Pedri's Electrifying EURO 2020

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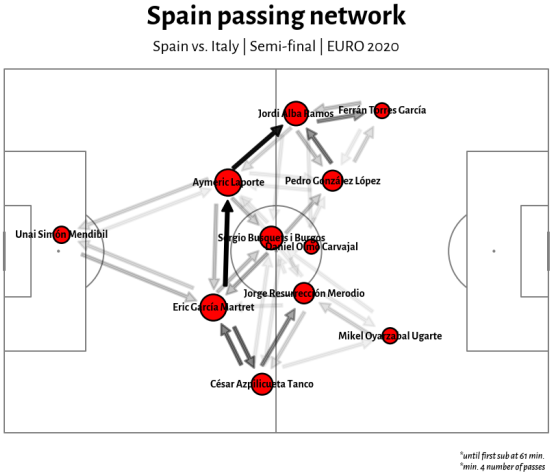
1 Introduction

Pedro González López, or Pedri, as he is better known, took world of football by storm in the European Championship 2020. He was an integral of a Spain squad that went all the way through to the semi-final, where they lost on penalties to Italy.
It was the ease of which he controlled the Spain midfield, not by his extraordinary personality, but the ease of his passing reminded my of football greatest in this discipline, Iniesta, Pirlo, Xavi among others. One of the most impressing things is that he did at the age of 18 years old, and at the end of a season where he played 3.525 minutes in all competitions, more than any other Barcelona player.
In this assignment I will investigate how essential Pedri was to the Spain squad in terms of his passing and chance creation.

2 Pedri connecting Spain

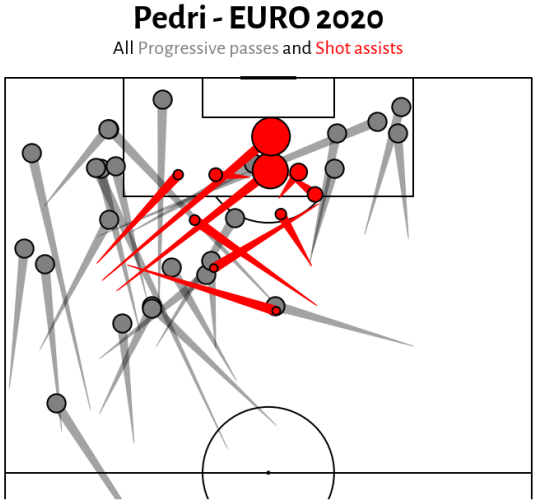
One of Pedri's contributions to the Spain squad was his ability to connect the midfield with the attack and open the opposition defence. The passing network from Spain's semifinal against Italy reveals how Pedri played in an advanced midfield position connecting the left side of the Spain attack with Ferran Torres and Jordi Alba. The node sizes illustrates that he was one of the attacking players with most passes and he had a great connection with Jordi Alba.
Centralization can be used to evaluate a passing network and highlight reliance on specific players, which can lead to worse team performance [1]. Spain has a centralisation index of 6.32% against Italy. This is much lower compared to this season Premier League teams, where Liverpool and Manchester City are around 10% and Manchester United and Arsenal are around 14% [3]. Centralisation can also be calculated on individual player level. The table to the right shows the betweenness centrality, how many times a player is needed to complete the shortest path between two other players, for each player [4]. It is clear that Busquets, Laporte and Pedri are important in connecting the Spain team against Italy.



Player	Centrality
Sergio Busquets	0.51
Pedri	0.48
Aymeric Laporte	0.47
Jordi Alba	0.30
César Azpilicueta	0.22
Koke	0.22
Unai Simón	0.19
Mikel Oyarzabal	0.18
Ferrán Torres	0.18
Eric García	0.18
Dani Olmo	0.18

3 Chance creation

Pedri was not only able to link the team together, but, as mentioned, he was also a threat to open the opposition team up and create chances. This is shown in his pass map of progressive passes (passes that move the ball 25% closer to goal) and shot assists (passes to directly leads to a shot).
Additionally, his ability to be involved in chance creating sequences is illustrated by his high xGChain. xGChain is the summed expected goals of the sequences the player was involved in [2]. The table shows that Pedri accumulated 10.6 xGChain across the tournament. This means that of the 13.9 xG Spain generated from open play Pedri was involved in sequences that led to 10.6 xG. From Pedri's the 10.6 xGChain was 0 accumulated from shots, whereas Morata accumulated 4.1 xG from shots. This shows how much Pedri is a creator than a finisher.
It is especially interesting to see difference between Pedri and Busquests and Laporte. Busquests had higher and Laporte almost identical betweenness centrality, but Pedri is far more involved in sequences that end in goal scoring chances, or chances with a higher probability of goal.



Player	xGChain
Pedri	10.6
Pablo Sarabia	9.3
Álvaro Borja Morata	8.4
Jordi Alba	8.1
Pau Torres	7.3
Dani Olmo	6.1
Marcos Llorente	4.8
Aymeric Laporte	4.6
Gerard Moreno	4.4
Koke	4.2
Mikel Oyarzabal	3.9
Sergio Busquets	3.6

4 Conclusion

Pedri's EURO 2020 was extremely impressing. This shown by his high centrality in a decentralised Spain team, which highlights how he connected the Spain team in the semifinal against Italy. The ability to open defences and be involved in chances is illustrated by his high xGChain.
The passing network and centralisation measures are based on a single game, so it would be interesting to see if Pedri was as involved in other games. Furthermore, comparing Pedri xGChain to other players in the tournament would be a next step.
The code for the assignment can be found on my Github profile.

References

[1] Thomas U. Grund. "Network structure and team performance: The case of English Premier League soccer teams". In: *Social Networks* 34.4 (2012), pp. 682–690. ISSN: 0378-8733. DOI: https://doi.org/10.1016/j.socnet.2012.08.004. URL: https://www.sciencedirect.com/science/article/pii/S0378873312000500.

[2] Thom Lawrence. *Introducing xgchain and xGBuildup*. July 2022. URL: https://statsbomb.com/articles/soccer/introducing-xgchain-and-xgbuildup/.

[3] David Sumpter. *Case study: Decentralised football*. 2022. URL: https://soccermatics.readthedocs.io/en/latest/lesson1/passnetworksExample.html.

[4] Piotr Wawrzynów. *Explaining my passing nets*. Aug. 2020. URL: https://wawrzynow.wordpress.com/2020/08/30/explaining-my-passing-nets/.