and the coaches of the junior elite players spent more time providing individual and team feedback than did the coaches of the junior amateur players. Furthermore, the feedback provided by the coaches of the junior elite players was more positive than that provided by the coaches of the junior amateur players, and the feedback provided by the coaches of the junior amateur players was more negative than that provided by the coaches of the junior elite players. Finally, the qualitative analyses indicate that the feedback from the coaches of the junior elite players was more concrete and reflective than the feedback from the coaches of the junior amateur players. Previous research has illustrated the importance of the ability to transfer knowledge and provide feedback and quality in the learning process and during training sessions in the achievement of the established goals (Trninic, Papic, & Trninic, 2009). The findings will be discussed further.

When to give feedback

Figure 1 shows that with regard to the timing of the feedback, there was no significant difference

between the coaches of the junior elite players and the coaches of the junior amateur players. The results show that both types of clubs mainly gave feedback to their players during training sessions. This finding is supported by previous research showing that the provision of feedback during training sessions is a common strategy among most coaches (Cushion et al., 2012; Partington & Cushion, 2013; Potrac et al., 2007). Figure 1 also shows that the coaches of both types of teams gave little feedback after the training sessions. Similarly, Partington and Cushion (2013) found that the coaches in their study gave little feedback after the training session. The authors argued that players may be less reflective about their own skills and the improvement of their skills with such a strategy and that it is also important that coaches repeat the feedback once the training session is completed. In line with previous research (Cushion & Jones, 2001; Ford et al., 2010; Partington & Cushion, 2013; Potrac et al., 2007), the results indicate that instruction is the most used means of influencing what happens on the training field.

Individual, group and team feedback

Figure 2 shows significant differences between the two groups of coaches with regard to the percentages of instances of verbal feedback given to individuals, to groups of players and to the whole team. Whereas 70 percent of the verbal feedback from the coaches of the junior elite players was given to individual players, only 20 percent of the verbal feedback from the coaches of the junior amateur players was given to individual players. Figure 3 also shows that the coaches of the junior elite players used more time on average for each individual feedback instance than did the coaches of the junior amateur players. Whereas the coaches of the junior amateur players gave 54 percent of their feedback as team feedback (feedback directed at the whole team), the coaches of the junior elite players gave only 21 percent of their verbal feedback as team feedback. However, the coaches of the junior elite players used more time on average for each team feedback instance than did the coaches of the junior elite players. There were no significant differences between the coaches of the junior amateur players and the coaches of the junior elite players with regard to group feedback (feedback directed at groups of two or more players but not the whole team).

The results indicate that the coaches of the junior elite players have an approach that is more in line with research pointing to the importance of individualisation, specific feedback and systematic development for the development of each individual player and team (Martindale et al., 2005, 2007). Research has shown that direct feedback from coaches helps promote effective learning among players, ensure the proper development of players' skills and impact players' motivation to continue with exercise (Williams & Hodges, 2005). Previous research has also highlighted the importance of concrete feedback for the development of young players (Martindale et al., 2005, 2007), and one may argue that to be able to give concrete feedback, it is important that the feedback be individual.

Three of the four coaches of the junior elite soccer team had high levels of soccer education training (UEFA Pro Licence, UEFA A Licence and UEFA B Licence), whereas the two coaches of the junior amateur team had only the lowest level of soccer education training in Norway (UEFA C Licence). The importance of providing individual feedback to players is emphasised at all these levels of soccer education training. However, the differences in the level of knowledge between the coaches of the two teams may explain why the more highly educated coaches gave more individual feedback. Individual feedback has a base in knowledge, and it is easier to give individual and concrete/specific feedback when one has more knowledge. Furthermore, one of the two coaches of the junior amateur team was relatively young, and this lack of experience/knowledge may have led to less individual feedback from this coach. However, our study shows no significant differences in positive feedback between young and old soccer coaches and between less experienced and more experienced soccer coaches (Aristotelis, Kaloyan, & Evangelos, 2013). It is also important to note that the junior elite soccer team (four coaches) had twice as many coaches as the junior amateur soccer team (two coaches). When the numbers of feedback sequences were the same, we argue that it could have been easier to give individual feedback among those coaches. It is also easier to assign specialised roles to coaches (e.g. defensive, offensive) when there are four coaches than when there are only two.

One interpretation of the results is that the elite club is more focused on ensuring that all players have the best possible development. Previous research has shown that player development is all about learning and facilitation (Ommundsen, 2009). Part of the problem here may be that small clubs often have few resources for educating coaches. Obtaining UEFA A and B soccer coaching education is expensive. Therefore, the education of coaches is often put on the back burner because clubs cannot afford to make this type of investment (Cushion, Armour, & Jones, 2003). The provision of appropriate and proper guidance to all players, even in a team sport, might be the difference between success and failure. The results indicate that the individual feedback received by the players in the junior elite team is connected to their performance in training. When players receive feedback, they can then process the information and put it into practice. Players in the junior elite team receive customised training that largely gives them the opportunity to develop. We can also see some of the same principles in schools with customised training (Hattie, 2013; Zeng et al., 2009).

Feedback valence

Figure 4 shows that the coaches of both the elite and amateur junior teams mostly gave neutral verbal feedback. However, there were significant differences in the numbers of positive and negative feedback sequences. Whereas 10 percent of the feedback from the coaches of the junior elite players was negative, 21

percent of the feedback from the coaches of the junior amateur players was negative. In addition, 31 percent of the feedback from the coaches of the junior elite players was positive, but only 4 percent of the feedback from the coaches of the junior amateur team was positive. The skills of the junior amateur players are probably lower than those of the junior elite players, and this may affect the feedback valence. In an intervention study, Gökçe (2014) found that performance-approach achievement goals and motivational climate increased and that performance-avoidance achievement goals and performance-avoidance motivational climate decreased in the positive feedback group. In the negative feedback group, the opposite results were found. In other words, positive feedback had a desired effect.

Our results indicate that the coaches of the junior elite players have an approach that is better suited for realising achievement goals and enhancing the motivational climate. Previous research provides support for the preceding statement (Grouzet et al., 2004; [Halperin, Chapman, Martin, Abbiss, & Wulf, 2016](#); Høigaard et al., 2008; Murray, 2006; Partington & Cushion, 2012). Researchers have identified positive feedback as one of the most preferred coach behaviours among professional soccer players (Høigaard et al., 2008). In a recent study on coaches' behaviour in boxing, Halperin et al. (2016) found that coaches offered more **positive** (29%) than negative **feedback** (12%) overall and that coaches offered more **positive feedback during winning bouts** (36%) than during losing bouts (18%). In addition, Partington and Cushion (2012, p. 98) found that coaches of youth (9–16 years) elite soccer players gave nearly twice as much positive feedback as negative feedback.

Concrete and reflectivereflexive feedback

The analyses of the qualitative data suggest that the coaches of the junior elite players have a feedback approach that is more concrete and reflective than that used by the coaches of the junior amateur players. The coaches of the junior elite players work on specific issues, and they are systematic and skilful at adapting strategies in drills and games to meet the specific needs of each individual player. By contrast, the coaches of the junior amateur players provide feedback that is too general, which can lead to weaker player development. In addition, the coaches of the junior elite players have an approach that seems to be more in line with research pointing to individualisation, specific feedback and systematic development as important elements in the development of each individual player and team (Martindale et al., 2005, 2007). Previous research also suggests that coaches who are responsible for developing child and youth league players should be academically strong and specific in their feedback (Martindale et al., 2005, 2007). The coaches of the junior amateur players here seem to be more focused on training topics and the importance of instilling a strong work ethic among their players. Such an approach may be explained by their lack of knowledge with regard to the importance of providing concrete feedback and of creating reflective players who should work against being their own personal coach (i.e. players should be more open to receiving feedback from others).

Players who receive concrete and specific feedback are in a better position to evolve and have a larger register to play on when the challenges are greater. Assessment of learning is important because it leads to cognitive processes in learning that are better in terms of the learning of skills (J. Hansen & Henriksen, 2009). The coaches in another study also emphasised the importance of stimulating and developing athletes' capacity for reflection (P. Ø. Hansen & Andersen, 2014). Hattie (2013) highlighted that asking youths questions that require them to engage in reflection is important for developing performance. Furthermore, youth players need to receive concrete feedback on their skills and what they can do to improve. According to Gottlieb (2000), coaches who give specific feedback that affects the interaction of behaviour and environment may be able to encourage skill development. Our results indicate that coaches of junior amateur players should think more about their own development, education and learning through practice so as to be better equipped to improve their players' development (Cushion et al., 2003). If clubs do not have the level of coaching competence necessary to develop players' potential, players with good skills may leave because the follow-up is not adequate.

Previous research has shown that the different coaching practices can be challenging with regard to the development of players' skills (Hall & Smith, 2006; Harvey, Cushion, & Massa-Gonzalez, 2010). The verbal feedback given by the coaches of the junior elite players was more reflective in that the junior players were encouraged to reflect before giving answers on how to solve technical and tactical challenges. Such a strategy involves players to a greater degree in the problem-solving and cognitive process. Allowing players to think about their choices and actions is a central part of development. Potrac et al. (2007) also showed that coaches in elite-level English youth football often use questions or give players the opportunity to reflect on their actions. Inviting players to join discussions and reflect on their own choices gives them the opportunity to gain more experience from the cognitive processes that they have been through previously. In addition, previous research has shown that an individual's interaction with the environment is important for the development of skills (Connolly, 1970).

Limitations of the study

One limitation of this study is that the junior elite soccer team (four coaches) had twice as many coaches providing feedback as did the junior amateur soccer team (two coaches). Another limitation is the difference in the level of soccer education between the coaches of the two teams, with the coaches of the junior elite team having a much higher level of soccer education than the coaches of the junior amateur team. However, an argument can be made that these differences between the two teams probably reflect the real situation in elite

and amateur soccer teams; that is, junior amateur soccer teams generally have fewer soccer coaches, and the education level of coaches of junior amateur teams is lower than that of the coaches of elite soccer teams.

The present study only included two junior soccer teams, thereby limiting the generalisability of the results. Even so, this case study gives some insight into how coaches affect players' development in the way they offer feedback to their players. We argue that the two teams are representative of the coaches of junior amateur and junior elite players, but further studies are necessary to confirm our findings.

Conclusion

This study suggests that coaches of junior elite teams provide more individual, concrete and reflective feedback that is more positive in nature compared with that provided by coaches of junior amateur teams. In light of Hattie's (2013) findings and other research, we argue that such an approach is preferable in relation to skill development among players. The present results suggest that qualified coaches with a high level of soccer education and extensive experience have the expertise to provide the right type of feedback to players – feedback that prepares young players to develop further and be better prepared for upcoming challenges. The results of this study also suggest that coaches of junior amateur players provide less individual, concrete and reflective feedback – an approach that seems to be less valuable for players' development of technical and tactical skills. One reason for this disparity may be that junior elite coaches have a higher level of soccer education and thereby have a better knowledge base for providing individual, concrete and reflective feedback. Our findings indicate that it is important to increase the knowledge level among amateur coaches through soccer education. In addition, our results suggest that individual, reflective and concrete feedback may be of major importance. Further studies should include more coaches from more teams so as to increase the generalisability of the findings.

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