

ELITE PLAYERS' PERCEPTION OF
**FOOTBALL PLAYING
SURFACES**





STUDY BACKGROUND

This article summarises the outcome of an 18 month study commissioned by FIFA and supported by FIFPro aimed at determining elite players' perceptions of football playing surfaces. The article outlines the preliminary findings along with simplified statistical analysis, a comprehensive report along with peer-reviewed academic papers will be generated, which will provide a more in-depth presentation of the findings.

The Sports Technology Institute at Loughborough University over the past decade has built extensive knowledge in the area of elite athlete perception testing, having interviewed and published work on players from a multitude of sports such as Golf, Hockey, Rugby, Football, Cricket and Martial Arts. The methodology for athlete testing has been refined over the years and yet is very dependent upon the level and sports in which the athletes participate in that are under scrutiny.

INTRODUCTION

Football is a global sport with over 112,000 registered elite players worldwide. Each elite player plays for a club within the territory of one of the 209 Fédération Internationale de Football Association (FIFA) member associations which represent football within their respective territory. Given the global distribution of member associations, playing surface conditions can vary substantially between associations, due in part, to factors such as climate.

As a consequence, for the 2004/2005 season, the laws of the game were modified to sanction the use of both natural grass and football turf, ('football turf' also refers to 3rd generation artificial or synthetic pitches). The first wave of countries/leagues to introduce football turf encountered resistance. However, as football turf's popularity has increased, be it for genuine climate difficulties or for economic benefits, more and more countries/leagues are using it.

Given the variety of the different playing surfaces include natural grass, reinforced natural turf, football turf and hard surfaces (for example, clay, sand, gravel and wood) that the players come in contact with, it was considered essential by FIFA with the support of FIFPro to gain an understanding of how all these surfaces influences a players training and match day play.

AIM OF STUDY

To develop a comprehensive understanding of elite football players' perceptions of the influence of the playing surface on the game of football.

OBJECTIVES OF STUDY

- To identify players' requirements for a good quality playing surface
- To ascertain issues of importance to players in assessing the quality and suitability of playing surfaces

- To relate pitch characteristics to the way in which the game is played
- To relate players' perceptions with current and previous playing experience, physical attributes, playing positions, playing style and psychological attributes
- To identify areas for future research and investigation on playing surfaces

METHODOLOGY

The study was completed in two phases; Phase 1 captured elite level players' perceptions on playing surfaces using an open-ended, unstructured interview process. This approach provided detailed information and structured anecdotal evidence from the players interviewed and was chosen as it allowed the players to lead the discussion, focussing on topics and issues that mattered to them. These topics and issues were then used to formulate a structured questionnaire which was spread across the 209 Member Associations of FIFA during Phase 2 of the study.

Phase 1: Qualitative Player Interviews

The subjective data captured in Phase 1 was collected from players at eight clubs competing in the highest tier of the French and Dutch leagues, who had played league fixtures on both natural grass and football turf, during the second half of the 2010/2011 season. Face-to-face interviews were conducted with players, coaches, medics and physiotherapists using open and non-leading questions. Interviews were carried out individually and in small groups, referred to as focus groups.

In total, 32 focus groups were conducted during the data collection stage of Phase 1. This gave a total of 124 participants, consisting of 103 elite footballers and 21 staff. A method based on the grounded theory approach was used to structure the raw qualitative data collected; the process revealed mutually exclusive dimensions (**Figure 1**)

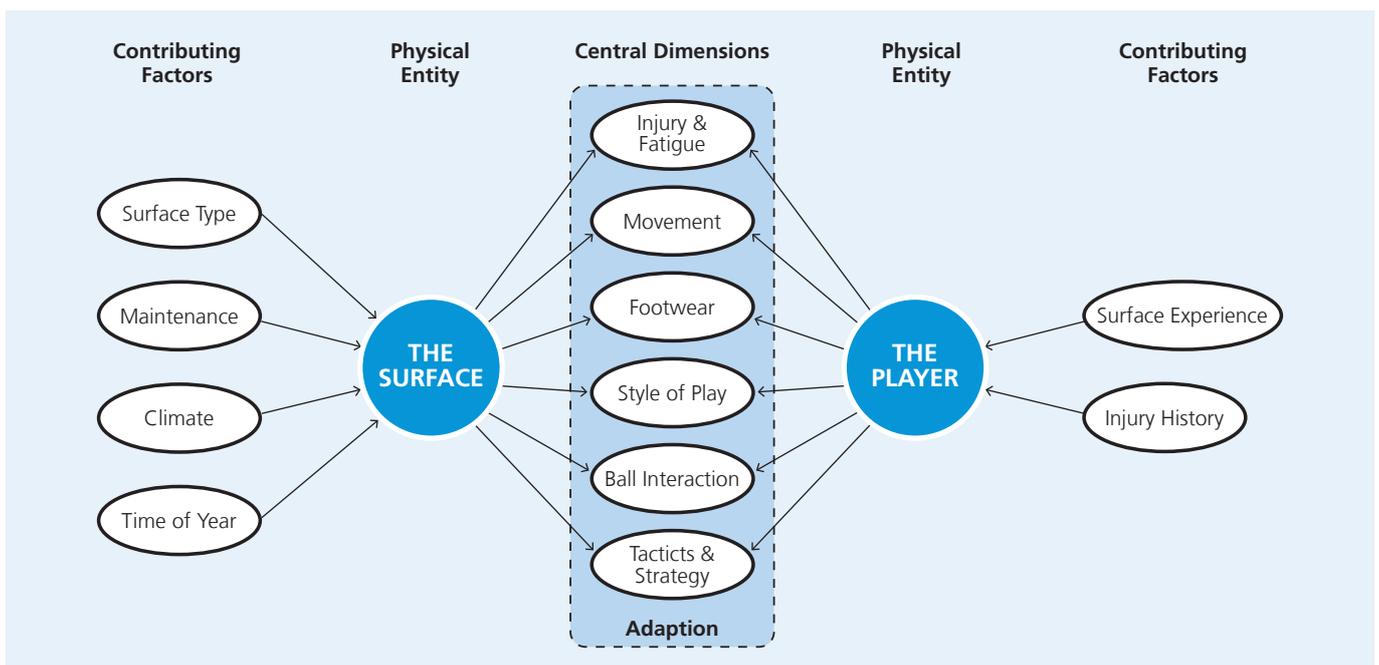


Figure 1: Relationship Map of Themes

encompassing the players' perceptions of football surfaces. **Figure 1** shows a relationship map of the major themes that players mentioned during the entire interview process.

Phase 2: Quantitative Online Questionnaire

The major themes from Phase 1 (**Figure 1**) were then used to construct a questionnaire to reach a wide range of elite level players. From the FIFA Big Count in 2006, there were 112,000 registered elite players across the six FIFA confederations. Based on this figure, a target sample size from each confederation was calculated that would allow analysis of the results to be carried out with an acceptable level of confidence. A selection strategy was then used to identify target countries and clubs to participate in the study.

Once questionnaire data had been collected it was combined with background information for each player such as weight, height, nationality, clubs played for, number of appearances in domestic and international fixtures and playing position, to form a central database. With all the data in one location, it was subjected to a data cleaning process to ensure the data allowed meaningful conclusions to be drawn. All data was then analysed using the statistical analysis software R

PRELIMINARY RESULTS

A total of 1,129 players playing in 44 countries completed the questionnaire, of which 111 were female and 1,018 were male (see **Figure 2** and **Figure 3** for breakdown numbers for questionnaire and world map of all players that completed the questionnaire). The data was analysed based on age, weight, confederation, height, gender and surface experience.

DETAILS	NO. OF PLAYERS
Obtained Total	
Countries	44
Players	1,129
Gender Split	
Female	111
Male	1,018
FIFA Confederations (Obtained)	
AFC	161
CAF	199
CONCACAF	99
CONMEBOL	115
OFC	50
UEFA	505

Figure 2: Breakdown of Obtained Statistics for Questionnaire

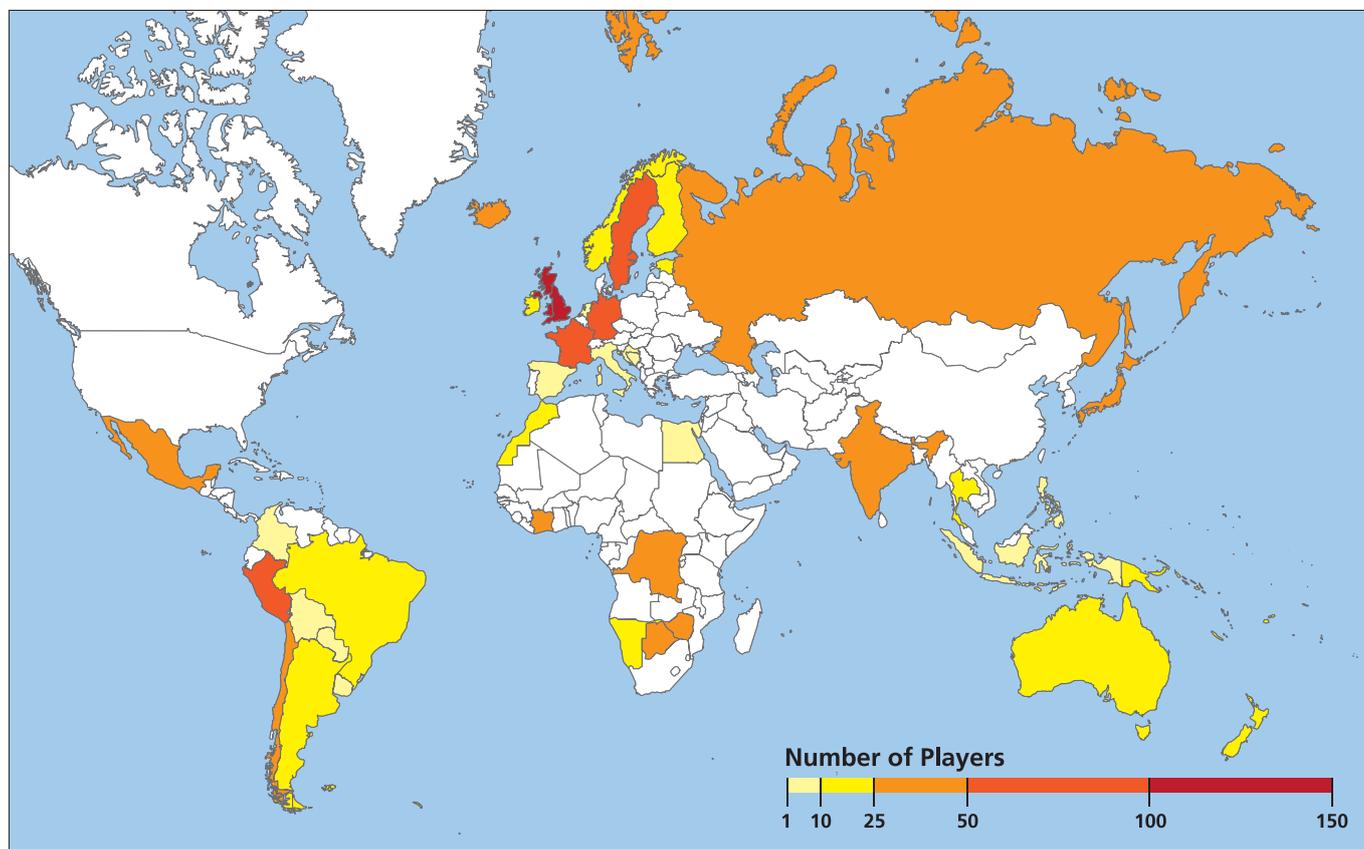


Figure 3: Worldwide distribution of players that completed the questionnaire

■ STRONGLY DISAGREE
 ■ DISAGREE
 ■ NEUTRAL
 ■ AGREE
 ■ STRONGLY AGREE

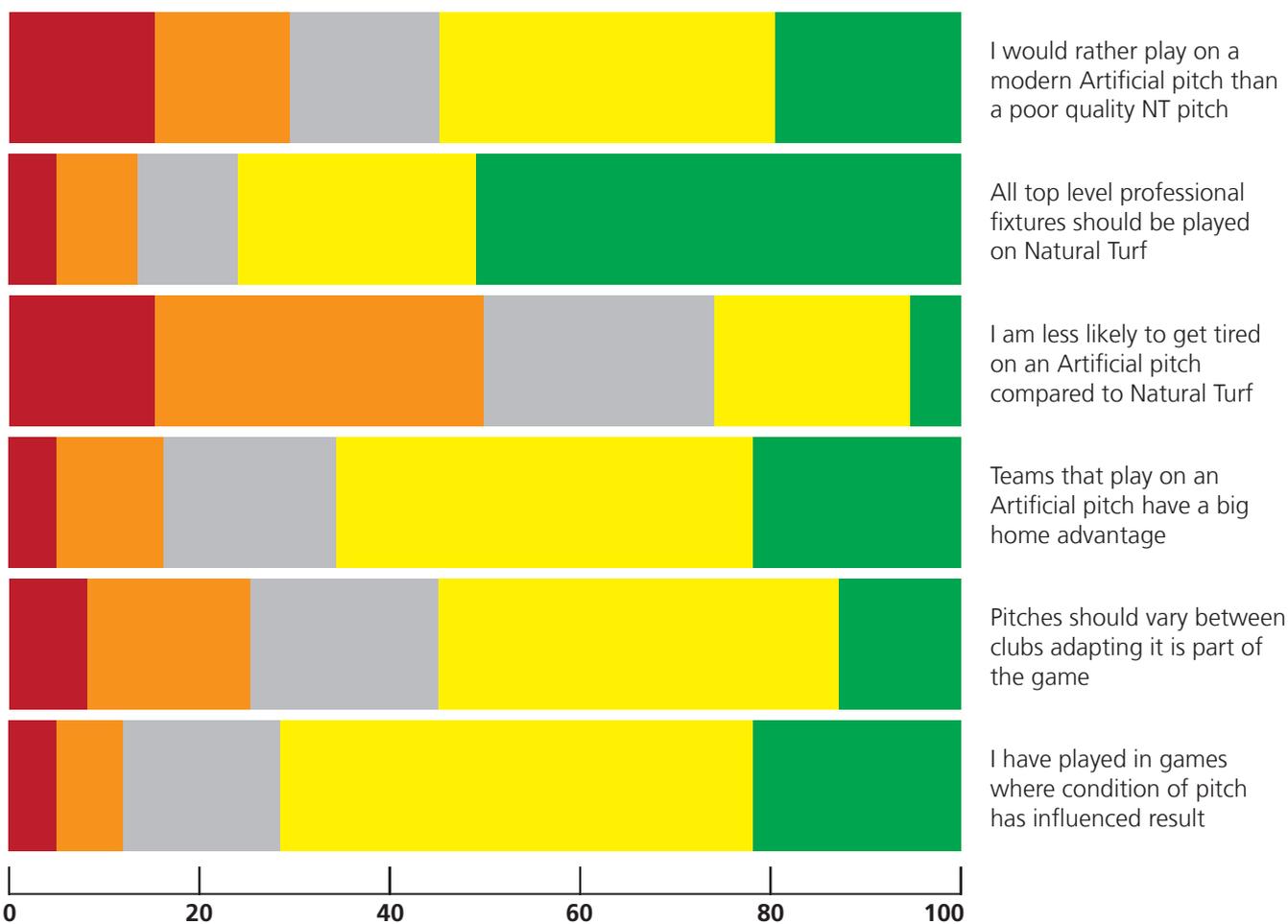


Figure 4: Player Opinions Questions

CONCLUSION

The preliminary findings are:

- Players surface experience varies by global region
- Footwear choice varies with surface and also between playing positions and age
- Players perceive pitch properties to be more variable on 'football turf' surfaces compared to natural turf
- Players perceive the injury risk to be higher on football turf pitches than on natural grass, although the reported injuries are associated to soreness and fatigue, rather than muscular tears or fractures.
- Styles of play are seen as being changeable on different surfaces and a level of adaptation is required.
- 59% of players have had no experience of playing on football turf
- Study indicates differences of opinion according to gender, age, global region and surface experience. Analysis of these and other factors are on-going



It is hoped that once full analysis of the study is completed the findings will be of use to FIFA (to aid future research and investigation on playing surfaces), players/coaches (to fully understand if current views on the different playing surfaces are based on perception or factual data) and manufacturers (to use the data/views expressed by the players to develop surfaces that will benefit all concerned).