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A STUDY ON THE REAL MADRID FOOTBALL TEAM'S FULL-BACKS' INVOLVEMENT IN THE ATTACK

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ABSTRACT. Real Madrid is one of the best teams in the world. This study examines the team's game system and the full-backs' involvement in the attack based on a video analysis. How effectively they enter the attack, what passes they complete in the different parts of the pitch (attacking, middle, defensive third) and how they help the team's attacks. I analyzed in the flat back four game scheme the importance of the full-backs and their participation in the attack. I examined the matches of the first ten round in the 2015/2016 season, with special emphasis on the efficiency of the full-backs' entry into the attack. In each match the team's line-up was characterized by the flat back four game scheme. I prepared a graph for each match which shows what passes were completed by the full-backs and how successful they were. The results of the analyzed matches (n = 10) reveal that out of the total number of passes (1239) 597, that is 48%, were forward passes which aimed at helping the attack. 587 times the passes were completed by the full-backs and 461 times they were successful which equals to a pass accuracy of 77%. 32% of the passes took place in the attacking third, whereas in the middle third 52% and in the defensive third only 16% of the passes occurred. This study also addresses in details the passing efficiency. Another method that I used in the study is the heatmap. It is a special chart pointing out that throughout the whole match up to what degree took the full-back part in the game in the different parts of the pitch and where he was the most active. The graph shows only the two full-backs' play which makes it very easy to analyze which parts of the football pitch were they the most active. The figures reveal the number of the ball contacts in the examined matches and based on this it is obvious that the left full-back was much more active during the matches. Without doubt it can be said that in Real Madrid team the left full-back helps the attacks in an almost midfielder manner. The arrows located on the heatmap indicate the direction of the team's attack, helping the analysis of the graph.

Keywords*: game scheme, full-back, pass, top team*

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Introduction

I chose this football team on the basis of personal sympathy and my own affection to football. Real Madrid playing in La Liga was in 2015 the organization with the biggest income in the world (nemzetisport.hu, 2016). My study is based on the first ten matches of the 2015/2016 autumn season. The team was supervised by a Spanish professional, Rafael Benítez. The game scheme changed twice during the matches. First, the team had a 4-2-3-1 line-up, then they switched to the flat back four game scheme, so the 4-3-3 option, which is very popular among other teams as well (Bangsbo J. & Peitersen B., 2003). The game scheme is placing the players, the forces on the pitch in harmony with the defensive and attacking tasks that characterize the team (Toth J. & Jr. Tóth J., 2011). This had no effect on the result of the study, because the full-backs had a significant role in the attack in both systems.

Football today is very fast and is characterized by a lot of passes and attacks and for this reason the role of the full-backs in the attack is of great importance. While analyzing the matches I was focusing on how they help the attack. The attack involves all the eleven players but not in an equal measure and same way. I was focusing on the efficiency of passing during the match. A good attack requires an accurate, fast, forward pass. Without this, it is almost impossible to get over to the opponent's half. In my analysis I prepared a chart which shows the passes that the full-backs completed in the attacking third, in the middle third and in the defensive third. The conscious control of the ball, its transfer to a teammate is called a pass. Based on this it is obvious how important it is that the full-backs enter the attack. In a modern attack not only the strikers and the midfielders but also the full-backs have a very important role (Csanádi, 1978).

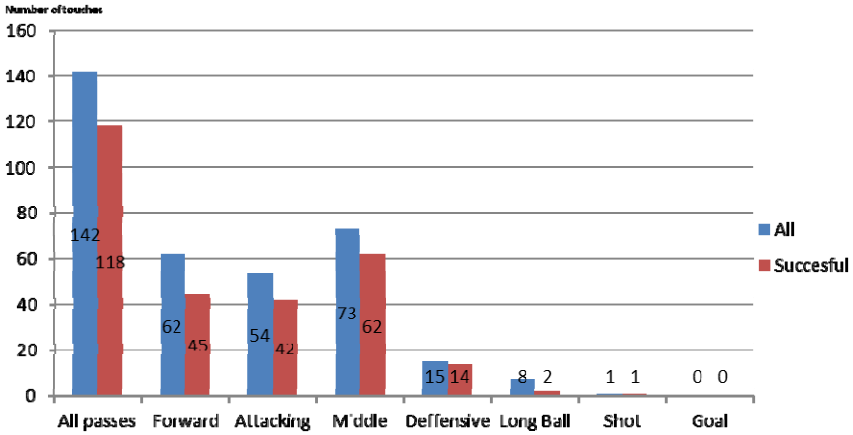
Objective

The scope of the full-backs' roles has changed since he is more actively involved in the attack (Jones, 2012). This is exactly what motivated me when choosing the aim of this study which is to demonstrate the effectiveness of the full-backs of the Real Madrid team. During my research I introduce a new technical tool, the heatmap which is used in stadiums equipped with the latest technology. It monitors each player's moves separately. However, it can only be seen in the most advanced stadiums. The heatmap shows the moves of each player in the different parts of the pitch. (Bíróné, 2011).

Results

1. match

Sporting Gijon: Real Madrid 2015. 08. 23. Score: 0:0



Graph 1. Real Madrid wingback all passes

In the match there were 140 passes completed by the full-backs, of which 62 were forward passes. As far as forward passes are concerned 45 of them were successful which means an accuracy of 72%. 54 passes took place in the attacking third and 15 in the defensive third. The match was completed with a pass accuracy of 84%.

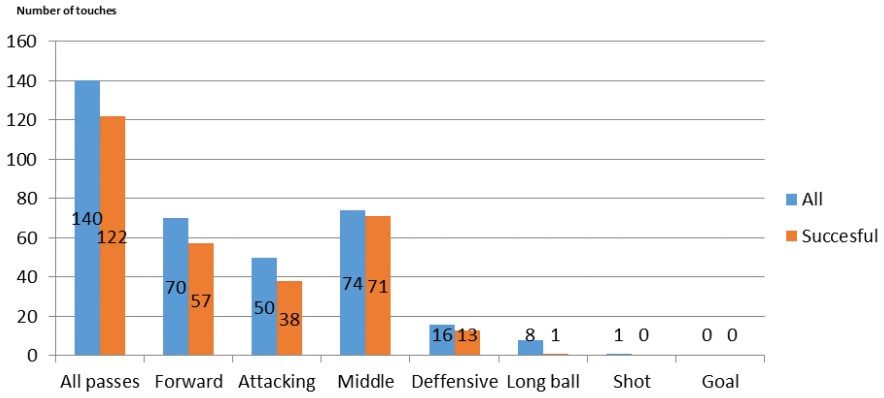
Heatmap

Figure 1. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985459/Live

As shown in the graph, the left full-back was more actively involved in the attacks, particularly in the middle third. In the match they had 183 ball contacts, the left full-back 107 and the right full-back 76. The heatmap points out the parts of the pitch where the ball contacts took place.

2. match

Real Madrid: Betis 2015.08.29. Score: 5:0



Graph 2. Real Madrid wingback all passes

In the match the players completed 140 passes, of which 122 were successful resulting in an outstanding pass accuracy of 87%. The number of the forward passes was 70, of which 57 were successful which means a pass accuracy of 81%. 50 passes took place in the attacking third and 16 in the defensive third.

Heatmap

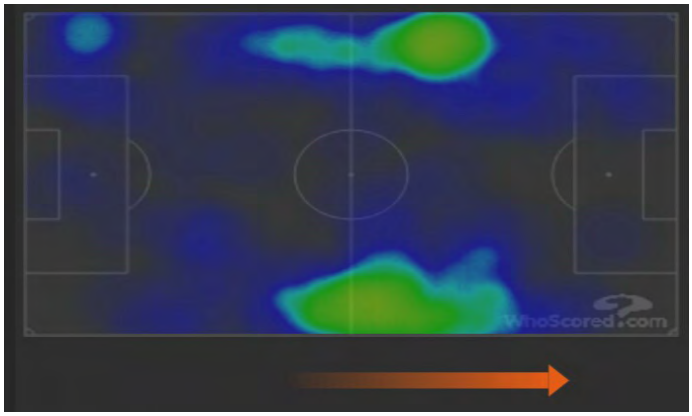
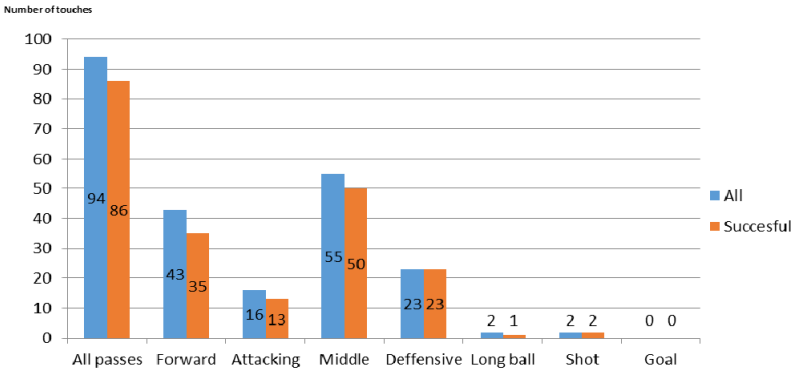


Figure 2. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. Retrieved from: https://www.whoscored.com/Matches/985469/Live

The graph shows how actively were the two defenders involved in the attacks. They were moving almost exclusively in the attacking third. In the match they had 172 ball contacts, the left full-back 87 and the right 85. The heatmap illustrates the places where the contacts took place. They had hardly any contacts in the defensive third.

3. match

Espanyol: Real Madrid 2015.09.12. Score: 0:6



Graph 3. Real Madrid wingback all passes

In comparison to the previous matches there was a lower number of passes. Out of the total 93 passes 86 were successful which equals to a pass accuracy of 92%. There were 43 forward passes, of which 35 were successful resulting in a pass accuracy of 81%. The number of the passes taking place in the defensives third was 23.

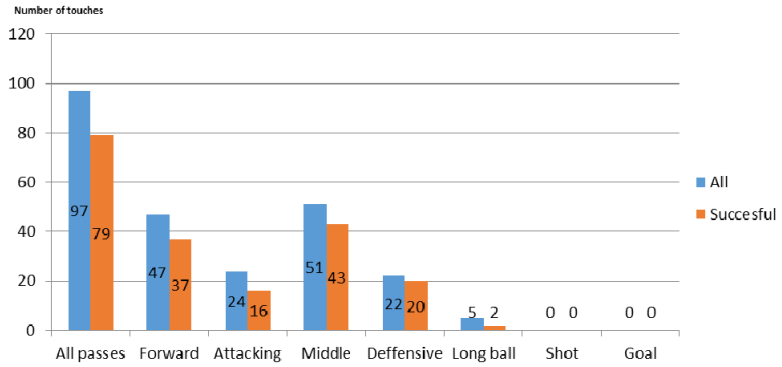
Heatmap

Figure 3. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985478/Live

As shown on the map this match did not require such an active involvement in the attacks as the other ones. The number of the ball contacts that the full-backs had was 126, 66 completed by the left and 60 by the right full-back. The map shows the places where the contacts took place.

4. match

Real Madrid: Granada 2015.09.19. Score: 1:0



Graph 4. Real Madrid wingback all passes

In this match there were 97 passes, of which 47 were forward passes. In percentage it is 48%. Out of the 47 forward passes 37 were successful which means a pass accuracy of 79%. In the attacking third there were 24 passes, in the defensive third 22 which is relatively a lot. The match was completed with a pass accuracy of 81%.

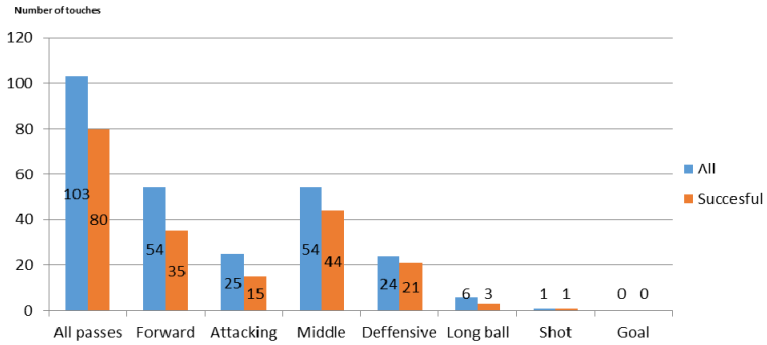
Heatmap

Figure 4. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985518/Live

As shown on the map the right full-back was more actively involved in the attacks than the left, who spent more time in the middle third. The left full-back had 78 ball contacts, the right one 60, so the total number is 138. Their moves can be seen on the map.

5. match

Athletic Bilbao: Real Madrid 2015.09.23. Score: 1:2



Graph 5. Real Madrid wingback all passes

The match was completed with 103 passes. The number of the forward passes was 54, which is 52%. 35 forward passes were successful which resulted in a pass accuracy of 65%. As shown on the graph most passes, 54 to be precise, took place in the middle third. There was an unsuccessful goal-shooting as well.

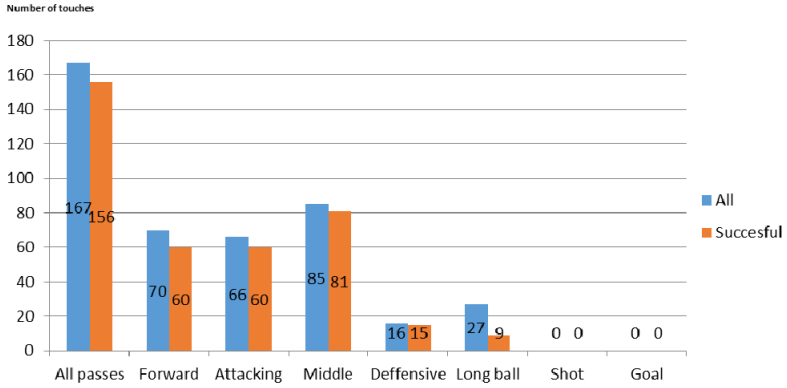
Heatmap

Figure 5. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985495/Live

As shown on the map the left full-back was more active than the right one. He had his most active performance in the middle third, however, his moves can be seen in the attacking third too. The full-backs had 142 ball contacts in the match. As the heat map shows, the left full-back had 80 and the right full-back 62 ball contacts.

6. match

Real Madrid: Malaga 2015.09.26 Score: 0:0



Graph 6. Real Madrid wingback all passes

This match can boast with the highest number of passes, 167 to be precise. It is an outstanding number. There were 70 forward passes, of which 60 were successful bringing a pass accuracy of 86%. 66 passes occurred in the attacking third. The graph shows that the passes completed by the full-backs significantly helped the attacks.

Heatmap

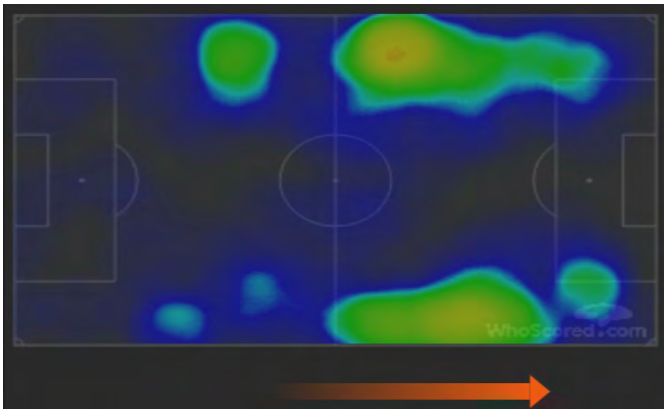
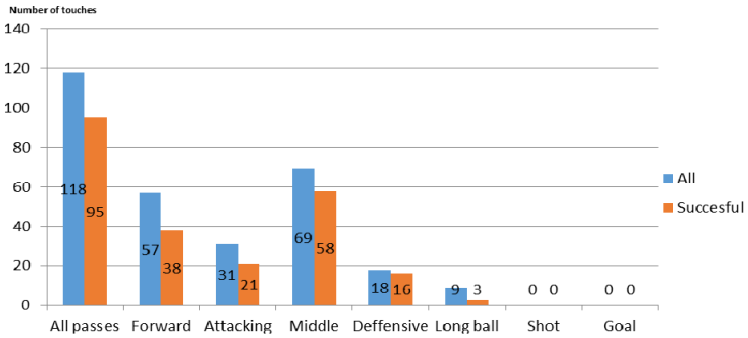


Figure 6. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985482/Live

Based on the map everybody can see the full-backs' significant contribution to the attack. Their defending role can only be seen in the middle third and attacking third of the pitch. This proves the important role that the full-back performs in the attacks. The full-backs had 220 ball contacts. The left full-back can boast with 112 and the right full-back with 108 contacts. The heatmap points out the parts of the pitch where the ball contacts took place. Taking into consideration that the total number of ball contacts was 818 in this match, the 220 contacts completed by the full-backs is a distinguished result.

7. match

Atletico Madrid: Real Madrid 2015.10.04. Score: 1:1



Graph 7. Real Madrid wingback all passes

Out of the total 118, 57 were forward passes which is 48%. 38 out of the 57 forward passes were successful which is a 67% pass accuracy. There were 31 passes in the attacking third, 69 in the middle third and 18 in the defensive third. Based on this it can be stated that the full-backs were concentrating on the forward game.

Heatmap

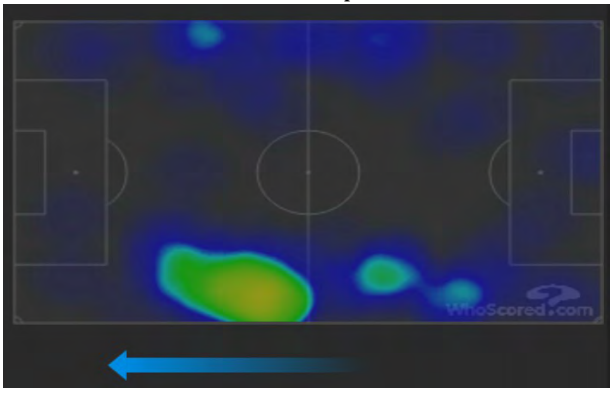
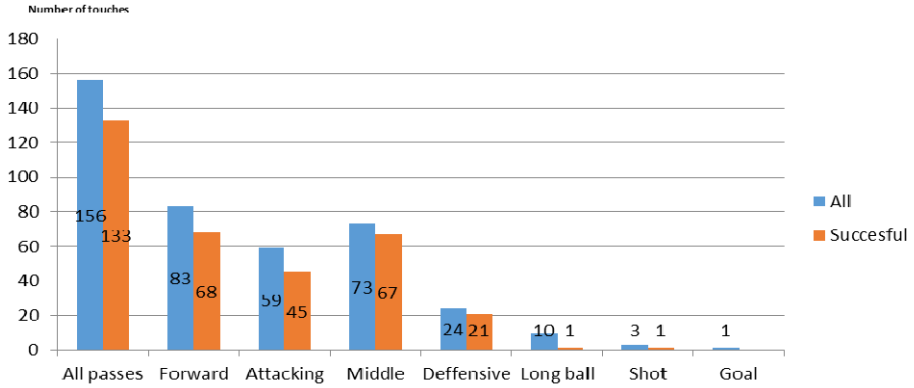


Figure 7. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985501/Live

As shown on the map the role of the left full-back is almost the same as that of the midfielder since he is so actively involved in preparing the attacks. The left full-back had 78, the right 66 ball contacts which is in total 144. This can be seen on the heatmap, too.

8. match

Real Madrid: Levante 2015.10.17 Score: 3:0



Graph 8. Real Madrid wingback all passes

The match was completed with 156 passes, of which 83, in percentage 52% were forward passes. The 68 successful passes equal to a pass accuracy of 82%. In the attacking third there were 59 passes, in the defensive third 24. It can also be seen on the map that the passes completed by the full-backs helped the attacks.

Heatmap

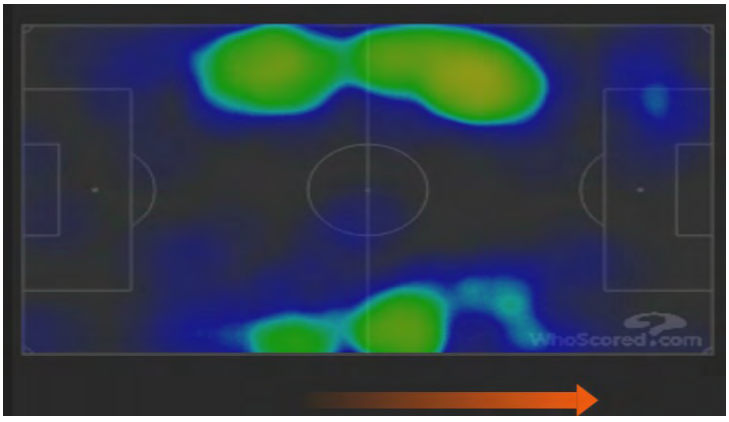
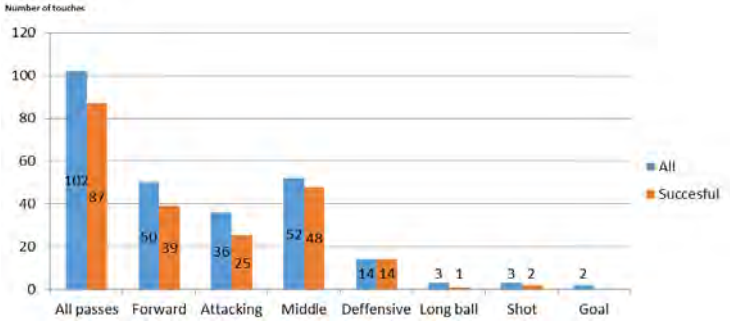


Figure 8. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985535/Live

As shown on the map the left full-back helped the attacks up to a great degree. His most active performance took place in the middle third. The right full-back was a little more passive, however, his most active performance took place in the middle third too. The full-backs had 197 ball contacts, of which the left full-back had 116 and the right full-back 81. The heatmap shows the parts of the pitch where they took place.

9. match

Celta Vigo: Real Madrid 2015.10.24. Score: 1:3



Graph 9. Real Madrid wingback all passes

There were 102 passes in the match, of which 50 - 49% - were forward passes. 39 forward passes were successful, that is a pass accuracy of 78%. 36 passes took place in the attacking third. There were 3 goal-shooting attempts, of which 2 resulted in a goal. As for the full-backs they had an excellent performance in this match with a 3:1 final score.

Heatmap

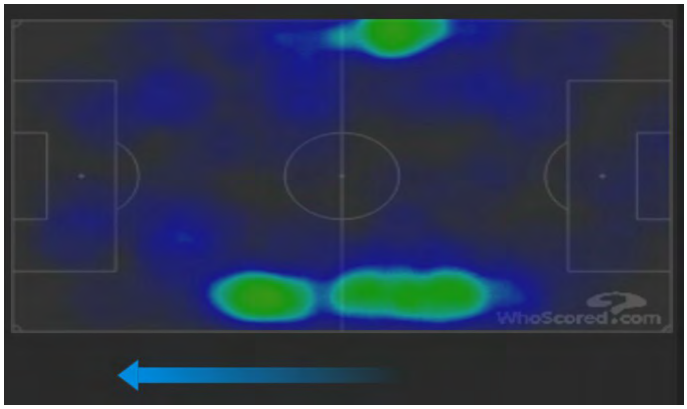
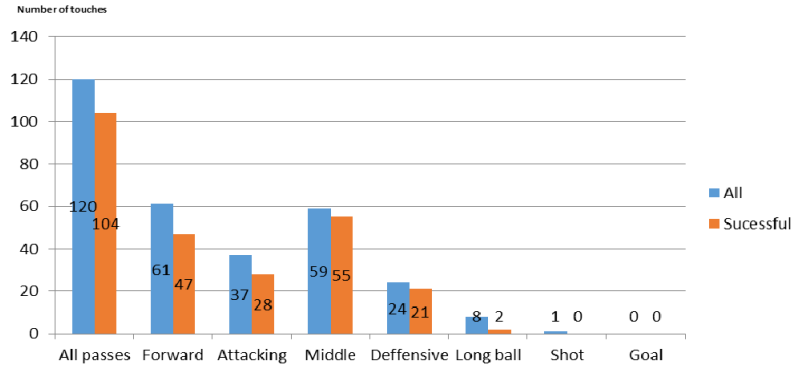


Figure 9. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985553/Live

We can see from the map that the players had their most active performance in the middle third. However, they were also involved in the game in the attacking third which resulted in two goals. The full-backs had 196 ball contacts, of which the left full-back can boast with 135 and the right full-back with 61 contacts. The left full-back played a significant role in this match both in terms of the number of passes and ball contacts. His important contribution to the attack goes without saying.

10. match

Real Madrid: Las Palmas 2015.10.31. Score: 3:1



Graph 10. Real Madrid wingback all passes

The match was completed with 120 passes, of which 51%, so 61 were forward passes. 47 forward passes were successful which equals to a pass accuracy of 77%. There were 37 passes in the attacking third, 59 in the middle third and 24 in the defensive third. This was the only match where the full-backs completed a goal pass.

Heatmap

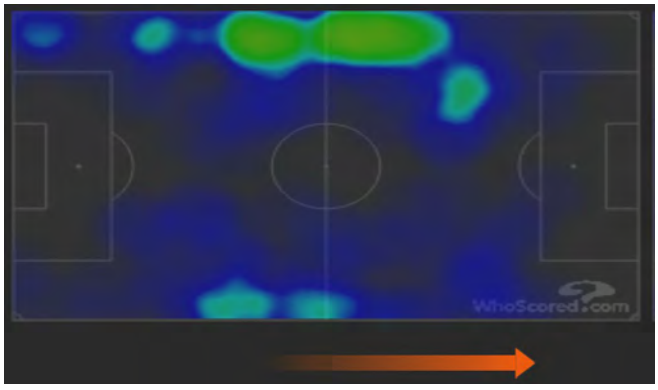
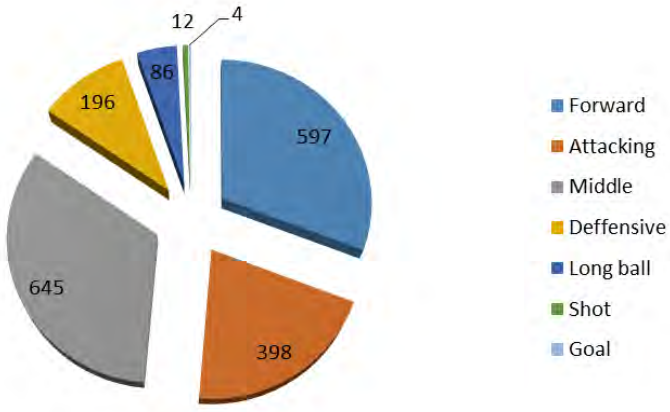


Figure 10. Real Madrid wingback heatmap
Reference: Heatmap (2016.april 2.).whoscored.com. retrieved from: https://www.whoscored.com/Matches/985526/Live

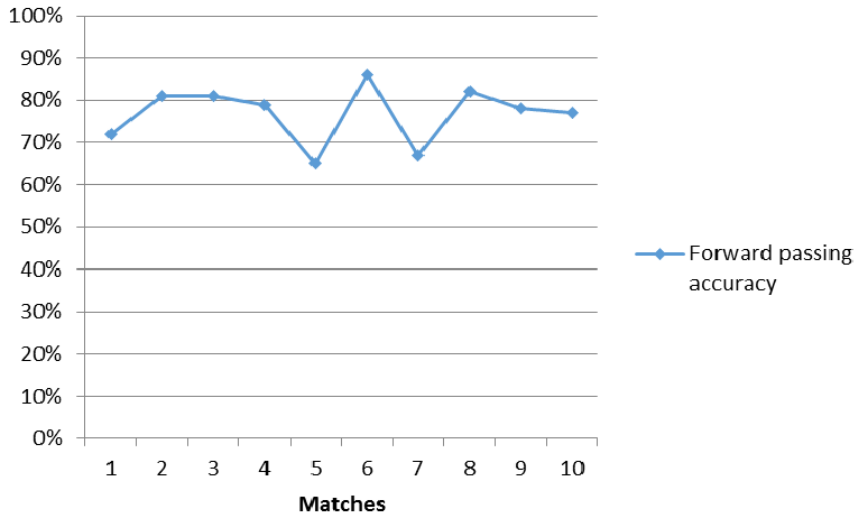
As well as in the other matches the left full-back was more active and it can also be seen on the map. He had 92 ball contacts whereas the right full-back 65, so the total number is 92. The full-backs had 196 ball contacts.

Conclusion

The aim of my study was to illustrate the important role that the full-backs play in the attacks. I did so on the basis of the number of passes and heatmaps. I analysed the passes completed by the full-backs and their direction. I also described the moves of the full-backs separately in each match. I used a graph and a heatmap for every match. 48.6% of all the passes were forward passes. It is an outstanding performance from the full-backs. The graph (graph 11) shows us the passes that took place in the matches. Based on this it can be said that most of them were forward passes. It is followed by the passes completed in the middle third and the least passes took place in the attacking third. There were 597 forward passes, of which 461 were successful resulting in a pass accuracy of 77%. This is an excellent result from the full-backs because it means that their passes were mostly accurate. Their forward passes had an accuracy of 65% which helped the team a lot when it came to attacking (graph 12). As shown on the maps the left full-back helped the attacks in most cases and was very active on the left side of the pitch. Altogether there were 1675 ball contacts, of which 957 were completed by the left full-back and 724 by the right full-back. The former had 57% of the ball contacts and the latter 43%. Based on this there is no doubt that the left full-back was more actively involved in the matches than the right full-back. The heatmaps also pointed out that most of the ball contacts occurred in the attacking third and middle third, thus helping the attacks.



Graph 11. Passing over the evolution of the test matches



Graph 12. Passing forward accuracy during the matches

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