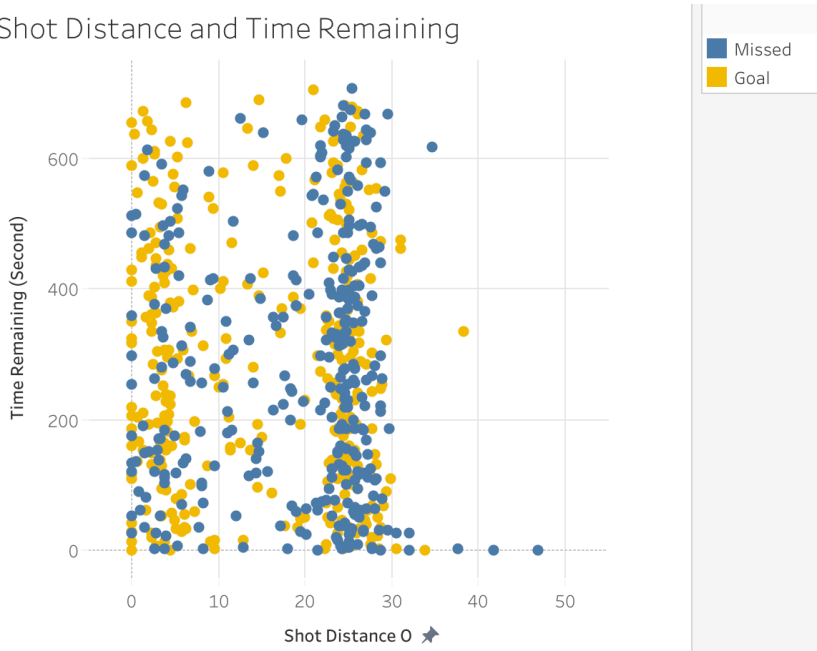


Stephen Curry's Shots in 2015

Exploratory Data Analysis

"The NBA's Greatest Shooter Hates Mid-Range Jump Shots" has been posted at <https://www.businessinsider.com/stephen-curry-shot-chart-2015-12>, and I started thinking if the title of article could be misled. Because 10-20 (mid range, 3-point line) shot distance is his most frequent area to shoot, and jump shot is the type he uses the most. The data set of Curry's performances in 2015 was able to be downloaded from #MakeOverMonday. A few graphs have been generated in different dimensions.

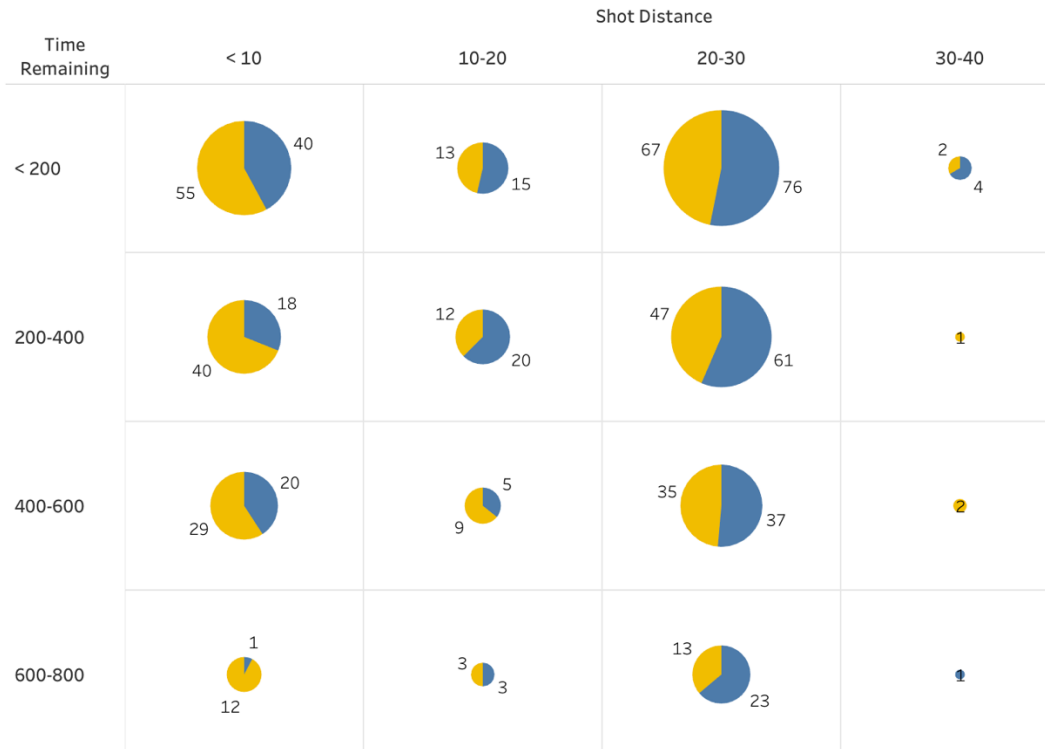
Shot Distance and Time Remaining



I started looking at his performance with Shot Distance and Time Remaining. Some of findings include:

- He mostly shoots in 20-30 distance.
- He misses more between 20-30 distance than other areas
- He doesn't shoot between 10-20 as much as 0-10 or 20-30

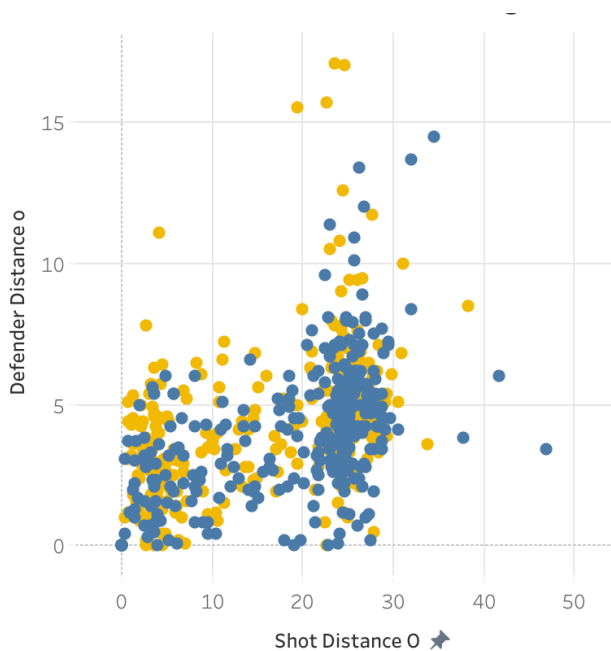
I see more yellow dots at 200-400 time window and 1-10 distance. Is that right?



I decided to make bins and ran pie charts to make sure what I have noticed from the scatter plots would be correct. It turned out that

- He shoots more when time is less than 200 left
- He has a greater rate of goals made when he shoots less than 10 distance and time is between 200-400. Yes!!
- Also, it confirms that he makes more goals in <10 distance compared to 20-30 distance

What about defenders' distance? Is that a big factor?

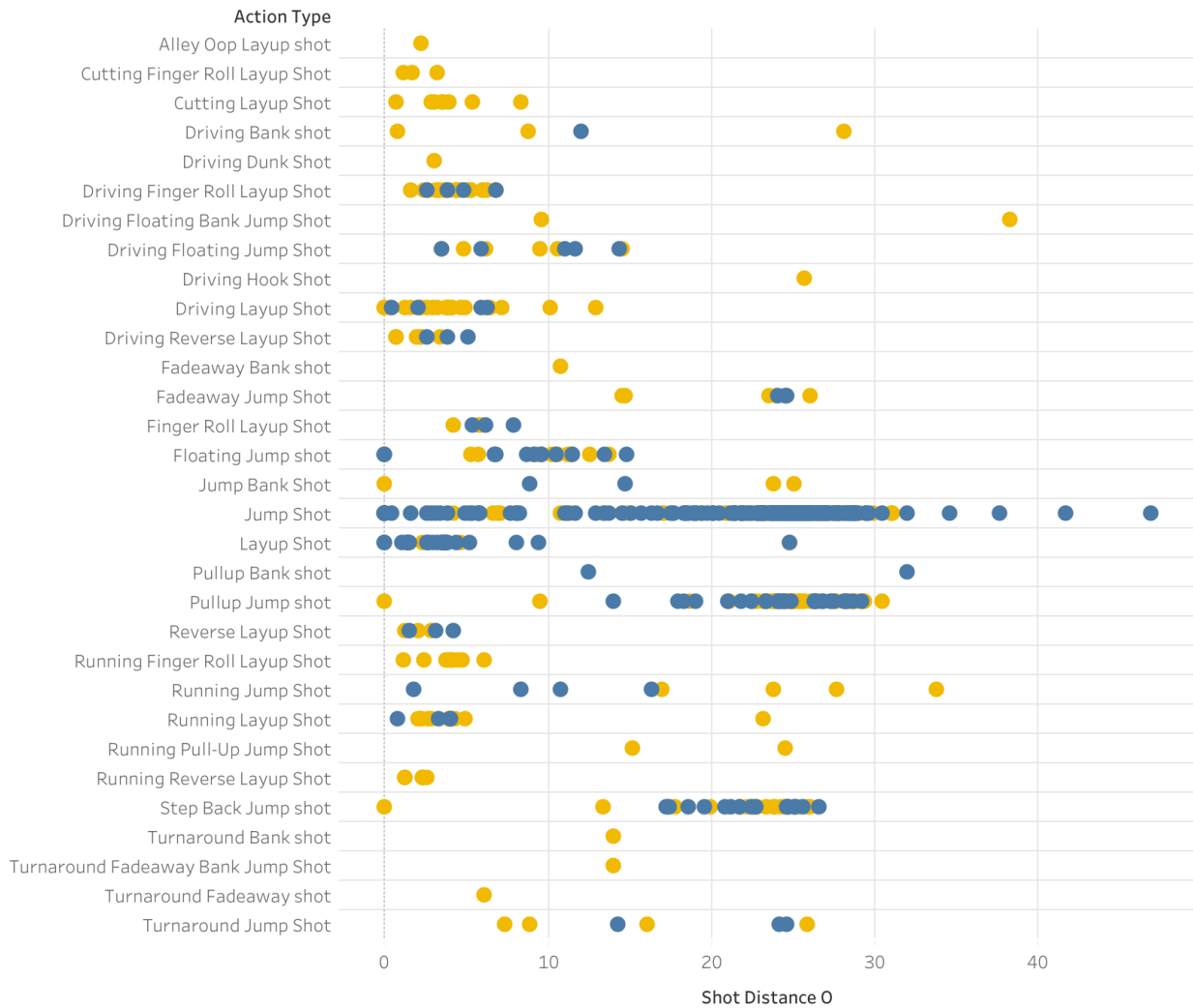


Definitely, defenders are closer to him when he shoots less than 10 away from the goal. What else is going on here?



- Best at the distance of 3-6 from defenders and <10 shot distance
- Looking at 20-30 shot distance, they are all worse than <10 shot distance. Interesting. The defenders' distance isn't a strong factor of 20-30 distance (3-point line) shot.

Then what's wrong when he shoots between 20-30? Let's look at the type.

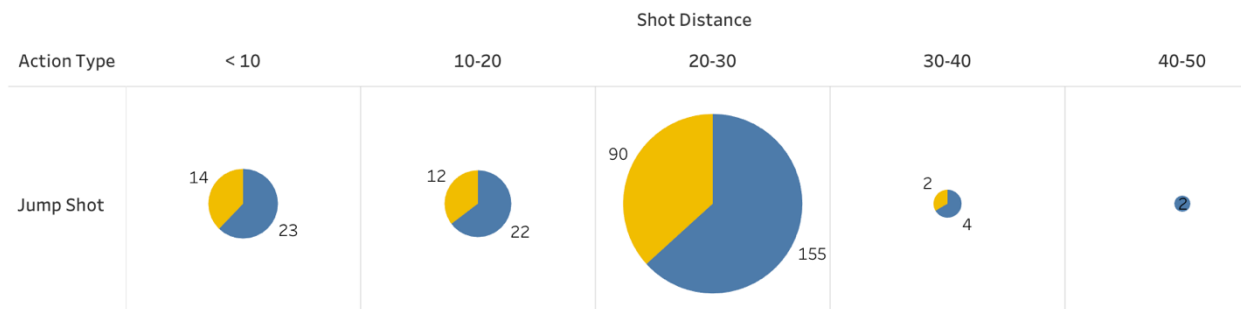


Wow. There are lots of things look interesting.

- He does a lot of jump shot regardless of shot distance
- He has a lower success rate in layup shot in less than 10 distance.
- Besides jump shots, he does pull up jump shot, step back jump shot often between 20-30 shot distance.

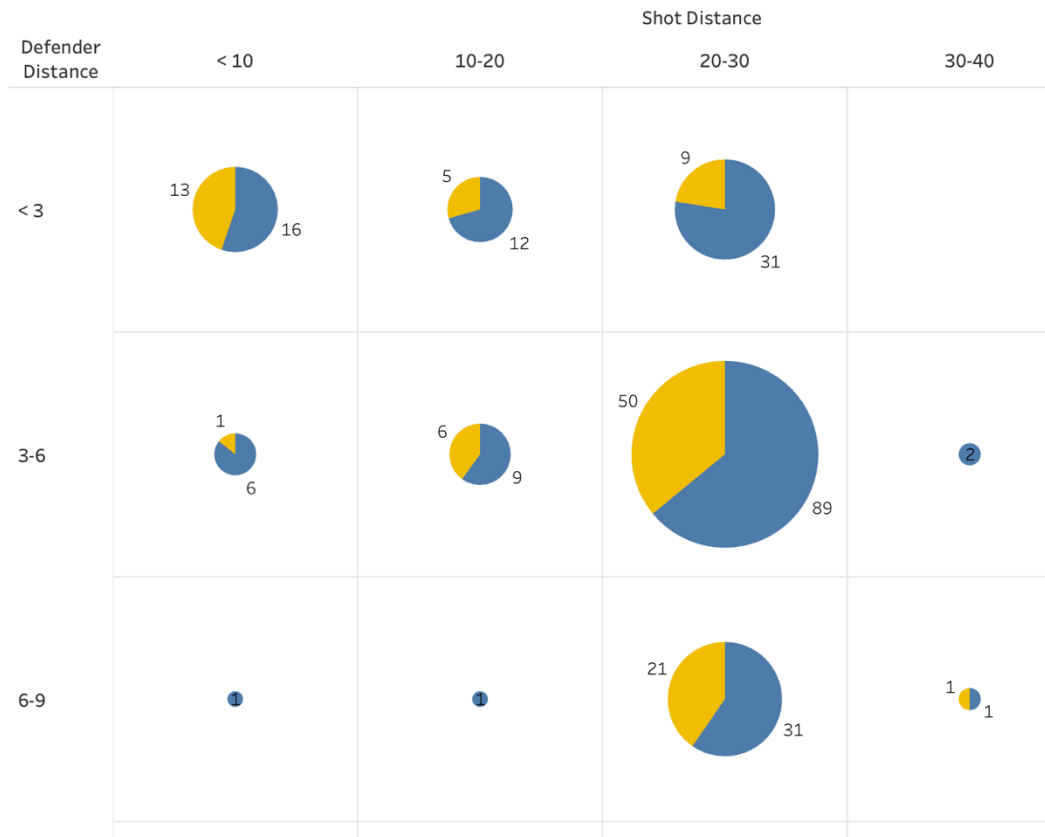
I want to look at jump shot more closely.

Jump Shot



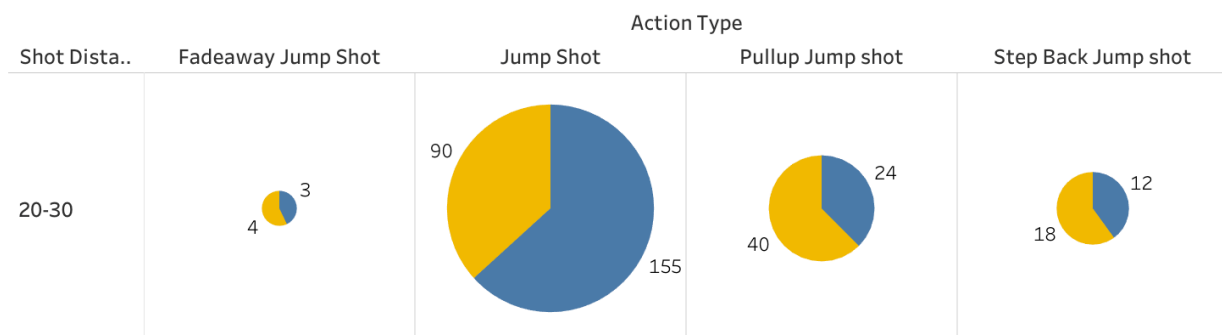
Look jump shot doesn't look good no matter where you shoot from.

Jump Shots



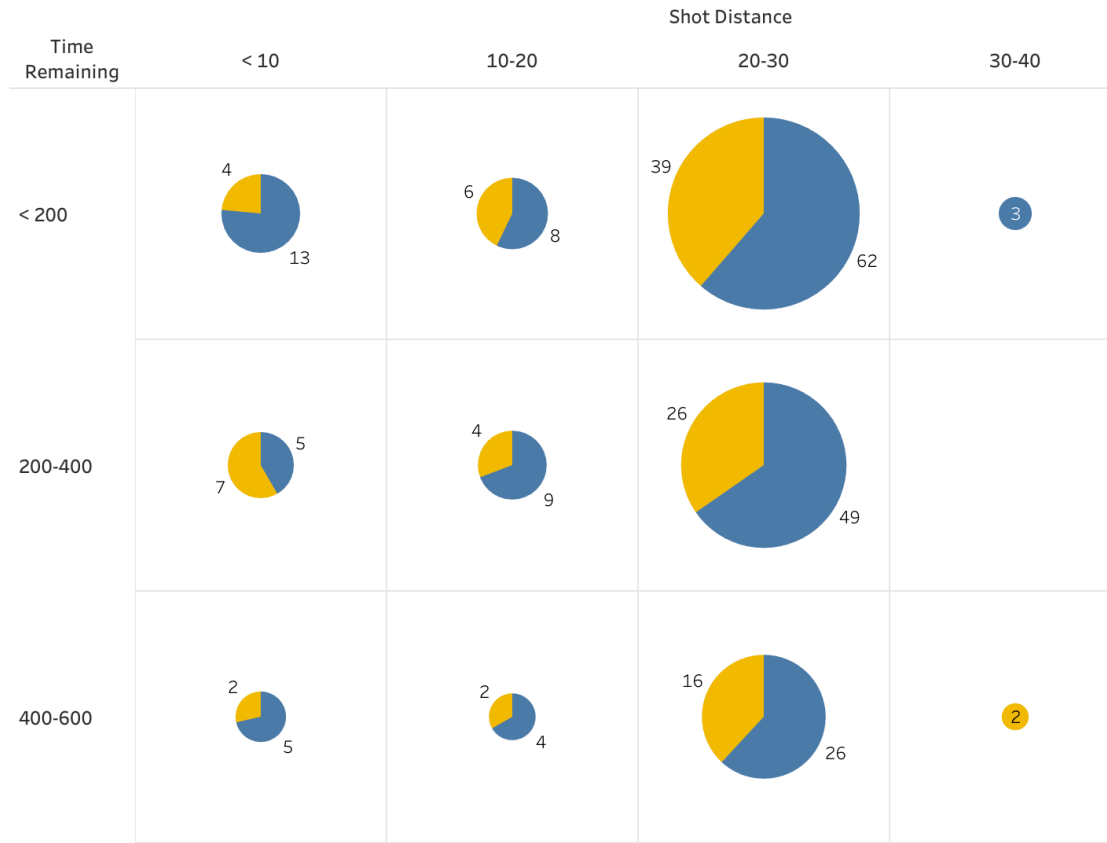
- It is bad when he shoots between 3-6 defender distance (worst) and <10, and between <3 defender's distance and 20-30 shot distance (second worst)

Major Shots in 20-30 Shot Distance



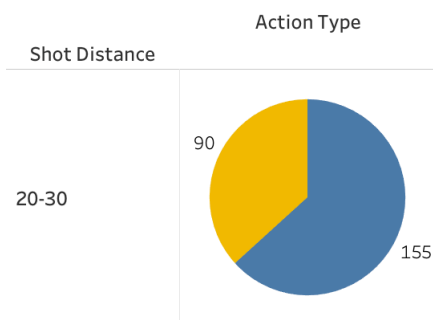
Looking at his popular shots in 20-30 shot distance, only jump shot has less than 50% rate.

Jump Shots

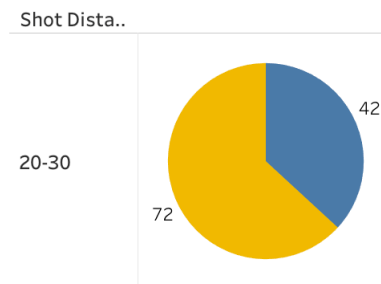


- Remaining time matters when you shoot <10 distance. But between 20-30 distance, time remaining doesn't matter. They are all less than 50% of success rate.

Jump shots in 20-30 Shot Distance

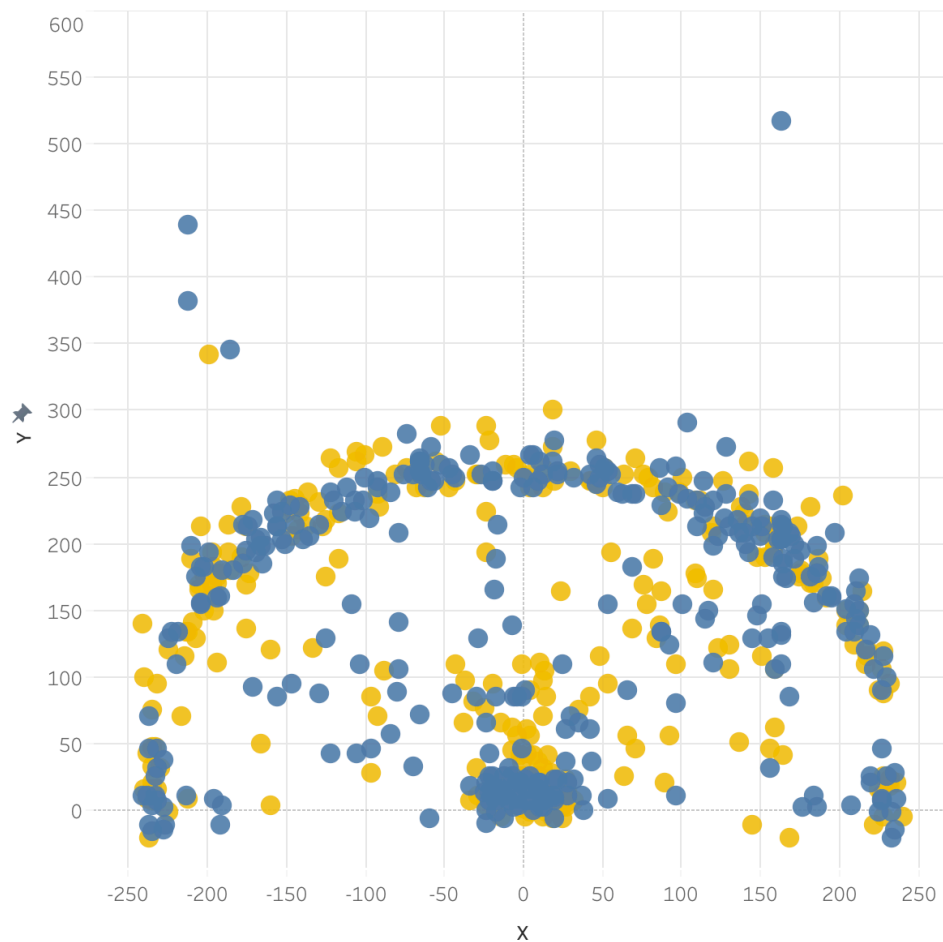


All other shots except jump shot in 20-30 Shot Distance



Shot Made Flag
■ Missed
■ Goal

- Near or on the arc (shot distance between 20-30), he would be better with other shots, instead of jump shot.



- He doesn't shoot much on the line of arc between 50-100 (Y)
- He shoots more on the right side of the court.
- The success rate inside the arc on the right side looks better than on the left side.

Takeaway

- He shoots mostly around 20-30 shot distance (near or on 3 point line), and has a lower success rate of shots if he tries in jump shot, but his jump shot is not only bad at 20-30 range, but also <10 and 10-20 range as well.
- He has a greater rate of goals made when time is remained between 200-400 seconds and he shoots less than 10 shot distance, but not further than 10.
- His performance is best at 3-6 defenders' distance and <10 shot distance
- He has a lower success rate in layup shot when he shoots from less than 10 shot distance.
- Near or on 3 point line, he would be better with other shots, instead of jump shot.