VALUING OFF-BALL RUNS IN IMPROVING DRIBBLING SUCCESS

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Contrasting Views of Dribbling

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QUOTE #1

“Today, without players who dribble, nothing can be done. Attacking a team that is stuck in its own goal, without players who dribble, who do not get you superiority with moves into spaces, is impossible”

QUOTE #2

“If I play with one or two touches within a second or two to you, you know exactly what will happen. It’s communication. It’s talking. If a player runs and dribbles with the ball all the time, no one knows what will happen”

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Jon Dahl Tomasson

Dribbling as a Team Action

- Dribbling often considered solely an individual action
- Yet, dribbling occurs within a dynamic game

What if there is more to dribbling success than individual skill?

Off-Ball Runs and Dribbling Outcomes

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Research Questions

1. How do individual off-ball runs impact dribbling success?
2. How are dribbling outcomes impacted by the collective off-ball movement of teammates?

Dribbling Success = Ball Retention or Ball Progression (Yes/No)

Question #1 - Individual Off-Ball Runs

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1 Data

Data from 266 matches:

- 2024 NWSL Season
- 2024/2025 WSL Season

2a Dribbles

Identify dribbling events:

- N = 11,463
- Coded as Yes/No for ball progression & retention

2b Off-Ball Runs

Extracted using timestamps:

- Type of run (10)
- Possession Phase (6)
- Channel (5)
- Channel Difference (5)

3 Analyses

Generalized Mixed Models (GLMM) to test for off-ball run main effects on ball **progression** & **retention**

Pairwise comparisons using Tukey Kramer

Interactions not included due to low sample sizes

Question 1: Results

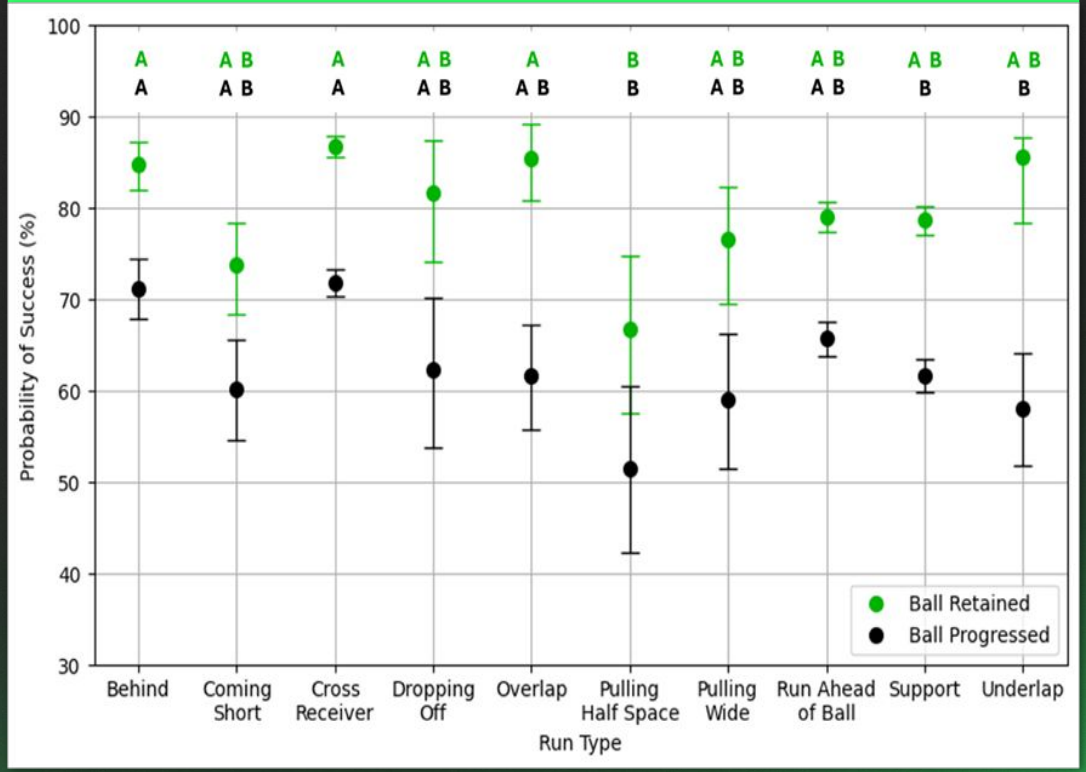
Ball Retention
Possession Phase ($p<0.0001$), Run Type ($p=0.0001$), Run Channel ($p=0.0248$)

Ball Progression
Possession Phase ($p<0.0001$), Run Type ($p<0.0001$), Channel Difference ($p=0.0007$)

Examples

- 2.8 greater odds of ball retention with a ‘Cross Receiver’ run vs. ‘Pulling Half Space’ run
- Runs in the same or adjacent channel to the dribble led to significantly lower odds of ball progression than runs two or three channels away

Dribble Success vs. Off Ball Run Type



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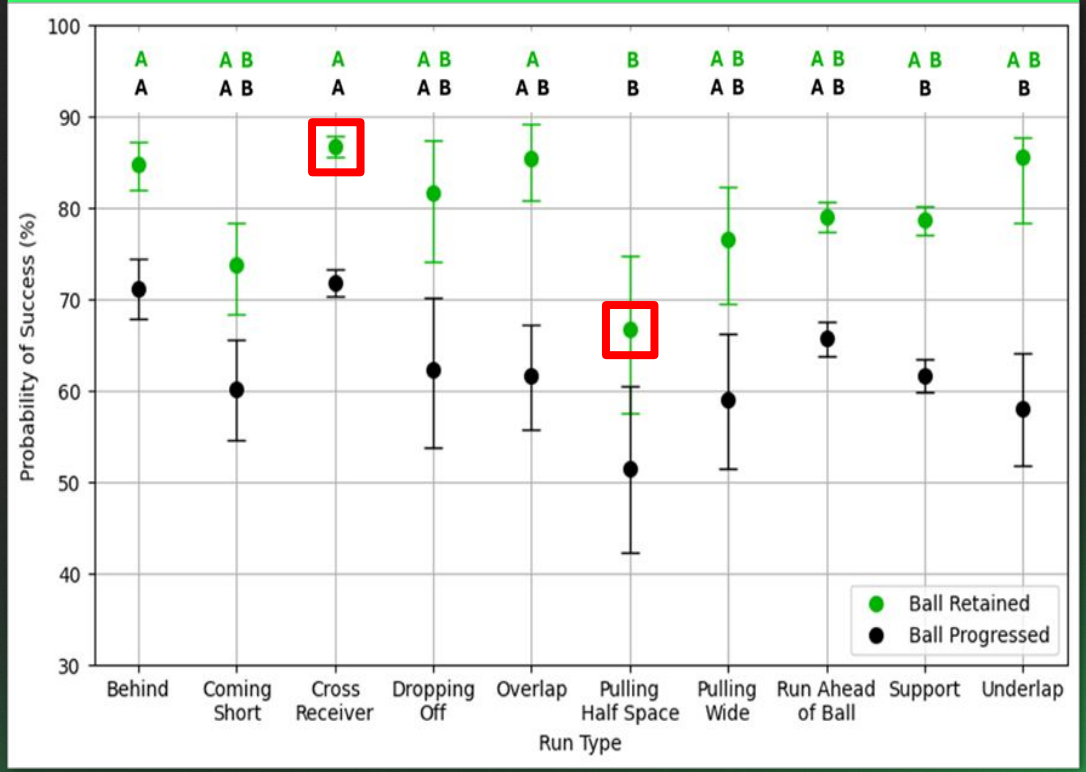

Question #2 - Team Movement

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1 Data

Data from 266 matches:

- 2024 NWSL Season
- 2024/2025 WSL Season

2a No. of runs during a dribble

Relationship between the number of runs during dribbling event and progression or retention (Y/N)

2b Collective team movement

Described team movement patterns usings K-means clustering based on 10,613 dribbling sequences

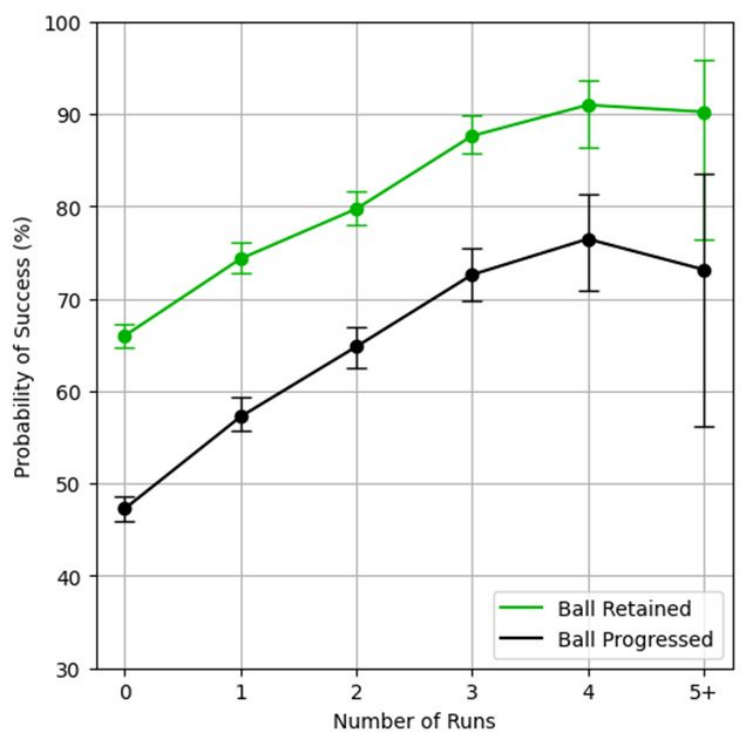
3 Analyses

Generalized Mixed Models (GLMM) to test for off-ball run main effects on ball **progression** & **retention**

Unbalanced data and low sample sizes prevented more complex models which accounted for phase of play, channel, and other potential covariates and interactions

Question 2: Results

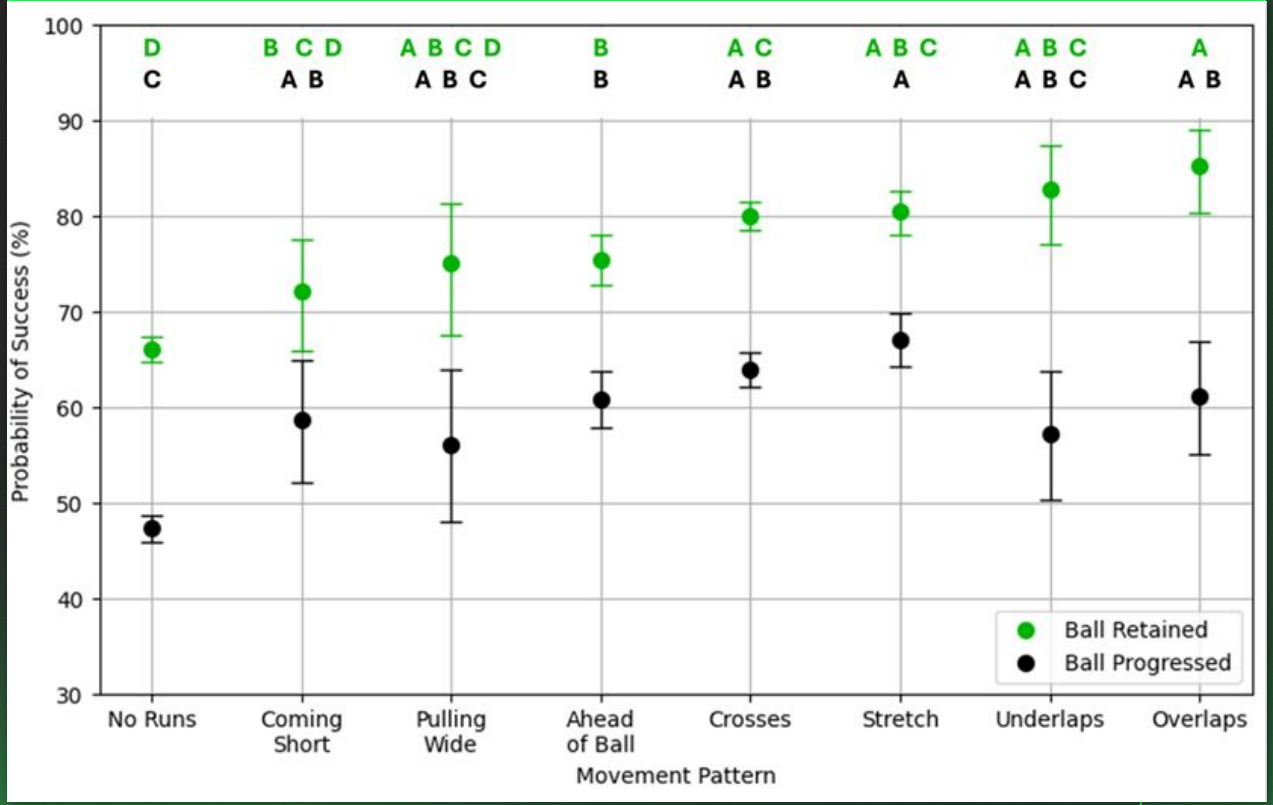
Dribble Success vs. Number of Off Ball Runs



- Dribbling success increases with increasing number of concurrent off-ball runs ($p < 0.0001$)
- Positive effects accrue up to four off-ball runs
- Limitation: Did not consider other factors such (e.g. possession phase, location on the field) or interactions

Question 2: Results

Dribble Success vs. Movement Pattern



- K means clustering identified 13 patterns, 8 with sufficient sample size for analysis
- Clear differences in success among movement patterns
- Interpretations of pairwise comparisons difficult
- Analysis did not account for other key factors which may clarify relationships

Conclusion

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1 Dribbling outcomes

- Affected by offball runs & **team movement**
- All players are **active participants** during a teammate's dribble

2 Team Movement Patterns

- Can be **described**, **characterized**, and **analyzed**
- Used to assess individual & team interactions and success and challenges

3 Applied to performance

- Off-ball and team movement can be taught & implemented
- Enhance tactical strategy, recruiting and scouting

Limitations and Next Steps

Limitations

- Interactions were not incorporated into statistical models due to low sample sizes
- Situational context of dribbles not considered
- Other variables that may be important not included

Next Steps

- Build additional models to account for more factors
- Different types of data can be used to give a more complete analysis
- Categorize dribbles into different situations
- Incorporate findings into trainings

Dribbling is not just disruptive noise.

It can be communication.

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