Off–Ball Movements of Junior Football Players from Pune City During Corner Kicks: An Observational Study

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ABSTRACT

Off-ball movement is a key tactical component in football that significantly influences goal-scoring opportunities and team performance. This study aimed to analyse the off-ball movements of under-19 (U19) football players during corner kicks using a structured observation tool. A sample of 80 under-19 players from ZP school football matches in Pune City was observed. The observation tool categorized offensive runs into near post, far post, and penalty spot movements, while recording outcomes such as goals, shots on target, shots off target, ball loss, fouls, and no involvement. Data were collected through real-time match observations. The results revealed patterns in player positioning, frequency of different types of runs, and their effectiveness in creating scoring opportunities. Findings from this study provide insights into tactical behaviour during set-pieces at the youth level and highlight the importance of systematic off-ball movement analysis for coaching and player development. The observation tool proved to be a reliable and objective method for capturing and evaluating these movements in U19 football matches.

Keywords : Off-ball movement, Corner kicks, U19 football players, Observation tool, Set-piece analysis, Youth football, Tactical behaviour, Player positioning.

Introduction

Football is a dynamic team sport that requires not only technical skills but also tactical awareness and intelligent movement off the ball. Off-ball movement refers to the strategic positioning and movement of players without possession of the ball, aimed at creating space, supporting teammates, and generating goal-scoring opportunities.

In modern football, effective off-ball movements are crucial during set-pieces, particularly corner kicks, where precise positioning and timing can determine the success of an attack.

Set-pieces, including corner kicks, are recognized as critical moments in a match because they often lead to scoring opportunities. The efficiency of these moments depends heavily on players' understanding of space, anticipation of ball trajectory, and ability to execute planned movements. Observing and analysing these movements provides valuable insights into the tactical behaviour of players, especially at the developmental level, such as under-19 (U19) football players.

Despite the importance of off-ball movements, limited research has focused on systematically analysing these actions in youth football. Understanding how U19 players position themselves, execute runs, and respond during corner kicks can help coaches optimize training, improve set-piece strategies, and enhance overall team performance.

For this study, a structured observation tool was developed to systematically record and evaluate offensive players off-ball movements during corner kicks. The tool captures different types of runs, player positioning, and outcomes, providing an objective framework for analysing performance. By applying this tool, the study aims to identify movement patterns, assess effectiveness, and provide actionable insights for coaching and player development in youth football.

Methodology

The present study employed a descriptive observational research design aimed at developing and validating an observation tool to analyse offensive players off-ball movement during corner kick situations in football. The study focused on systematic, non-participant observation of match play without manipulating any variables.

The present study adopted a descriptive and analytical research design. The study aimed to systematically observe, analyse, and compare the off-ball movements of offensive football players during corner kick situations. No experimental manipulation was involved, and data were collected through structured observation. The population of the present study consisted of football players of Pune City who actively participated in organized football competitions at various levels, including 19 above school-level tournaments. The sample for the study comprised 80 Under-19 school football players selected from Zilla Parishad (ZP) inter-school football matches conducted in Pune City. The players were selected using a random sampling technique, and only

those players who were involved in offensive situations during corner kicks were included in the sample.

Data Collection Tool

The data for the present study were collected using a self-designed Off-Ball Movement Observation Tool developed specifically to analyse offensive players off-ball movements during corner kick situations in football matches. The tool was prepared after an extensive review of relevant literature related to football performance analysis and set-piece tactics, along with consultation from subject experts and experienced football coaches. The observation schedule included variables such as type of off-ball run, direction of movement, timing of the run, utilization of space, player positioning, and the outcome of the corner kick. Data were recorded through systematic observation of inter-school football matches, using both real-time match observation and recorded video footage to ensure accuracy and consistency in data collection.

Validity

Content validity of the observation tool was established to ensure that the items included accurately represent the construct of offensive off-ball movement during corner kick situations in football. The development of the tool was grounded in an extensive review of literature related to football tactics, set-piece analysis, performance analysis, and off-ball movement behaviour.

To establish content validity, the preliminary version of the tool was submitted to a panel of subject experts consisting of experienced football coaches, university-level physical education professors, and scholars specializing in football performance analysis and research methodology. The experts were requested to evaluate each item of the tool based on relevance, clarity, comprehensiveness, and appropriateness for analysing offensive off-ball movement during corner kicks.

Suggestions provided by the experts regarding modification, deletion, or inclusion of items were carefully reviewed. Necessary corrections were made to improve clarity, eliminate ambiguity, and enhance the tactical relevance of movement categories and outcome measures. After incorporating expert feedback, the final version of the observation tool was deemed content valid and appropriate for systematic data collection in football research.

Reliability

Reliability of the Off-Ball Movement Observation Tool was established through repeated self-verification by the researcher. The researcher is an experienced football player and

a certified football coach, which contributed to accurate identification and consistent interpretation of offensive off-ball movements during corner-kick situations. The tool was applied multiple times by the same researcher using standardized observation procedures during both real-time match observation and recorded video analysis of international football matches. Repeated observations of identical situations at different time intervals ensured consistency in recording movement categories and outcomes. Clearly defined operational definitions, uniform coding criteria, and the researcher's domain expertise minimized observer bias and confirmed intra-observer reliability of the observation tool.

Pilot Testing

A pilot study was conducted to test the feasibility and effectiveness of the self-designed off-ball movement observation tool. The pilot observations were carried out on Under-19 Bishop's School zone football matches, where teams from different zones competed against each other. In addition, selected international football matches were analysed using recorded video footage obtained from YouTube. Both live match situations and recorded videos were used to observe offensive off-ball movements during corner kick situations. The pilot study helped in refining the observation variables, improving clarity in recording off-ball movement patterns, and ensuring the practical applicability of the tool before its final use in the main study.

Procedure of Research Study

The data collection procedure was carried out systematically during Under-19 Zilla Parishad (ZP) inter-school football matches conducted in Pune City. Prior permission was obtained from the concerned tournament organizers before data collection. Selected matches were observed live at the venue. During each match, only corner kick situations taken by the attacking team were considered for analysis. The offensive players off-ball movements were carefully observed and recorded using the self-designed off-ball movement observation tool. Multiple observations of the same corner kick situations were conducted to ensure accuracy and consistency of data. The collected data were then organized, tabulated, and prepared for further statistical analysis.

Data Analysis

Table 1.1 : *Off-ball Movement and Outcome Observed Data*

S. N.	Off-ball Movement	Goal Scored	Shot on Target (no goal)	Shot off target	Ball Lost	Foul	No Involvement	Total
1	Near post run	2	2	8	4	0	8	24
2	Far post run	0	0	5	2	0	6	13
3	Penalty spot run	1	1	2	0	1	8	13
4	Edge of the box	0	0	3	1	0	5	9
5	Circling	0	0	1	1	2	3	7
6	Dummy run	0	0	0	0	0	3	3
7	Blocking	0	0	0	0	0	3	3
8	Crowding the goalkeeper	0	0	0	1	0	3	4
9	Decoy position	0	0	1	0	0	1	2
10	Rebound	0	1	1	0	0	0	2
	Total	**3**	**4**	**21**	**9**	**3**	**40**	**80**

The analysis of off-ball movements during corner kicks reveals distinct patterns and outcomes across different types of runs. The near post run was the most frequently attempted movement, accounting for 30% of all observations, and resulted in 2 goals, 2 shots short on target, 8 off-target attempts, and 4 instances of losing the ball, with 8 instances of no involvement, indicating moderate effectiveness in creating scoring opportunities. Far post runs and penalty spot runs were attempted less frequently; while penalty spot runs produced one goal, far post runs did not result in any goals, highlighting the importance of precise timing and positioning for these movements. Edge-of-box runs, circling, and crowding the goalkeeper showed low scoring effectiveness and often resulted in no involvement, suggesting these movements function more to create space or disrupt defenders than to directly score. Movements such as dummy runs, blocking, and decoy positions had minimal direct involvement and no goals, emphasizing their tactical role in facilitating teammates rather than generating scoring chances. Overall, only 3 out of 80 movements (3.75%) resulted

in goals, while half of all movements (50%) led to no involvement, underscoring the challenge of converting off-ball movements into direct scoring. These findings indicate that while movements like near post and penalty spot runs have some scoring potential, the majority of off-ball movements serve strategic purposes, such as creating space, distracting defenders, or supporting teammates. Therefore, training should focus on improving timing, positioning, and coordinated team movements to enhance the effectiveness of these off-ball strategies during corner kicks. Descriptive statistics such as frequency and percentage were used for data analysis

Conclusion And Recommendations

The study of off-ball movements during corner kicks in U19 football players from Pune City reveals that different types of movements serve distinct tactical purposes. Near post runs were the most frequent and moderately effective in creating scoring opportunities, while far post and penalty spot runs showed limited goal-scoring outcomes, emphasizing the importance of timing and positioning. Movements such as edge-of-box runs, circling, dummy runs, blocking, and decoy positions had minimal direct involvement in scoring, indicating their primary role is to support teammates, create space, or disrupt defenders. Overall, only a small fraction of movements (3.75%) directly resulted in goals, while half of all movements (50%) led to no involvement, highlighting that off-ball movements are largely strategic rather than directly goal-oriented. Based on these findings, it is recommended that coaches focus on improving the timing and positioning of key runs, utilize supporting movements strategically to create space, implement coordinated team drills simulating corner-kick scenarios, and employ video analysis for feedback to enhance player awareness and tactical decision-making. Additionally, continuous performance monitoring of off-ball movement efficiency can help identify strengths and areas for improvement, ultimately enhancing the effectiveness of set-piece strategies in youth football.

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