

1 **Verbal feedback is the primary mechanism for performance related review in elite English male**
2 **soccer: A quantitative exploration**

3
4 **ORIGINAL INVESTIGATION**
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6
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29 **Abstract**

30 **Purpose:** The aim of the present study was to explore the feedback strategies used within elite male
31 soccer in England. **Methods:** 139 respondents comprising of coaches ($n = 34$), players ($n = 39$), and
32 performance-staff ($n = 66$) completed an online survey. The survey included 17-19 questions covering
33 giving and receiving feedback. **Results:** Daily verbal interactions such as conversations and informal
34 chats were the primary source of feedback and were highly prevalent between the three groups (59-
35 80%). Feedback was delivered frequently (daily/weekly) by all stakeholders at regular time points
36 (before, during, and after training and matches) with >75% of coaches reporting giving feedback at all
37 time points. Two-way feedback was also prevalent, with >76% of participants delivering or receiving
38 feedback two-ways. **Conclusions:** Feedback was delivered frequently and in several formats (verbal;
39 visual; written) but was primarily delivered via daily informal conversations during planning, delivery
40 and reviewing of training and matches therefore highlighting the importance of verbal communication
41 within the process of optimising elite soccer player's development and performance. The high
42 frequency of two-way verbal feedback between stakeholders demonstrates the necessity for
43 interpersonal and intrapersonal skill development and an approach that facilitates these interactions
44 within the optimal environment. Findings provide applied implications for those responsible for
45 delivering optimal player development and performance in soccer.

46

47 **Key words:** Development; Data; Practice; Survey; Decision-making

48 **Introduction**

49 Feedback is defined as information that allows the learner to reflect on decisions made or
 50 performances achieved and determine what they subsequently should or should not do based on the
 51 information delivered.¹ The use of feedback has now expanded beyond the skill acquisition and
 52 education-based literature to other contexts of professional sport such as the perceptions of athletes and
 53 coaches on the impact of feedback on their performance.^{2,3} Athletes perceive feedback to be central to
 54 self-reflection and have repeatedly indicated preferences for delayed and individual feedback.⁴ This
 55 ‘high quality’ feedback is provided not only from their coach, but from other stakeholders such as
 56 performance-staff, parents/carers, and teammates/peers.^{4,5,6} Furthermore, athletes and coaches from
 57 various sports highlight that feedback is a two-way process between giver and receiver.^{7,8} For example,
 58 team-sport players have indicated that feedback provided them with a platform to share reflections with
 59 their coaches.^{2,3} However, in these studies, preferences for greater opportunity to feedback to coaches
 60 and increases in individual feedback were demonstrated, as athletes felt that this gave them
 61 opportunities to clarify the feedback and increased the perceived quality of the information provided.^{4,9}
 62 While studies recognise a need for two-way feedback between coaches and athletes, there is limited
 63 information on the feedback by a range of multidisciplinary stakeholders.¹⁰

64 Both the acute and chronic physical demands of professional soccer have continued to evolve
 65 and increase over time.^{11,12} Subsequently, elite (professional) soccer clubs employ performance-staff
 66 (e.g., sport scientists) to feedback physical performance data to players and coaches.¹³ In England, the
 67 Elite Player Performance Plan (EPPP) aimed to increase the number of home-grown players in the
 68 Premier League (EPL) specifies minimum requirements for performance-staff, and has therefore
 69 resulted in an increase in provision, resources, and staffing across soccer academies.¹⁴ Furthermore,
 70 with the evolution of rules, equipment, and technology there has been a significant growth of
 71 performance-staff (sports scientists; medical staff; performance analysts) over the last two decades.¹⁵
 72 These performance-staff typically use technologies such as global positioning systems (GPS) and micro
 73 electrical mechanical systems (MEMS) to assess athlete physical loading and activity profiles.
 74 Feedback of this information may support their coaches decision-making processes for training
 75 prescription, player (de)selection, and return-to-play.^{10,16,17} With increased use of these technologies,

76 researchers have begun to explore perceptions of feedback from the data collected, providing evidence
 77 that performance-staff generally agree that feedback of physical load data is beneficial to their club.^{18,19}
 78 It had recently been reported that coaches, performance-staff, and players rated physical performance
 79 feedback as at least ‘somewhat important’ in guiding coaching practice and influencing the
 80 practices/behaviours of coaches and players.¹⁰ While the studies have provided insights into the *what*
 81 and *why* of feedback in elite soccer, it is important to understand the mechanisms of the *how*. Thus,
 82 greater understanding of the characteristics of feedback employed in elite soccer is required.

83 Examinations of the behaviours of elite youth soccer coaches have indicated verbal feedback is
 84 one of the most frequently utilised strategies.²⁰ Moreover, coaches and athletes have exhibited
 85 preferences for learning and information sharing through informal sources.^{21,22} Due to the increased
 86 workforce and regular communication within elite male soccer clubs, it can be hypothesised that verbal
 87 interactions would be the primary source of feedback (e.g., coaching instructions; conversations;
 88 informal chats). To that end, the aim of the study is to examine the current feedback strategies of
 89 performance related information employed by stakeholders in elite male soccer in England. Moreover,
 90 we aimed to establish the use of two-way feedback processes across the stakeholder groups.

91

92 **Methods**

93 ***Subjects***

94 Coaches, performance-staff, and players working (time of data collection) in male professional
 95 English soccer clubs voluntarily completed an online survey. For the purposes of this study, professional
 96 soccer clubs were defined as those within the EPL and Football Leagues/tiered academy structure. To
 97 meet the inclusion criteria, players were required to be >16yrs and representing the professional
 98 development phase (PDP; 16-23yrs) or first (senior) team. Coaches and performance-staff were
 99 required to be working full-time with any age group from foundation phase (FP; 9–11yrs), youth
 100 development phase (YDP; 12–16yrs), PDP, and first team,¹⁴ there were no stipulations on how much
 101 experience participants had in these roles. All participants were provided with a information sheet on
 102 the first page of the survey and implied consent was given on submission. The procedure was in line
 103 with the Declaration of Helsinki and approved by a university research ethics committee (18/SPS/029).

104 **Design**

105 Participants were recruited using social media platforms and directly through the research
 106 team’s professional network of contacts. ‘Snowball’ sampling was used to increase visibility where
 107 participants were encouraged to circulate to their networks/peers.²³ The survey was open for
 108 approximately twenty-weeks with regular promotions. Participants were purposely targeted to represent
 109 the three groups.

111 **Methodology**

112 Three separate surveys were created for each group and took an average of 4 ± 1 mins to complete.
 113 Surveys began with a glossary of terms defining feedback as “*information on performance that is used*
 114 *to improve performance and/or development*”. This was followed by several multiple-choice questions
 115 examining participant demographics and several key topics relating to feedback including: frequency
 116 of providing and/or receiving feedback, to understand how often stakeholders exchange different types
 117 of information between each group; timing of providing and/or receiving feedback to understand the
 118 key timepoints around practice and competition stakeholders exchange important information; and
 119 location of providing and/or receiving feedback to understand where and how important information
 120 was exchanged between stakeholders. Each theme was contextually set to explore verbal, written, and
 121 visual feedback. Some questions were specific to each group, while some were standardised to allow
 122 comparison across groups. Questions included multiple-choice responses, and provided an opportunity
 123 for respondents to reply by free text comments if their responses were not presented, as well as yes/no
 124 only responses. Questions were developed by research lead and were based on experience and relevant
 125 literature.^{10,13,19} The survey was reviewed for content validity via four rounds of discussion with the
 126 research team.²¹ Two rounds of pilot testing were performed through discussion with two coaches
 127 (assistant and lead PDP), two players (one PDP (18yrs) and one first team (22yrs) and two performance-
 128 staff (PDP and first team sport scientists) working in a Championship club (participants were not
 129 included in the final data collection). The pilot testing resulted in changes in the wording of some
 130 questions/responses to enhance readability and/or understanding (coach = 6; performance-staff = 6;
 131 player = 7) which were readdressed and approved by the same stakeholders. Surveys were uploaded to

132 the online platform (Survey Monkey, California, US). The final surveys consisted of 19 items for
 133 coaches and performance-staff (11 multiple choice; 8 yes/no) and 17 items for players (9 multiple
 134 choice; 8 yes/no).

135

136 ***Statistical Analysis***

137 Survey responses were exported into Microsoft Excel and subsequently SPSS (IBM, New York,
 138 US) for further analysis. For categorical and multiple-choice questions, we calculated frequencies and
 139 percentages for each response. To assess between-group differences in responses, magnitude-based
 140 inferences were used.^{10,19} Proportion ratios were calculated and assessed against the following
 141 magnitude scale Qualitative inferences trivial, small, moderate, large, very large, and extremely large
 142 were represented by the ratios 1.00, 1.11, 1.43, 2.0, 3.3 and 10 respectively, with their inverses
 143 represented by ratios of 0.9, 0.7, 0.5, 0.3, and 0.1.^{24,25}

144

145 **Results**

146 ***Participant demographics***

147 Of the 139 respondents, 34 were coaches, 66 performance-staff, and 39 players (academy
 148 managers and heads of coaching were included as coaches). The coaching group (C) contained: lead
 149 coach (59%); assistant coach (24%); head of coaching (12%); academy manager (3%). Performance-
 150 staff (PS) group included sports scientists (38%); strength and conditioning coaches (9%);
 151 physiotherapists (6%); performance analysts (26%); nutritionists (6%); psychologists (3%); heads of
 152 sports science and medicine (6%); and heads of physical performance (6%). Players (PI) represented
 153 the: first team (21%); U23s (41%); and U18s (38%) squad (**Table 1**). All C and almost all PI (98%)
 154 represented clubs in either the EPL or the EFL Championship, whereas PS were more evenly distributed
 155 across leagues (only one (3%) respondent was an EPL player). Within first team environments, PI (21%)
 156 and PS (39%) were represented more than C (5%), resulting in very large and extremely large
 157 differences, respectively. Most PS (75%) worked with PI >16yrs (PDP or first team), whereas the
 158 distribution of C through the other phases was more even. Respondents within academies were mainly

159 represented by CAT-1 clubs (84-100%), yet there was some representation of PS (16%) and C (10%)
 160 across CAT-3/4 clubs, whereas there was none for PI, representing extremely large differences.

161

162 ***Insert Table 1 around here***

163

164 ***Type and frequency***

165 Most PS (80%) and C (71%) reported that verbal feedback was delivered through daily informal
 166 chats. Moreover, verbal feedback was delivered through formal meetings on a daily and weekly basis
 167 (PS, 75%; C, 72%). Written feedback between PS and C was primarily delivered as a combination of
 168 daily and weekly reports on a computer screen (62-63%), and e-mails/texts (61-72%; **Table 2**). Verbal
 169 feedback from PS to PI was delivered through daily and weekly informal chats (PS, 93%; PI, 90%), and
 170 instructions during training (PS, 71%; PI, 90%). For visual feedback, 51% of PI reported receiving video
 171 feedback from PS on a weekly basis, however there were small to large differences between groups for
 172 the frequency of video feedback due to the varied responses by PS. Most written feedback was delivered
 173 daily and weekly through paper-based reports (51-72%) and reports shown on a computer screen (68-
 174 74%; **Table 3**). Verbal feedback was delivered by C to PI through daily informal chats (C, 79%; PI,
 175 72%) and daily instructions during training/matches (C, 91%; PI, 92%). Visual feedback was primarily
 176 delivered through daily demonstrations (coaches, 79%; players, 67%), weekly video feedback (C, 74%;
 177 PI, 77%), and weekly use of a tactics board (C, 56%; PI, 77%). There was less use of written feedback
 178 between C and PI, with reports shown on a computer screen on weekly basis only being reported 51-
 179 56% of the time (**Table 4**).

180

181 ***Insert Tables 2-4 around here***

182

183 ***Timing***

184 Most feedback between PS and C was delivered after training and matches (>85%), with 68%
 185 of PS and 74% of C reporting delivering and/or receiving feedback before training. 50-55% reported
 186 delivering and/or receiving feedback during training and matches (**Figure 1a**). Feedback from PS to PI

187 was delivered after training and matches, with over 86% of respondents from both groups responding
 188 *yes* to these times (**Figure 1b**). Over 72% of PI and C reported that feedback occurred across all time
 189 points (**Figure 1c**).

190

191 ***Insert Figure 1 around here***

192

193 **Location**

194 Between PS and C, the most frequent locations were training pitch (C, 88%; PS, 74%), e-
 195 mail/text (C, 82%; PS, 80%), and offices (C, 85%; PS, 92%). Amongst PS and PI, training pitch (PS,
 196 72%; PI, 77%), individual/group meetings (PS, 86%; PI, 82%), and gym (PS, 72%; PI, 85%) had the
 197 highest proportion of *yes* responses from both groups. Feedback between C and PI was primarily
 198 delivered on the training pitch (C, 100%; PI, 100%), in group or individual meetings (C, 94%; PI, 95%),
 199 and in the dressing room (C, 85%; PI, 69%).

200

201 **Two-way feedback**

202 Survey responses to delivering or receiving two-way feedback are shown in **Figure 2**. Two-
 203 way feedback within stakeholder groups was highly prevalent, with over 76% of participants responding
 204 *yes* to delivering or receiving feedback two-ways. All coaches reported *yes* to delivering feedback to
 205 other coaches.

206

207 ***Insert Figure 2 around here***

208

209 **Discussion**

210 The aim of the present study was to examine feedback of performance related information in
 211 elite male English soccer clubs. The central finding was the primary source of feedback was verbal and
 212 was predominantly delivered in an informal nature, such as daily conversations between stakeholders.
 213 Players receive high quantities of feedback that were a consequence of their programme that contains
 214 large quantities of practice and competition.²⁶ Furthermore, it was established that performance

215 feedback between stakeholders is a two-way process, demonstrating there are frequent opportunities
216 where feedback can potentially improve player performance and assist in the reflective elements of the
217 coaching process, with verbal feedback being the most frequently used feedback tool.

218 A key finding from the survey was the importance of informal communication between
219 stakeholders. Most verbal feedback between performance-staff, coaches, and players was daily and was
220 primarily informal, brief conversations. The relatively high frequency reported by players may be
221 underpinned by their increased prospect of engagement with the feedback process when presented in
222 this way.¹⁰ Coaches typically favour developing their knowledge (e.g., practice design) via informal
223 (collaboration with peers and/or mentor) over formal sources²⁷, thus it is not surprising that the most
224 frequent method of feedback from performance-staff to coaches was informal, potentially guiding
225 future practice.¹⁰ Furthermore, frequent informal communication methods employed by all
226 stakeholders may be seen as integral to the effectiveness of multidisciplinary teams within elite soccer,
227 as it provides opportunities for shared reflections, learning, and relationship building.¹³ Soccer clubs
228 have previously reported that good internal communication among coaches, sports scientists, and
229 medical staff leads to more favourable outcomes, such as lower player injury burdens and higher
230 training and match availability.²⁸ The data provides further evidence of the value of utilising the power
231 of informal interactions for effective communication between all stakeholders within the elite soccer
232 environment. It can be recommended that stakeholders such as performance-staff may look to develop
233 increased interpersonal skills such as knowledge of social contexts, relationship building, and
234 intrapersonal skills such as self-regulation and reflection to deliver meaningful feedback that is
235 purposeful and not 'noise'.^{16,29}

236 The feedback process observed by coaches and performance-staff are indicative of the current
237 coaching process and workflow of stakeholders who operate in elite soccer environments.^{30,31} For
238 example, feedback is delivered at a high frequency by performance-staff to coaches in a range of formats
239 (verbal; graphical; written) on a daily/weekly basis. In addition to informal communication,
240 performance-staff also report they deliver feedback in formal meetings (74%) and using graph-based
241 data (66%) or email/text/WhatsApp (72%) on a daily/weekly basis. This is not unexpected given
242 previous work examining the nature of feedback from scientists such as performance analysts across a

243 range of sporting contexts.^{4,32,33} It has previously been reported that the clarity and timeliness of training
 244 load data reports are central for communication.^{10,18,19} However, coaches generally agree that high
 245 volumes of data and/or poor communication can cause barriers to effective feedback.¹⁰ Without
 246 consideration, performance staff may risk an information overload to coaches, an approach which is
 247 indicative of feedback strategies that can attenuate understanding/learning.¹ It can be recommended that
 248 reducing the amount of information provided to coaches, yet ensuring the correct data is included may
 249 bridge the translational gap between data and decision-making.^{10,31,34} For instance, principal component
 250 analysis of physical data can be applied within elite soccer to reduce the amount of GPS information
 251 fed back from sports scientists to coaches.³⁵ Feedback is delivered in high frequencies and varying
 252 formats, however more research is required to further understand which information is provided, and
 253 how much is perceived to be useful across stakeholders.

254 The data illustrated that performance-staff primarily provided feedback to coaches before
 255 training, and after training and matches. Consistent with previous work indicating both groups reflected
 256 and evaluated training sessions prior to training.¹⁰ The higher values in the present study may be
 257 reflective of feedback from a broad range of performance-staff rather than physical data alone, fed back
 258 by sports scientists. Notwithstanding the nature of the information, these data support the suggestion
 259 that feedback of such information facilitates not only the use of reflection and/or review after training
 260 or matches^{36,37}, but also planning and decision-making processes prior to training or matches.^{10,19} While
 261 information is typically provided by coaches during practice, feedback from sports scientists is
 262 uncommon, therefore an ‘integrated delivery model’ may not be regularly applied currently. Integrated
 263 feedback of performance information in elite soccer is an area for development, where future gains have
 264 been shown to be made in both coaching and physical skills.^{38,39}

265 A further study aim was to establish the use of two-way feedback processes across stakeholder
 266 groups. All participants reported they both provided and received feedback between and within groups,
 267 indicating that a two-way interaction exists.⁷ For example, two-way interactions between
 268 managers/coaches and their support staff, managers/coaches, and their players, as well as
 269 managers/coaches and the clubs board, have been shown to be prevalent across different sports
 270 settings.⁴⁰ For players, the two-way nature of the feedback mechanisms has been shown through

271 athlete's accounts of their involvement in video feedback sessions, demonstrating they are given the
272 opportunity to feedback to their coaches and/or peers.^{3,4,5,9} These findings provide further evidence that
273 athletes are no longer seen as just the receivers of feedback, but now play an active role in the process.³²
274 An agreement between both players and performance-staff indicated that players are also the givers of
275 feedback to both performance-staff and coaches, showing further support for the suggestion that players
276 should be recognised and included within the feedback process.^{10,22} The high quantity of two-way
277 feedback together with verbal feedback as the primary source demonstrates that lines of communication
278 are open between all stakeholders, and two-way feedback during daily conversations may be vital to
279 improve performance and development in elite soccer. Approaches that optimise the time, space, and
280 opportunity for feedback to occur is advocated, yet further research is still required to further understand
281 the mechanisms that underpin two-way feedback and whether it is effective to inform practice and
282 improve performance.

283

284 **Limitations**

285 The present study is not without limitations. With regards to response rate, 139 stakeholders
286 completed the survey across three groups and could be considered low. Increased response rates are
287 usually indicative of findings with greater external validity.⁴¹ A challenge during this and future
288 research addressing perceptions of three groups of stakeholders was recruiting participants from
289 coaches and players. There is also a possibility within the findings of a clustering of responses, as
290 multiple responses were allowed from one club. This was enabled to access as many participants as
291 possible, and to ensure ecological validity of the findings in the applied club environment in which the
292 research was predominantly carried out. It should be acknowledged that responses are from a range of
293 soccer clubs, yet the potential for sampling bias must also be acknowledged when interpreting the
294 survey data for several reasons. Firstly, there is a much higher representation from performance-staff
295 than coaches and players, which may indicate that the reach of the survey through social media and
296 snowball sampling may have resulted in an over representation of participants from this stakeholder
297 group. Therefore, it could be anticipated that response rates were higher amongst this demographic and
298 may skew the results.

299 **Practical Applications**

300 Frequent informal communication methods among all stakeholders are integral to the
301 effectiveness of multidisciplinary teams within elite soccer, providing opportunities for shared
302 reflections, learning, and relationship building. Performance staff should develop interpersonal skills
303 (e.g., social context knowledge, relationship building) and intrapersonal skills (e.g., self-regulation,
304 reflection) to deliver meaningful and purposeful feedback. Reducing the amount of information
305 provided to coaches, while ensuring the inclusion of relevant data, can help bridge the gap between data
306 and decision-making. An approach which optimises the time, space, and opportunity for feedback is
307 recommended, yet further research is necessary to understand the mechanisms underpinning effective
308 two-way feedback to inform practice and improve performance.

309

310 **Conclusions**

311 Building on previous work in performance analysis, coaching, and training load monitoring,
312 this study examined the *how* of feedback of performance related information in elite soccer in England.
313 Key findings from the survey demonstrate the prevalence of verbal feedback within this environment.
314 Feedback was delivered in several formats but was primarily delivered via daily informal conversations
315 during planning, delivery, and reviewing of practice and matches, thus highlighting the importance of
316 verbal communication in the process of attempting to optimise player development and performance.
317 Stakeholders perceive feedback to be delivered highly frequently, highlighting the many opportunities
318 where it can be utilised by practitioners. Finally, feedback was delivered via a two-way process between
319 all stakeholders, illustrating open channels of communication. Practitioners should aim to optimise their
320 interpersonal and communication skills to capitalise on these frequent verbal feedback opportunities
321 within the elite soccer environment. To improve the process, future research may provide opportunities
322 to further explore stakeholders' perceptions of feedback, their motivations to use these strategies, and
323 their effectiveness in influencing decision-making and informing behaviour change.

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426 **Figure Captions**

427 **Figure 1.** Timing of feedback delivery between key stakeholders (a) performance staff (Black bars) and
428 coach (Light-grey bars), (b) performance staff (Dark-grey bars) and player, (c) coach and player.

429 **Figure 2.** Player (PL), coach (C) and performance staff (PS) responses to delivering and receiving 2-
430 way feedback between (T = To; F = From) and within groups.

VERBAL FEEDBACK IN ELITE MALE SOCCER

431 **Table 1.** Proportion of league clubs worked with, player age categories, academy status and level of experience represented by the participants. Also included
 432 are proportion ratios (Coaches: Performance Staff, Coaches: Players, Performance Staff :Players) and the qualitative inferences.

433

	Coaches % (no.)	Perf Staff % (no.)	Players % (no.)	Proportion Ratio	Qualitative Inference
<i>^aWhich league does your senior team/club currently play in?*</i>					
Premier League	33 (1)	37 (13)	3 (1)	0.9; 13; 14.5	Small; Extremely Large; Extremely Large
Championship	67 (2)	37 (13)	95 (37)	1.8; 0.7; 0.4	Moderate; Small; Large
League 1	0 (0)	9 (3)	0 (0)	0.0; 0.0; 0.0	Extremely Large; Extremely Large; Extremely Large
League 2	0 (0)	17 (6)	3 (1)	0.0; 0.0; 6.7	Extremely Large; Extremely Large; Extremely Large
<i>^bWhich team/age group do you currently mainly work with/play for?*</i>					
First Team	5 (2)	39 (35)	21 (8)	0.1; 0.2; 1.9	
Professional Development Phase	41 (18)	36 (32)	79 (31)	1.1; 0.5; 0.5	
Youth Development Phase	36 (16)	17 (15)	0 (0)	2.2; N/A; N/A	
Foundation Phase	16 (7)	8 (7)	0 (0)	2; N/A; N/A	
<i>^cWhat is your club's current academy status?</i>					
Category 1	53 (16)	68 (21)	77 (23)	0.8; 0.7; 0.9	Small; Small; Small
Category 2	37 (11)	16 (5)	23 (7)	2.3; 1.6; 0.7	Large; Moderate; Small
Category 3	7 (2)	13 (4)	0 (0)	0.5; 0.0; 0.0	Moderate; Extremely Large; Extremely Large
Category 4	3 (1)	3 (1)	0 (0)	1.0; 0.0; 0.0	Trivial; Extremely Large; Extremely Large
<i>How many years' experience do you have in your current role?***</i>					
0-1 Year	15 (5)	6 (4)		2.4	Large
1-3 Years	12 (4)	38 (25)		0.3	Very Large
3-6 Years	24 (8)	21 (14)		1.1	Small
6-9 Years	24 (8)	20 (13)		1.2	Small
10-12 Years	9 (3)	9 (6)		1.0	Trivial
12+ Years	18 (6)	6 (4)		2.9	Large

434

435 **Footnotes** ^a77 Total responses, with 3 by coaches, 35 by performance staff and 39 by players. *Coaches and Performance Staff only answered if they worked
 436 with First Team; ^b172 Total responses, with 44 by coaches, 89 by performance staff and 39 by players. **Professional development phase was further
 437 subdivided into U23s and U18s for players. ?*** ^c91 Total responses, with 30 by coaches, 31 by performance staff and 30 by players. ***Participants didn't
 438 respond if they selected that they worked with First Team on previous question.

VERBAL FEEDBACK IN ELITE MALE SOCCER

439 **Table 2.** Proportion of performance staff and coach’s responses to the frequency of delivery and reception of verbal, visual, and written forms of feedback
 440 along with ratio of proportion and qualitative inference for the ratio.
 441

		Coaches % (no.)	Perf Staff % (no.)	Proportion Ratio	Qualitative Inference
<i>How often do you give/receive the following types of VERBAL feedback to/from your coach/performance staff?</i>					
<i>Informal Chats or Conversations</i>	<i>Never</i>	3 (1)	2 (1)	0.52	Moderate
	<i>Every Day/Session</i>	71 (24)	80 (53)	1.14	Small
	<i>Every Game/Week</i>	21 (7)	9 (6)	0.44	Large
	<i>Every 1-2 Months</i>	3 (1)	9 (6)	3.09	Large
	<i>Every 3-6 Months</i>	3 (1)	0 (0)	0	Extremely Large
<i>Formal Meetings</i>	<i>Never</i>	12 (4)	15 (10)	1.25	Small
	<i>Every Day/Session</i>	27 (9)	35 (23)	1.28	Small
	<i>Every Game/Week</i>	45 (15)	39 (26)	0.87	Small
	<i>Every 1-2 Months</i>	9 (3)	9 (6)	1.00	Trivial
	<i>Every 3-6 Months</i>	6 (2)	2 (1)	0.25	Very Large
<i>How often do you give/receive the following types of VISUAL feedback to/from your coach/performance staff?</i>					
<i>Video</i>	<i>Never</i>	28 (9)	36 (24)	1.29	Small
	<i>Every Day/Session</i>	19 (6)	18 (12)	0.97	Trivial
	<i>Every Game/Week</i>	25 (8)	26 (17)	1.03	Trivial
	<i>Every 1-2 Months</i>	16 (5)	9 (6)	0.58	Moderate
	<i>Every 3-6 Months</i>	13 (4)	11 (7)	0.85	Small
<i>Graph Based Data</i>	<i>Never</i>	13 (4)	11 (7)	0.85	Small
	<i>Every Day/Session</i>	28 (9)	42 (28)	1.51	Moderate
	<i>Every Game/Week</i>	25 (8)	24 (16)	0.97	Trivial
	<i>Every 1-2 Months</i>	25 (8)	20 (13)	0.79	Small
	<i>Every 3-6 Months</i>	9 (3)	3 (2)	0.32	Large
<i>How often do you give/receive the following types of WRITTEN feedback to/from your coach/performance staff?</i>					
<i>Reports on a Computer Screen</i>	<i>Never</i>	15 (5)	17 (11)	1.13	Small
	<i>Every Day/Session</i>	21 (7)	30 (20)	1.47	Moderate
	<i>Every Game/Week</i>	41 (14)	33 (22)	0.81	Small
	<i>Every 1-2 Months</i>	12 (4)	18 (12)	1.55	Moderate
	<i>Every 3-6 Months</i>	12 (4)	2 (1)	0.13	Very Large
<i>Email/Text/Whats.App</i>	<i>Never</i>	9 (3)	15 (10)	1.69	Moderate
	<i>Every Day/Session</i>	24 (8)	34 (22)	1.40	Small
	<i>Every Game/Week</i>	36 (12)	38 (25)	1.06	Trivial
	<i>Every 1-2 Months</i>	18 (6)	6 (4)	0.34	Large
	<i>Every 3-6 Months</i>	12 (4)	6 (4)	0.51	Moderate

442

VERBAL FEEDBACK IN ELITE MALE SOCCER

443 **Table 3.** Proportion of performance staff and player’s responses to the frequency of delivery and reception of verbal, visual, and written forms of
 444 feedback along with ratio of proportion and qualitative inference for the ratio.

445

		Perf Staff % (no.)	Players % (no.)	Proportion Ratio	Qualitative Inference
<i>How often do you give/receive the following types of VERBAL feedback to/from your players/performance staff?</i>					
<i>Informal Chats or Conversations</i>	<i>Never</i>	5 (3)	3 (1)	1.77	Moderate
	<i>Every Day/Session</i>	79 (52)	59 (23)	1.34	Small
	<i>Every Game/Week</i>	14 (9)	31 (12)	0.44	Large
	<i>Every 1-2 Months</i>	2 (1)	8 (3)	0.20	Very Large
	<i>Every 3-6 Months</i>	2 (1)	0 (0)	0	Extremely Large
<i>Instructions During Training/Match</i>	<i>Never</i>	26 (17)	8 (3)	3.35	Very Large
	<i>Every Day/Session</i>	53 (35)	64 (25)	0.83	Small
	<i>Every Game/Week</i>	18 (12)	26 (10)	0.71	Small
	<i>Every 1-2 Months</i>	3 (2)	3 (1)	1.18	Small
	<i>Every 3-6 Months</i>	0 (0)	0 (0)	N/A	N/A
<i>How often do you give/receive the following types of VISUAL feedback to/from your players/performance staff?</i>					
<i>Video</i>	<i>Never</i>	26 (17)	21 (8)	1.26	Small
	<i>Every Day/Session</i>	14 (9)	15 (6)	0.89	Small
	<i>Every Game/Week</i>	32 (21)	51 (20)	0.62	Moderate
	<i>Every 1-2 Months</i>	21 (14)	10 (4)	2.07	Large
	<i>Every 3-6 Months</i>	8 (5)	3 (1)	2.95	Large
<i>Graph Based Data</i>	<i>Never</i>	18 (12)	3 (1)	7.09	Very Large
	<i>Every Day/Session</i>	18 (12)	21 (8)	0.89	Small
	<i>Every Game/Week</i>	41 (27)	54 (21)	0.76	Small
	<i>Every 1-2 Months</i>	20 (13)	13 (5)	1.54	Moderate
	<i>Every 3-6 Months</i>	3 (2)	10 (4)	0.30	Large
<i>How often do you give/receive the following types of WRITTEN feedback to/from your players/performance staff?</i>					
<i>Reports on a Computer Screen</i>	<i>Never</i>	17 (11)	13 (5)	1.30	Small
	<i>Every Day/Session</i>	18 (12)	15 (6)	1.18	Small
	<i>Every Game/Week</i>	50 (33)	59 (23)	0.85	Small
	<i>Every 1-2 Months</i>	15 (10)	13 (5)	1.18	Small
	<i>Every 3-6 Months</i>	0 (0)	0 (0)	N/A	N/A
<i>Email/Text/WhatsApp</i>	<i>Never</i>	33 (22)	62 (24)	0.54	Moderate
	<i>Every Day/Session</i>	12 (8)	8 (3)	1.58	Moderate
	<i>Every Game/Week</i>	32 (21)	21 (8)	1.55	Moderate
	<i>Every 1-2 Months</i>	23 (15)	5 (2)	4.43	Very Large
	<i>Every 3-6 Months</i>	0 (0)	5 (2)	0.00	Extremely Large

446

VERBAL FEEDBACK IN ELITE MALE SOCCER

447 **Table 4.** Proportion of coach’s and player’s responses to the frequency of delivery and reception of verbal, visual, and written forms of feedback along with
 448 ratio of proportion and qualitative inference for the ratio.

449

		Coaches % (no.)	Players % (no.)	Proportion Ratio	Qualitative Inference
<i>How often do you give/receive the following types of VERBAL feedback to/from your players/coaches?</i>					
<i>Informal Chats or Conversations</i>	<i>Never</i>	0 (0)	3 (1)	0.00	Extremely Large
	<i>Every Day/Session</i>	79 (27)	72 (28)	1.11	Trivial
	<i>Every Game/Week</i>	18 (6)	21 (8)	0.86	Small
	<i>Every 1-2 Months</i>	0 (0)	5 (2)	0.00	Extremely Large
	<i>Every 3-6 Months</i>	3 (1)	0 (0)	0.00	Extremely Large
<i>Instructions During Training/Game</i>	<i>Never</i>	0 (0)	3 (1)	0.00	Extremely Large
	<i>Every Day/Session</i>	91 (31)	92 (36)	0.99	Trivial
	<i>Every Game/Week</i>	9 (3)	3 (1)	3.44	Very Large
	<i>Every 1-2 Months</i>	0 (0)	3 (1)	0.00	Extremely Large
	<i>Every 3-6 Months</i>	0 (0)	0 (0)	N/A	N/A
<i>How often do you give/receive the following types of VISUAL feedback to/from your players/coaches?</i>					
<i>Video</i>	<i>Never</i>	3 (1)	3 (1)	1.15	Small
	<i>Every Day/Session</i>	12 (4)	13 (5)	0.92	Trivial
	<i>Every Game/Week</i>	74 (25)	77 (30)	0.96	Trivial
	<i>Every 1-2 Months</i>	12 (4)	8 (3)	1.53	Moderate
	<i>Every 3-6 Months</i>	0 (0)	13 (5)	0.00	Extremely Large
<i>Demonstration</i>	<i>Never</i>	0 (0)	8 (3)	0.00	Extremely Large
	<i>Every Day/Session</i>	79 (27)	67 (26)	1.19	Small
	<i>Every Game/Week</i>	21 (7)	21 (8)	1.00	Trivial
	<i>Every 1-2 Months</i>	0 (0)	5 (2)	0.00	Extremely Large
	<i>Every 3-6 Months</i>	0 (0)	0 (0)	N/A	N/A
<i>How often do you give/receive the following types of WRITTEN feedback to/from your players/coaches?</i>					
<i>Paper Based Reports</i>	<i>Never</i>	30 (10)	31 (12)	0.98	Trivial
	<i>Every Day/Session</i>	3 (1)	3 (1)	1.18	Small
	<i>Every Game/Week</i>	24 (8)	36 (14)	0.68	Moderate
	<i>Every 1-2 Months</i>	27 (9)	15 (6)	1.77	Moderate
	<i>Every 3-6 Months</i>	15 (5)	15 (6)	0.98	Trivial
<i>Email/Text/Whats.App</i>	<i>Never</i>	33 (11)	51 (20)	0.65	Moderate
	<i>Every Day/Session</i>	12 (4)	13 (5)	0.95	Trivial
	<i>Every Game/Week</i>	27 (9)	21 (8)	1.33	Small
	<i>Every 1-2 Months</i>	21 (7)	10 (4)	2.07	Large
	<i>Every 3-6 Months</i>	6 (2)	5 (2)	1.18	Small

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