

A background image of a green soccer field with white lines. The lines are slightly blurred, suggesting a shallow depth of field or motion. The field is mostly green with some white patches where the lines are. The text is overlaid on the field.

# 2023 Women's World Cup

## A Tactical Analysis of Individual Risks on Team Performance

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# Overview

- This analysis seeks to identify if risks taken by individuals on the pitch correlate with team success throughout the World Cup.
  - Dribbles
  - Interceptions
- Data comes from StatsBomb github for open data
  - Competition: 2023 Women's World Cup
  - Matches: Group stage match data
  - Events: Dribbles and Interceptions event types

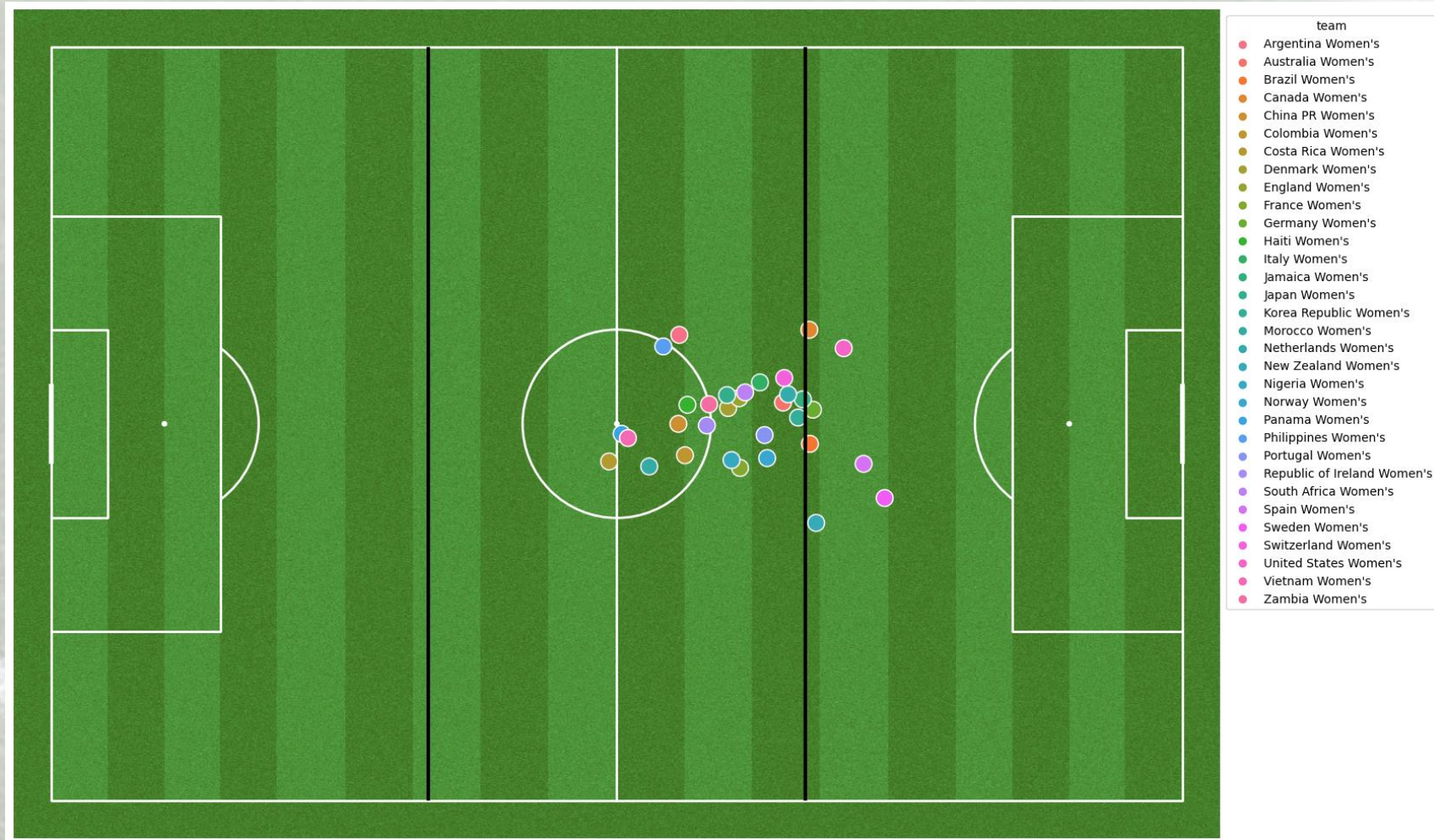


# Dribbles

- StatsBomb defines a dribble as an attempt by a player to beat an opponent
- 1,626 total attempted dribbles in the 48 group stage matches
- Does dribble success rate correlate with goal differential?
  - What about success rate in different areas of the pitch?
- Does average location of attempted dribbles correlate with goal differential?

Dribble Outcome	Definition	Classification
Complete	Dribble attempt was successful	Success
Incomplete	Player was unable to complete the act of attempting a dribble	Failure

# Average Location for Attempted Dribbles by Team for the Group Stage



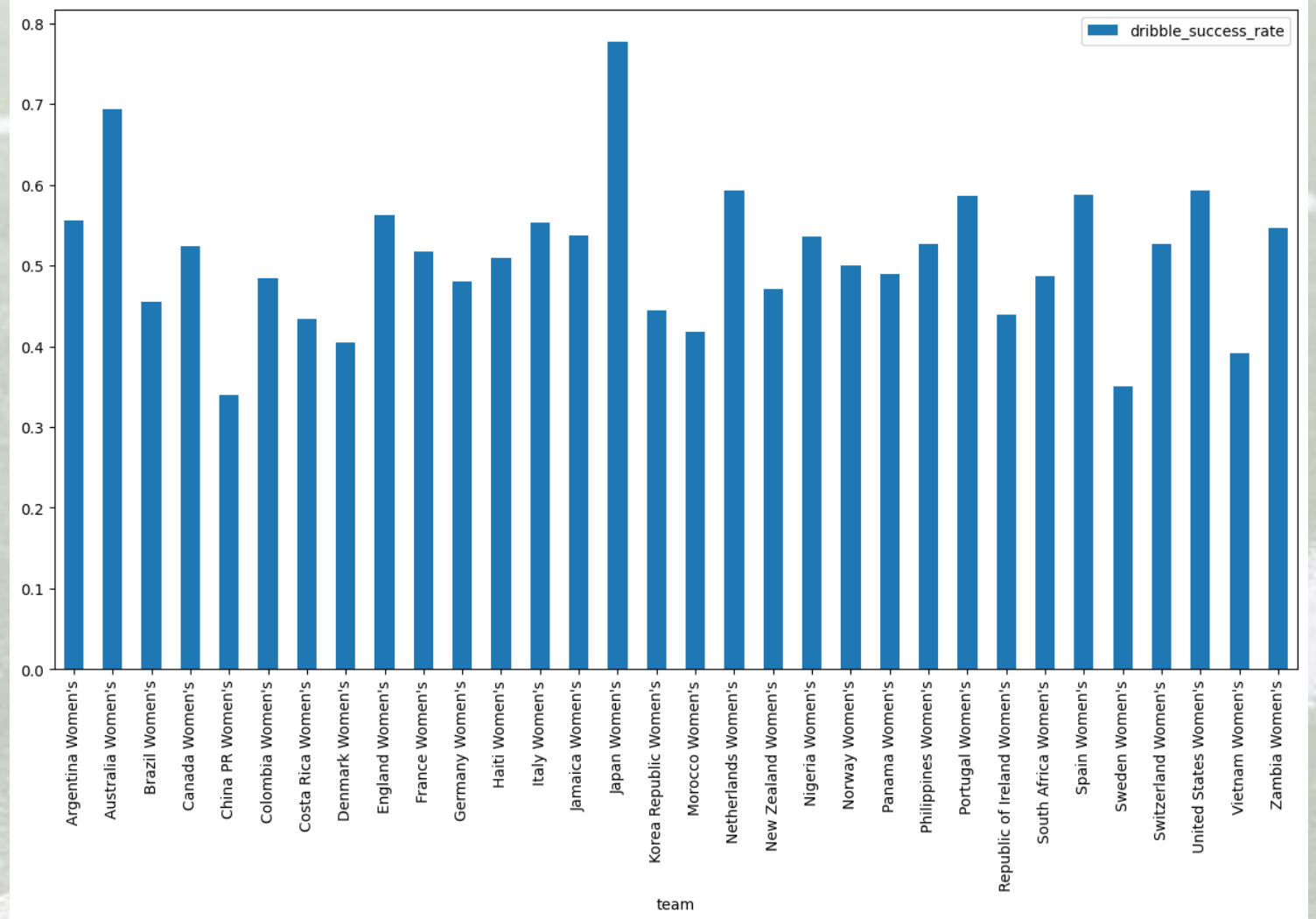


Japan had the highest dribble success rate during the group stage

- 28 completed in 36 attempts
- 77.78% Success Rate
- Goal differential of +11
- Advanced the QF of the WC

China had the lowest dribble success rate during the group stage

- 16 completed in 47 attempts
- 34.04% Success Rate
- Goal differential of -5
- Failed to advance past group play





The image on the right shows a map of attempted dribbles by team Japan during the group stage

#### Attacking Third

Attempted: 12

Completed: 10

Rate: 83.33%

#### Neutral Third

Attempted: 20

Completed: 16

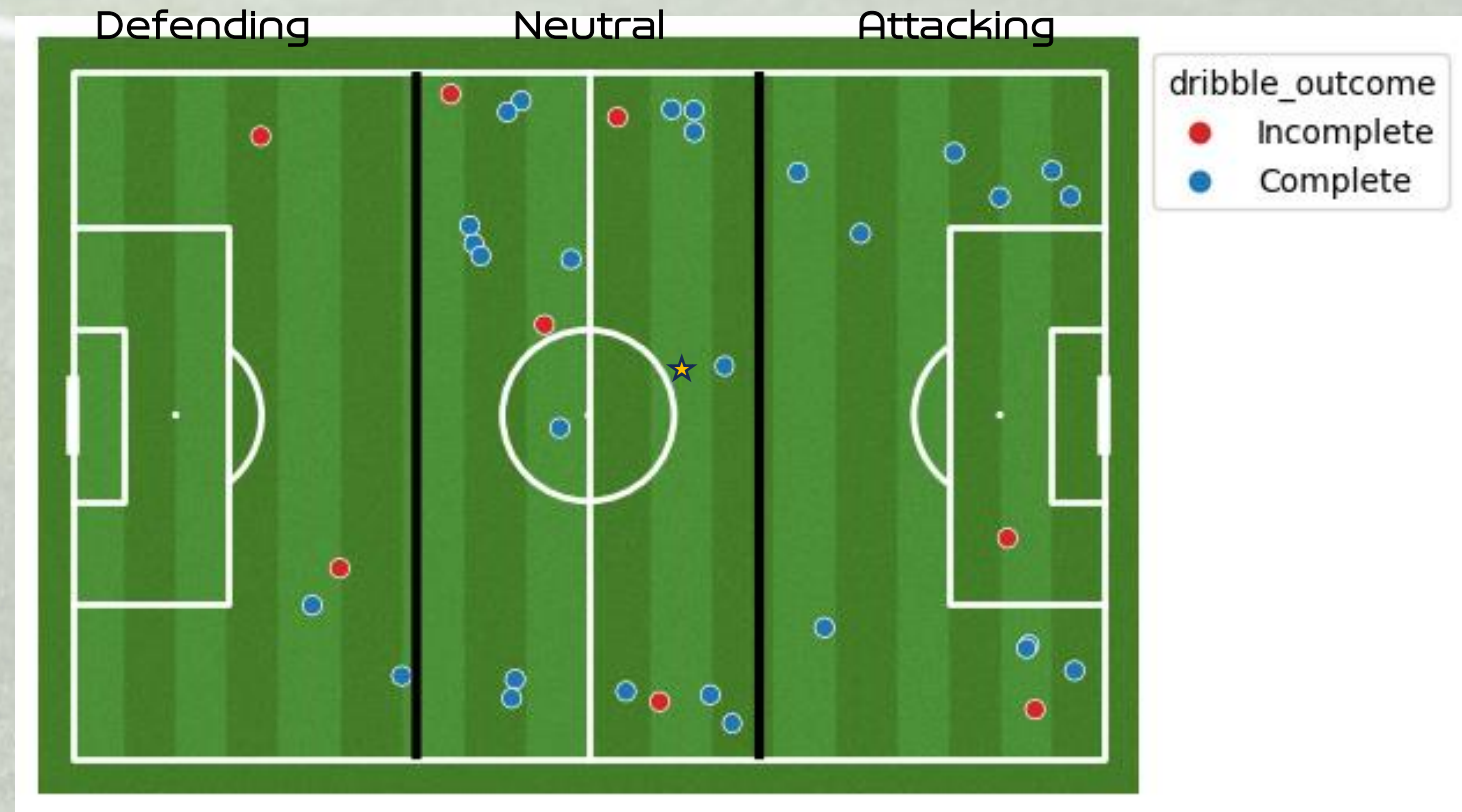
Rate: 80.00%

#### Defending Third

Attempted: 4

Completed: 2

Rate: 50.00%



★ Japan had an average dribble position of (71.69, 36.95)



The image on the right shows a map of attempted dribbles by team China during the group stage

#### Attacking Third

Attempted: 16

Completed: 6

Rate: 37.50 %

#### Neutral Third

Attempted: 19

Completed: 5

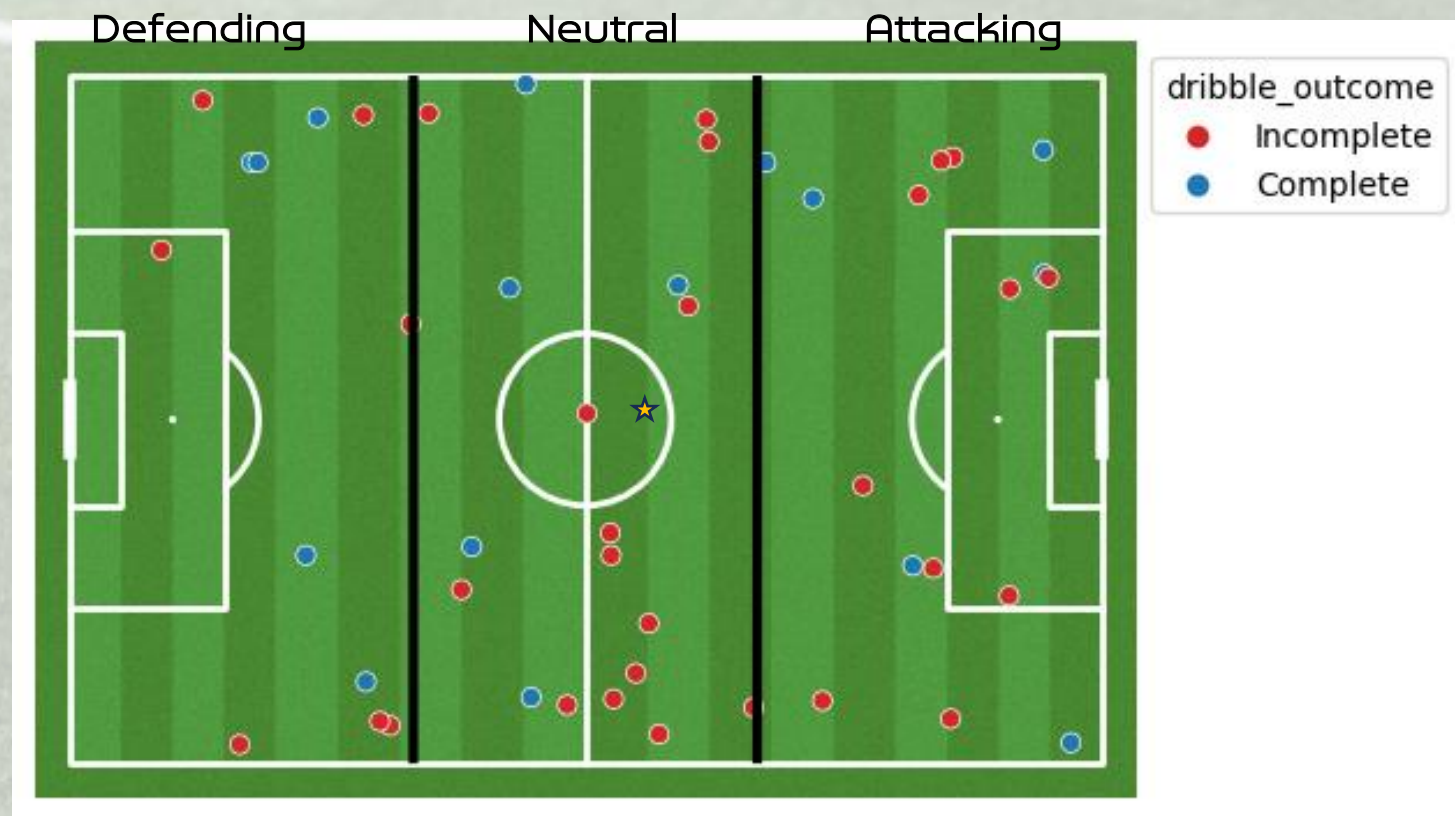
Rate: 26.32 %

#### Defending Third

Attempted: 12

Completed: 5

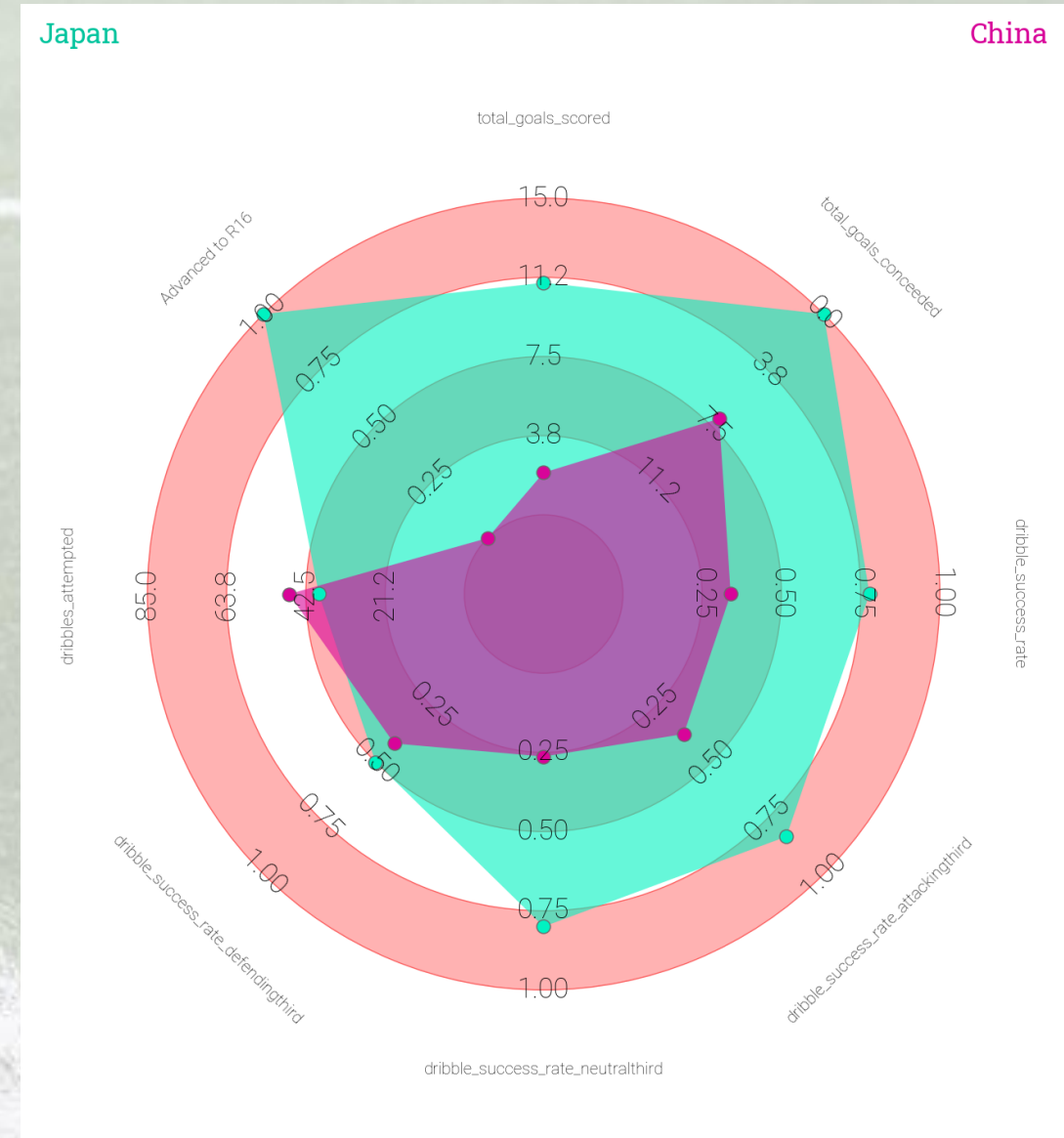
Rate: 41.67 %



★ China had an average dribble position of (66.53, 40.01)



- China attempted more dribbles, but Japan was more successful in executing them
- A major difference between the two teams comes in the neutral third of the field
- Tactically, Japan was more selective in taking risks with attempted dribbles further up the field
  - Corresponded with more goals and a better goal differential
  - Success could be a result of risk analysis – players having good judgement for when taking on a player is likely to benefit the team



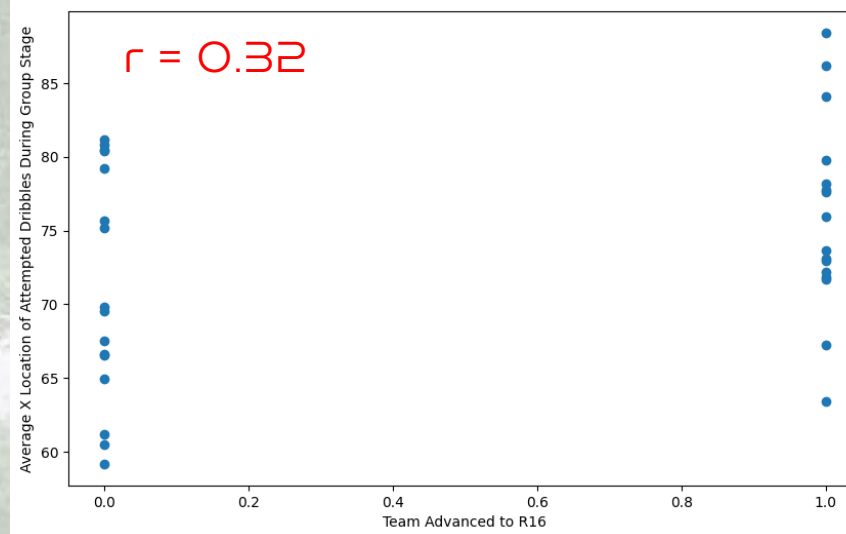
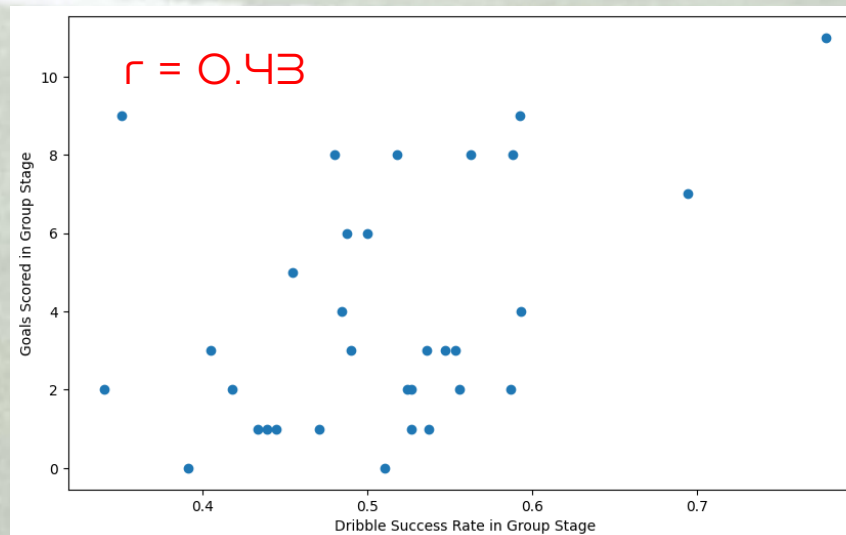
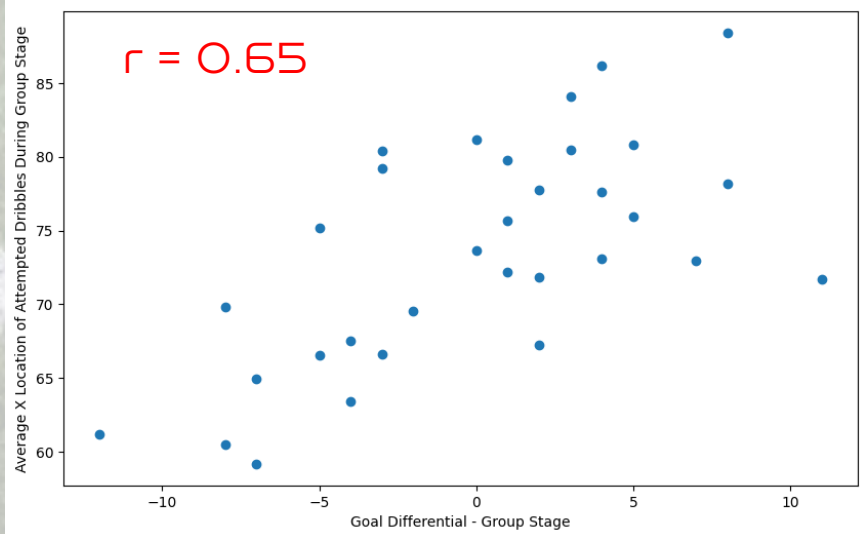
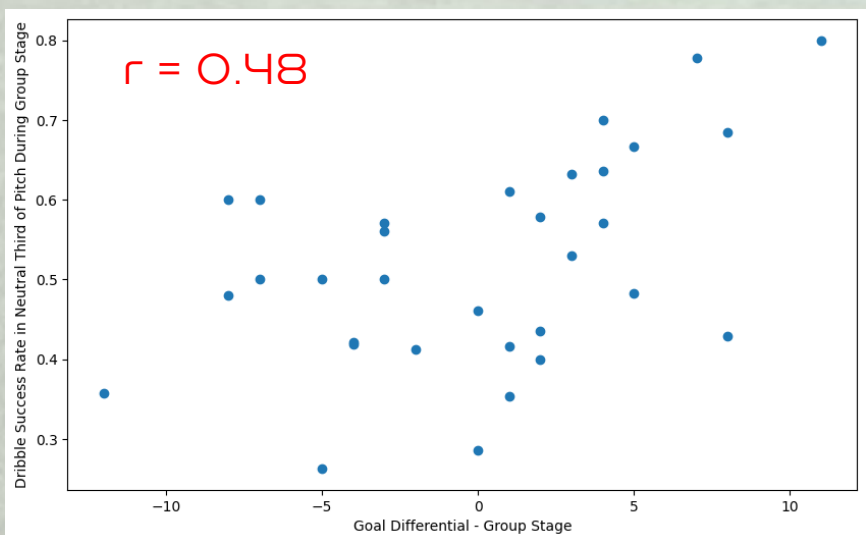


# Impact of Average Dribble Location

Team Distinction	Avg Goals For	Avg Goals Against	# of teams to R16	# of teams to QF	# of teams to SF	# of teams to Final
Avg X location for dribble attempts above mean	4.64	1.93	8	4	3	1
Avg X location for dribble attempts below mean	3.39	5.50	8	4	1	1

- Teams that had an average dribble attempt location above the mean for all teams scored more goals and gave up fewer goals, on average
- There was not a strong distinction for likelihood of advancement to further rounds based on the average dribble attempt location

# Statistical Analysis



- A moderately high correlation exists between goal differential in the group stage and the average x location of dribbles attempted during the group stage
- Teams that had a higher dribble success rate were more likely to make it past the group stage (to R16)
- Good decision-making with dribbles in the neutral third often led to better goal differential for teams in the group stage

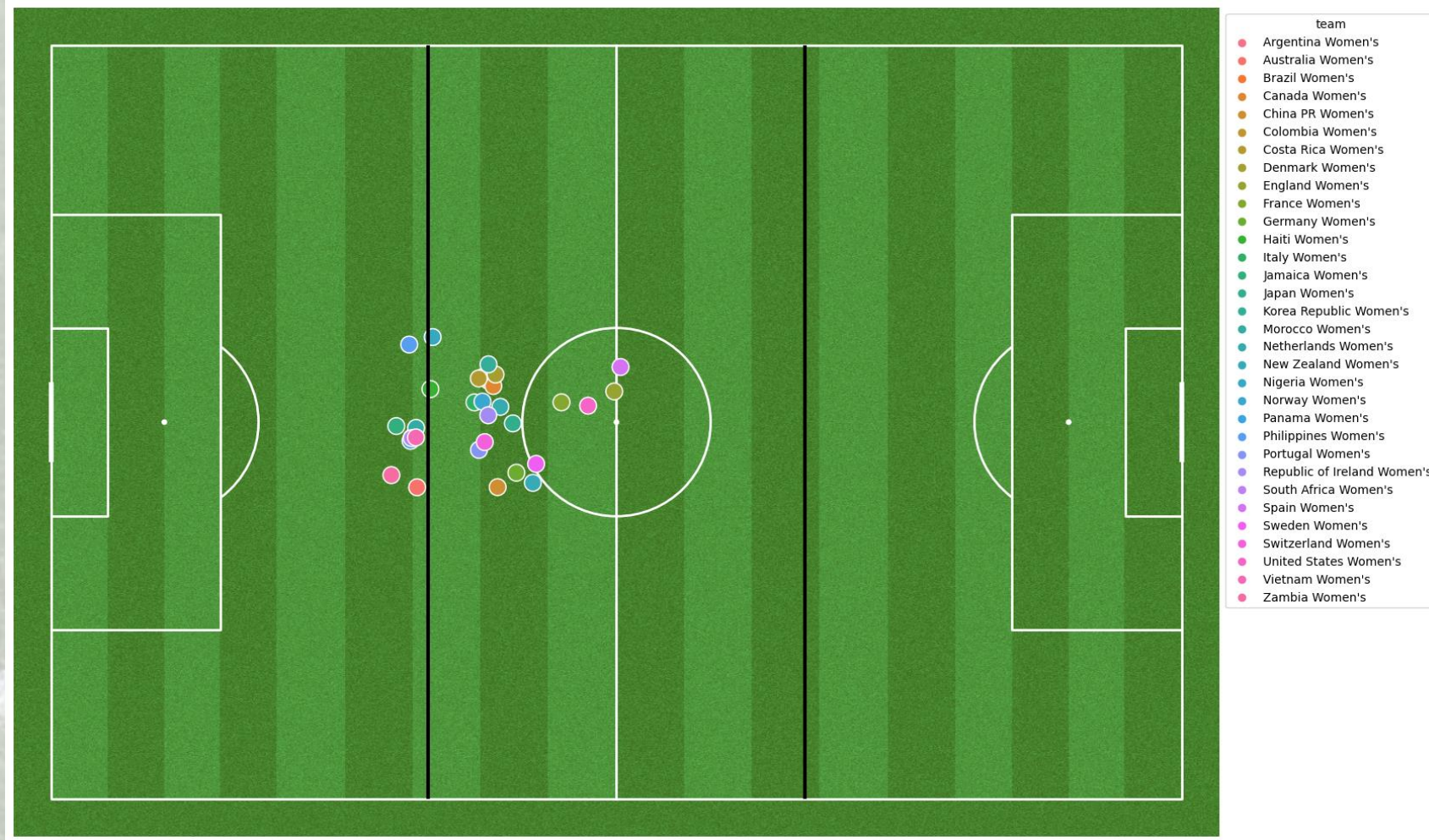


# Interceptions

- StatsBomb defines an interception as the act of preventing an opponent's pass from reaching their teammates by moving to the passing lane/reacting to intercept the ball
- 1,013 total attempted interceptions in the 48 group stage matches

Interception Outcome	Definition	Classification
Won	attempt that ended up in possession of the tackler	Success
Success In Play	attempt that knocked the ball to a teammate	Success
Success Out	attempt that knocked the ball out of play in favor of the tackling team	Success
Lost In Play	interception attempt that knocked the ball to an opponent	Failure
Lost Out	interception attempt that knocked the ball out of play in favor of the opposition	Failure

# Average Location for Attempted Interceptions by Team for the Group Stage



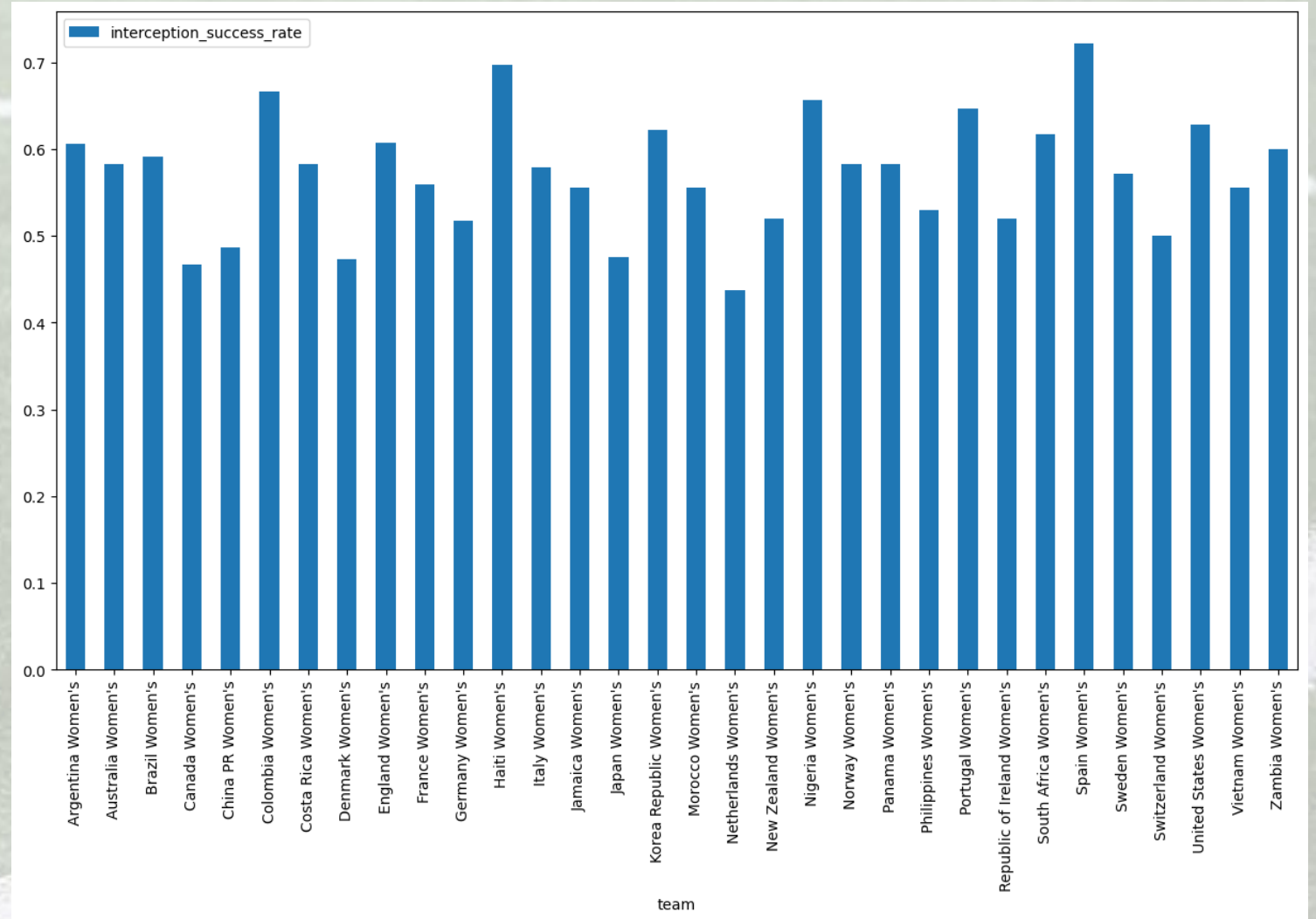


## Spain had the highest interception success rate during the group stage

- 13 completed in 18 attempts
- 72.22% Success Rate
- Goal differential of +4
- Advanced the Final of the WC and won

## Netherlands had the lowest interception success rate during the group stage

- 14 completed in 32 attempts
- 43.75% Success Rate
- Goal differential of +8
- Advanced to QF of the WC



\* Unlike dribble success rate, interception success rate does not appear to influence team performance



The image on the right shows a map of attempted interceptions by team Spain during the group stage

### Attacking Third

Attempted: 3

Completed: 1

Rate: 33.33%

### Neutral Third

Attempted: 11

Completed: 10

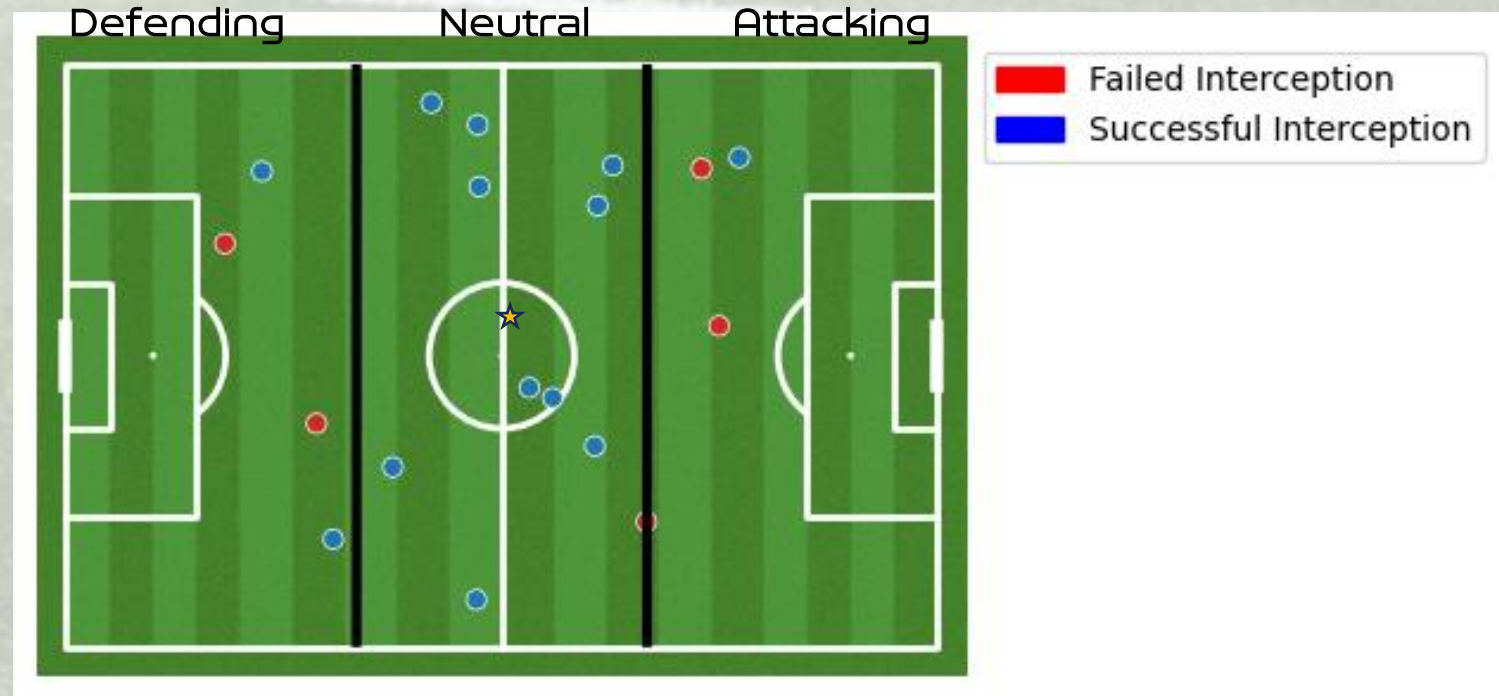
Rate: 90.91%

### Defending Third

Attempted: 4

Completed: 2

Rate: 50.00%



★ Spain had an average interception position of (60.43, 34.15)





The image on the right shows a map of attempted interceptions by team Netherlands during the group stage

### Attacking Third

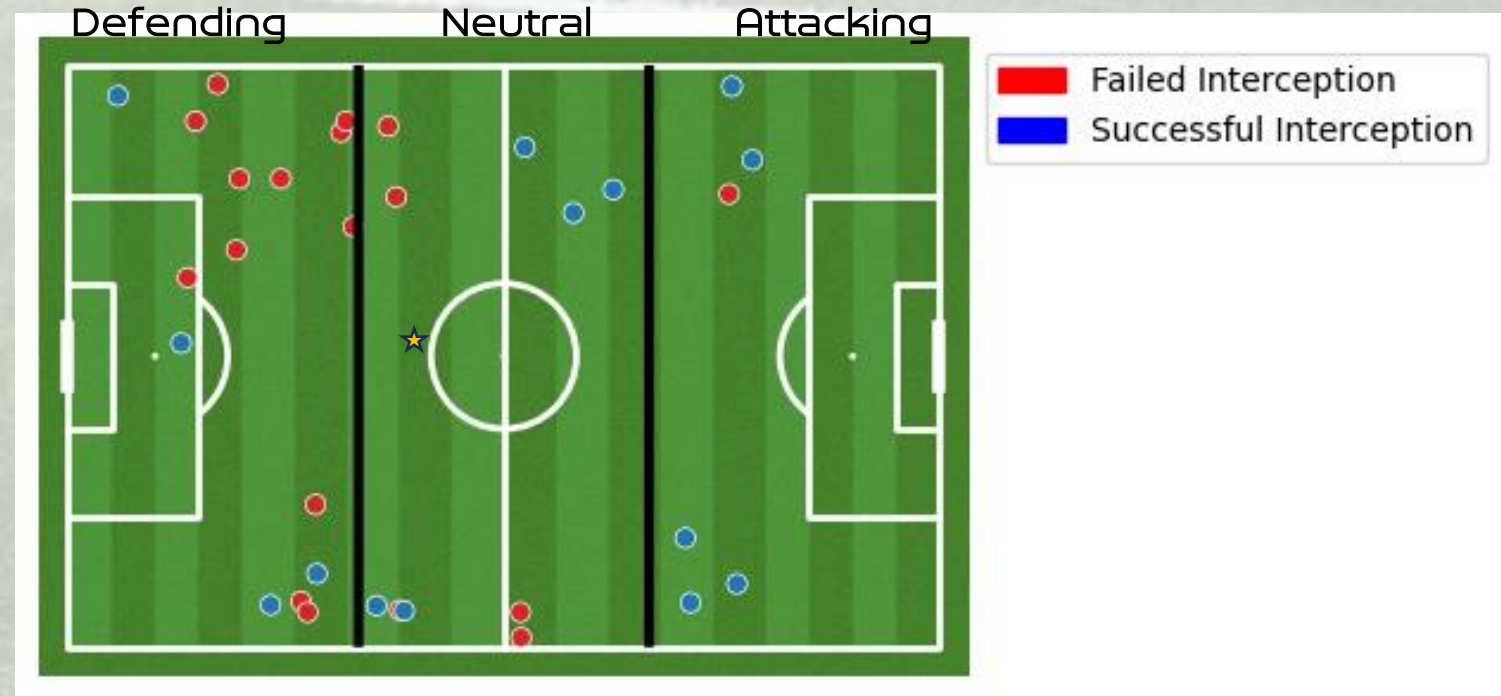
Attempted: 6  
Completed: 5  
Rate: 83.33%

### Neutral Third

Attempted: 10  
Completed: 5  
Rate: 50.00%

### Defending Third

Attempted: 16  
Completed: 4  
Rate: 25.00%



★ Netherlands had an average interception position of (47.67, 38.38)

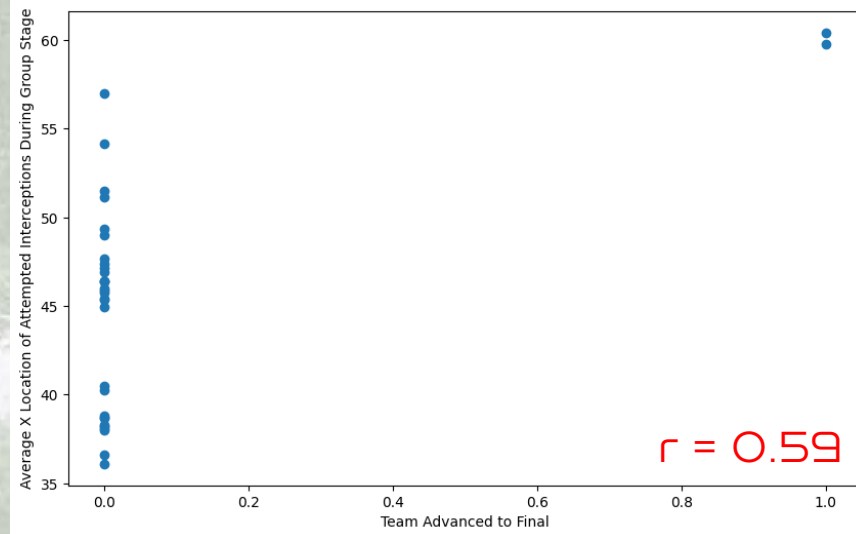
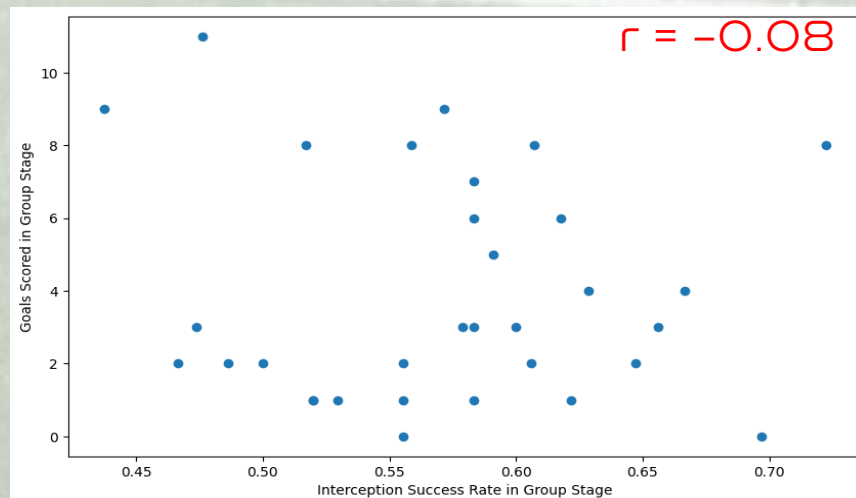
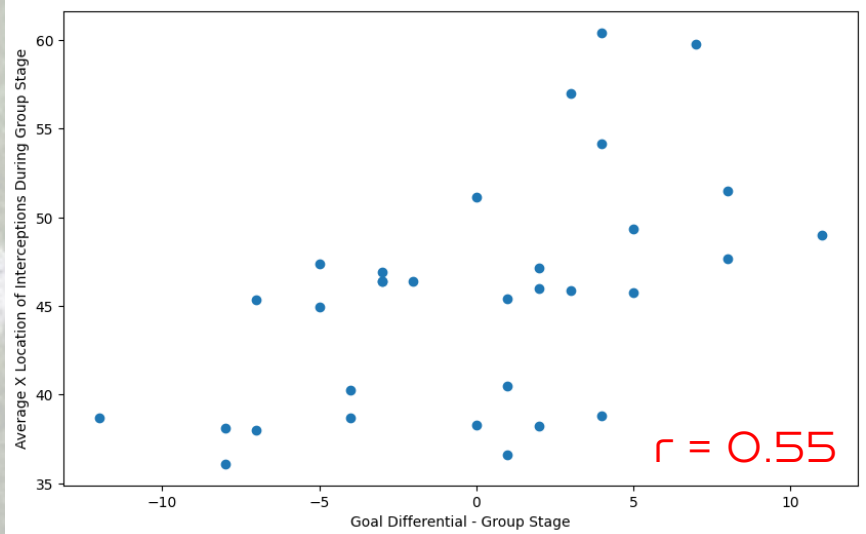
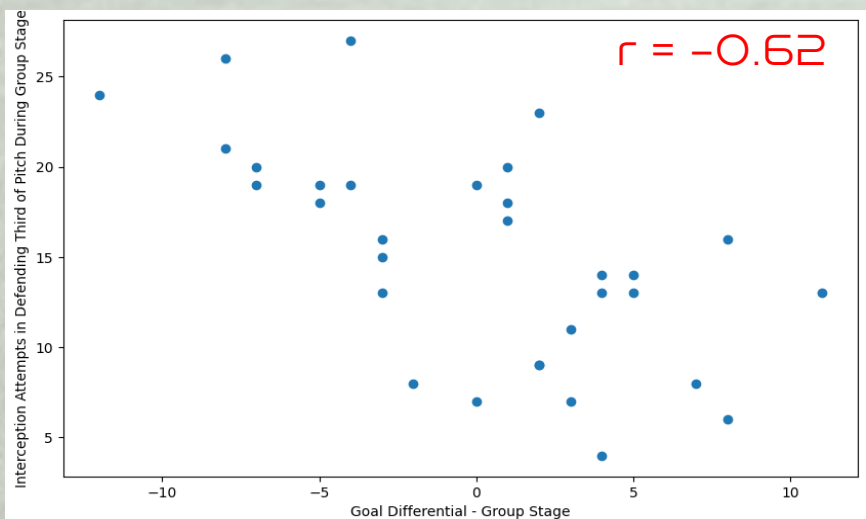
# Impact of Average Interception Location

Team Distinction	Avg Goals For	Avg Goals Against	# of teams to R16	# of teams to QF	# of teams to SF	# of teams to Final
Avg X location for interception attempts above mean	5.00	2.44	10	6	3	2
Avg X location for interception attempts below mean	2.57	5.86	6	2	1	0

- Teams that had an average interception attempt location above the mean for all teams scored more goals and gave up fewer goals, on average
- Teams that had an average interception attempt location above the mean for all teams were more likely to advance further in the tournament



# Statistical Analysis



- A moderately high correlation exists between goal differential in the group stage and the average x location of interceptions attempted during the group stage
- Teams that had a higher interception success rate were more likely to make it past the group stage (to R16), and a high correlation existed for making it to the final
- Strong negative correlation between interception attempts in defending third of pitch and goal differential
- No correlation between interception success rate and goals scored or goal differential

# Summary of Insights

- This analysis sought to identify if dribbles and interception statistics had a strong correlation with team success in the 2023 Women's World Cup
- Evidence suggests that dribble success rate, average location of dribble attempts, and average location of interception attempts are most strongly correlated with goal differential
- The average location of interception attempts was the most significant indicator for which teams were likely to advance in the tournament



# Application to Other Events/Leagues

## Adjust Defensive Tactics to Strategically Emphasize Interceptions Higher on the Pitch

- Interception attempts higher up on the pitch are more likely to result in a higher goal differential and advancement to later rounds; therefore, pressing in the attacking and neutral thirds should be encouraged.
- Interception success rate does not seem to correlate with success, so frequent interception attempts should be encouraged
- This may involve instructing defenders to focus on intercepting the ball in specific zones to not only prevent goals but also contribute to offensive opportunities.

## Consideration of Dribble Attempt Location and Optimization of Dribble Strategies

- Teams should emphasize good decision-making for players attempting dribbles. Having a high dribble success rate, especially in the neutral third of the pitch, is correlated with a better goal differential.

## Player Positioning and Training

- Consider training sessions that specifically address interception techniques and dribble strategies in the identified key locations. This targeted training can enhance players' decision-making and execution during critical match situations.