# Criteria/KPIs how to rate a fitness coach/department in soccer

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## Headline

Soccer players are regularly exposed to systematic and repetitive exercise stimuli with the target of maximising performance, delaying the onset of fatigue and reducing the risk of injury. Monitoring training load is therefore essential in managing the training ‘’dose’’ to ensure the desired improvements in performance are attained (Akubat et al, 2012; Akenhead & Nassis, 2016). Interactions between training load prescription and the subsequent training outcome (such as fitness, fatigue and performance), are the criteria of an effective training plan. In a soccer team, monitoring, analysis and interpretation of training load data is typically the responsibility of the supporting staff (i.e. sport science, strength and conditioning, medical) (Weston, 2018). The big challenge for practitioners is to make meaningful interpretations of the daily monitoring which ultimately will inform the training prescription and be translated into actionable steps for all relevant stakeholders in the team (Gabbett et al, 2017). Coaches and support staff agree on the importance of training load monitoring, with reducing injuries, evaluating the effectiveness of their training prescription, detecting fatigue, and prescribing adequate recovery (Akenhead & Nassis, 2016; Weston, 2018).

## Aim

To study the criteria and find the key performance indicators (KPIs) that the respective stakeholders working in a professional soccer team; appreciate as more important for a fitness coach or a fitness department.

## Methods

### *Participants*

To obtain information on issues related to KPIs how to rate a fitness coach/department in a soccer team, we conducted a short cross-sectional survey. Here, practitioners (n=230) from all over the world (strength and conditioning coaches, sport scientists, soccer coaches, medical staff and team administrators) currently working in elite soccer (from senior to academy level), were asked about their perception on the particular topic.

### *Design*

The survey was circulated privately to known contacts with data collected using an online survey platform (google formes). The survey consisted of five questions, covering two main areas: 1) introduction/ informed consent and background information (Questions 1 to 4), and 2) eleven objective and subjective ways to rate a fitness coach/department (Questions 5), where practitioners had to rate from 1-5 the importance of each one. The study was conducted in accordance with the Helsinki Declaration.

### *Statistical analysis*

Descriptive data are presented as mean ± standard deviation (SD).

## Results

***Demographics:***

Survey respondents (n=230) have been working in soccer industry from clubs across all over the world (figure 1) with responsabilities in the area of Strength and Conditioning (32%), Sport Science (20%), Coaching (29%), Medical (9%) and Administration (10%). 43% (n=98) of the survey respondents have working in Youth teams (U9-U21) and 57% (n=132) in a senior level.

***Responses:***

Mean ± SD of the survery responds are displayed in Figure 2. The 2 areas that were most rated as the most important criteria for practitioners when evaluate a fitness coach or a fitness department in a professional club were: 1) fitness coach behavior/character (4.4 ± 0.19) and 2) training/match availability (4.2 ± 0.19). The 3 less important areas were: 1) board feedback (3.1 ± 0.2), 2) team achievements (3.0 ± 0.3) and 3) team win percentage (2.8 ± 0.3).

**Figure 1.**Survey respondents map

## Discussion

The physiological demands of soccer are complex and multidimensional. There are number of factors that synthesise players physical preparation to play a competitive match-play. Therefore, the criteria to rate a fitness department are becoming much more challenging and difficult to measure. Should practitioners simply disregard any effort to relate physical performance to team success? (Carling, 2013). Indeed, when we asked practitioners what they perceive to be the most important areas when they rate a fitness department work the first two highly rated areas were fitness coach character and training/match availability. Having players available, free of injuries, to train or play the game is perceived as a fundamental element for team success. Although, it is essential for soccer players to have a well-developed phy-

sical training plan, the nature of the game itself with all the match-play contextual factors often don't allow highly trained soccer players to reach their physical potential during match-play (Paul et al, 2015). Soccer players do not have to be the fittest athletes but at least, be able to compete with high level of physical performance whilst minimizing risk of injury and implementing in high level their required tactical actions (Lacome et al, 2017). The high variability in physical performance of the game demands which is influenced by a myriad of factors such as own and opponent playing style, team formation and tactics, and individual fitness characteristics (Carling et al, 2008) does not allow criteria such as players game physical/technical/data data to be a highly rated factor when assess a fitness department. Furthermore, team achievments and win percentage are consider to be the least important to all practitioners when rating a fitness department.

## Practical Applications

The 2 areas that were most rated as the most important criteria for practitioners when evaluate a fitness coach or a fitness department in a professional club were:
1) Fitness Coach behavior/character
2) Training/Match Availability.

## Limitation

The proportion of survey respondents were more strength and conditioning coaches, sports scientists and coaches and less medical staff or team administrators.

| Order | Variable | Result | Type |
|---|---|---|---|
| 1 | Fitness coach behavior/character | 4.4 ± 0.2 | Subjective |
| 2 | Training/Match Availability | 4.2 ± 0.2 | Objective |
| 3 | Coach Feedback | 3.9 ± 0.2 | Subjective |
| 4 | Players game physical data | 3.8 ± 0.2 | Objective |
| 5 | Players Feedback | 3.8 ± 0.2 | Subjective |
| 6 | Players Performance testing | 3.7 ± 0.2 | Objective |
| 7 | Game 1st half vs 2nd half performance | 3.5 ± 0.3 | Objective |
| 8 | Players game technical/tactical data | 3.1 ± 0.2 | Objective |
| 9 | Boarder Feedback | 3.1 ± 0.2 | Subjective |
| 10 | Team Achievements | 3.0 ± 0.3 | Subjective |
| 11 | Team win percentage | 2.8 ± 0.3 | Objective |

**Figure 2.** Survey responds results

| Role | Fitness coach behavior/character | Players Performance testing | Players game physical data | Players game technical/tactical data | Game 1st half vs 2nd half performance | Training/Match Availability | Team win percentage | Players feedback | Coach feedback | Boarder feedback | Team achievements |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Football coach | 4.3 | 3.6 | 3.6 | 3.4 | 3.7 | 4.1 | 3.0 | 3.8 | 4.0 | 3.1 | 3.2 |
| Medical staff | 4.2 | 3.3 | 3.8 | 2.9 | 3.0 | 3.8 | 2.2 | 3.6 | 3.5 | 2.8 | 2.4 |
| Sports Scientist | 4.8 | 3.8 | 3.9 | 3.1 | 3.4 | 4.6 | 2.7 | 4.0 | 4.0 | 3.2 | 2.8 |
| Strength and Conditioning Coach | 4.4 | 3.8 | 3.9 | 3.1 | 3.5 | 4.3 | 3.1 | 4.0 | 3.9 | 3.5 | 3.3 |
| Team administration | 4.4 | 3.8 | 3.8 | 3.0 | 3.8 | 4.3 | 3.1 | 3.6 | 4.0 | 3.0 | 3.1 |
| **Average** | 4.4 ± 0.2 | 3.7 ± 0.2 | 3.8 ± 0.2 | 3.1 ± 0.2 | 3.5 ± 0.3 | 4.2 ± 0.3 | 2.8 ± 0.3 | 3.8 ± 0.2 | 3.9 ± 0.2 | 3.1 ± 0.2 | 3 ± 0.3 |

**Figure 3.** Survey responds results by role working in a team setting

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