Perception analysis of amateur players and coaches on artificial and natural grass

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Introduction

Artificial and natural grass football field construction has grown exponentially during last years (Burillo, 2009). Traditionally natural grass fields have been built in cities with big economic resources that allowed them to maintain it in perfect conditions for sporting leading to the competition. During last years, favoured by the peak of the "sport for all", artificial turf has been introduced as an ideal surface to satisfy sporting population, exceeding quickly the expectative that laid down on this surface for the football practice (FIFA, 2007). At present, artificial turf is winning the race against the rest of surfaces in amateur competitions (Burillo, 2009). Nevertheless, nowadays few studies have been carried out about the perception of the football agents (players and coaches) on these surfaces.

Aims and Methods

The aim was to determine the degree of satisfaction for coaches and players on artificial and natural grass as sport surface for football. It has been carried out a descriptive, quantitative and correlational study, through two satisfaction surveys made for this investigation, asking about their perception on these surfaces. The sample of the study was 75 coaches (standard error 4.6%) and 368 football players (standard error 3%) in amateur categories that carry out its sport activity in fields of natural grass and artificial turf in Spain.

Results and Discussion

Results show that for the sport functionality, used hours time, conservation state, flatness and homogeneity, both agents show significantly positive valuations ($p < 0.05$) for the artificial turf over the natural grass. These results have been corroborated in other investigations (FIFA, 2007). On the other hand, players prefer the ball bounce (vertical and angular) on the natural grass, as well as Anderson et al. (2008) and Zanetti (2009) founded in elite and amateur players.

Regarding the security issues, artificial turf obtains worse valuations than natural grass, mainly when grows the sport practice category. The main problem of artificial turf for coaches and players is the temperature surface rise that means more possible skin abrasions injuries on artificial turf. Nevertheless, similar studies (Ekstrand et al., 2006; FIFA, 2007) have showed that

new generation artificial grass do not produce significantly more skin abrasion injuries than natural grass.

Players and coaches also show that natural grass is the best shock absorption surface due to its smallest stiffness. Alcántara (2007) did not find significant differences for the natural grass in their mechanical tests, and they point out that the differences between both surfaces are minimum or nonexistent.

Conclusions

There are not significant differences in the general evaluation for both surfaces of coaches and players; in both cases perceptions are satisfactory. The advance in the new generations researches of artificial turf will achieve a type of synthetic surface with some characteristics very similar to the natural grass. The artificial turf will prevail in the near future according to these factors and the current advantages that it already has.

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