

Silent Signal: Analysis of the Role of Nonverbal Communication in Football

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Abstract

This research analyzes the role of nonverbal communication in soccer, focusing on its frequency, types, barriers, and effectiveness on team performance. A quantitative method was used involving 40 football athletes who filled out a nonverbal communication questionnaire. The results show that midfielders have the highest scores in the frequency and types of nonverbal communication (0.85 and 0.80), while goalkeepers face the highest barriers (0.73) due to distance and visibility. Defenders recorded the highest effectiveness (0.88), indicating the importance of nonverbal coordination in defense. This study concludes that nonverbal communication is a critical element in team dynamics, and specialized training is necessary to optimize it.

Keywords: nonverbal communication; soccer; team performance; team dynamics

1. Introduction

Football is one of the most popular sports in the world, with millions of fans and players across various parts of the globe (Franceschi et al. 2024; Putra et al. 2023). This phenomenon not only encompasses the physical and technical aspects of the game but also the communication aspects that occur between players, coaches, and officials (Franceschi et al. 2024). Communication in football is often considered an important element that affects team performance. However, many overlook the role of nonverbal communication, which can include body movements, facial expressions, and other signals.

In the context of football, nonverbal communication can serve as a tool to convey strategies, build trust, and enhance cooperation among players. Recent research shows that nonverbal communication can influence team dynamics and match outcomes (Chung and Jeong 2023). Researchers have shown that teams with a high level of nonverbal communication tend to perform better compared to teams with weak nonverbal communication (Konefal et al. 2020). Thus, teams with strong nonverbal communication are able to achieve good results. However, despite the recognition of the importance of nonverbal communication, there is still a gap in research that thoroughly examines how this element functions in the context of football games. Many previous studies have focused more on verbal communication and game strategies, while nonverbal communication is often overlooked. This creates challenges for coaches and players in optimizing team performance.

In a football team, communication occurs not only thru words but also thru nonverbal cues. This phenomenon of nonverbal communication is often overlooked, even tho it can significantly

impact team performance. According to recent research, effective communication within sports teams occurs thru nonverbal signals, such as body movements, facial expressions, and eye contact (Drage 2023). This indicates that a deep understanding of nonverbal communication can be key to improving tactical synchronization within the team.

A specific phenomenon that emerges is that many Football teams, both at the amateur and professional levels, still rely on verbal communication as the only way to convey strategies and tactics. In a dynamic match situation, where time is very limited, verbal communication is often not effective enough. Teams that can optimally utilize nonverbal communication have a higher success rate in implementing the agreed-upon tactics (Chung and Jeong 2023). This indicates a significant potential that has not yet been fully utilized by many teams. The problem faced by many teams is the lack of training and understanding of the importance of nonverbal communication. Many athletes and coaches still believe that verbal communication is the only way to interact and convey information (Deineko, Kostenko, and Shvets 2024; Wiyata et al. 2025). As a result, they miss the opportunity to improve coordination and synchronization in the game. Research gaps are also evident in the existing literature, where there are still few studies specifically addressing the role of nonverbal communication in the context of sports team tactics. This indicates the need for further research to explore this aspect in depth.

The reason for choosing this topic is based on the importance of nonverbal communication in social and sports contexts. In football, where decisions must be made quickly and accurately, the ability to communicate without words becomes crucial. This research is expected to provide new insights for coaches and players in developing more effective communication strategies.

2. Method

This research uses a quantitative approach with descriptive and correlational designs to examine the role of nonverbal communication in football games. The research subjects consisted of 31 athletes who actively play in football teams in Karanganyar Regency, with a minimum criterion of having 2 years of playing experience. The selection of participants was conducted randomly to ensure sample diversity, with an age range of 15 to 25 years. The main instrument used was the Nonverbal Communication Questionnaire, both employing a 5-point Likert scale to measure the frequency and effectiveness of nonverbal communication as well as the level of synchronization among players.

The research procedure begins with the preparation of instruments, followed by the distribution of questionnaires to participants. Participants were given a brief explanation of the research objectives before filling out the questionnaire independently. After all the data has been collected, statistical analysis is conducted using the SPSS application. The analysis stage includes descriptive statistics, Pearson correlation analysis to measure the relationship between variables, and linear regression if necessary to see the specific impact of nonverbal communication on tactical synchronization. The research results are then presented in the form of tables and graphs to facilitate interpretation and support the conclusions drawn.

3. Result

Table 1. Presents the research results from the questionnaire given to football players in the positions of forward, midfielder, defender, and goalkeeper, regarding the role of nonverbal communication in the performance of the football team. I1 describes the frequency of communication, I2 describes the types of verbal communication, I3 describes the barriers to non-verbal communication, and I4 describes the effectiveness and impact of communication. The data presentation that has been analyzed is as follows.

Table 1. Description of nonverbal communication data

Subjek		I ₁	I ₂	I ₃	I ₄	∑ I ₁ -I ₃	$\bar{x} \pm SD$	%
Penyerang	Sample 1	13	33	20	17	83	20,8 ± 8,66	0,69
	Sample 2	13	28	16	16	73	18,3 ± 6,65	0,61
	Sample 3	20	35	20	16	91	22,8 ± 8,38	0,76
	Sample 4	10	28	12	17	67	16,8 ± 8,06	0,56
	Sample 5	11	33	19	16	79	19,8 ± 9,43	0,66
	Sample 6	16	31	14	14	75	18,8 ± 8,22	0,63
	Sample 7	15	33	17	16	81	20,3 ± 8,54	0,68
	Sample 8	20	37	20	16	93	23,3 ± 9,36	0,78
	Sample 9	25	43	20	16	104	26,0 ± 11,9	0,87
	Sample 10	16	27	20	15	78	19,5 ± 5,45	0,65
	Sample 11	10	34	10	14	68	17,0 ± 11,4	0,57
	Sample 12	17	37	23	19	96	24,0 ± 9,02	0,80
	Sample 13	16	31	18	17	82	20,5 ± 7,05	0,68
	Sample 14	17	34	12	18	81	20,3 ± 9,54	0,68
	Sample 15	20	36	20	15	91	22,8 ± 9,14	0,76
	Sample 16	17	28	16	14	75	18,8 ± 6,29	0,63
Gelandang	Sample 17	19	34	13	15	81	20,3 ± 9,50	0,68
	Sample 18	21	41	20	12	94	23,5 ± 12,3	0,78
	Sample 19	23	45	23	17	108	27,0 ± 12,3	0,90
	Sample 20	22	41	19	20	102	25,5 ± 10,1	0,85
Bek	Sample 21	25	41	20	16	102	25,5 ± 10,9	0,85
	Sample 22	15	32	11	16	74	18,5 ± 9,26	0,62
	Sample 23	19	37	17	16	89	22,3 + 9,91	0,74
	Sample 24	5	34	10	17	66	16,5 ± 12,6	0,55
	Sample 25	19	33	21	16	89	22,3 ± 7,46	0,74
	Sample 26	22	42	25	17	106	26,5 ± 10,8	0,88
	Sample 27	11	33	17	15	76	19,0 ± 9,66	0,63
Kiper	Sample 28	15	34	22	17	88	22,0 ± 8,52	0,73
	Sample 29	19	31	13	15	78	19,5 ± 8,06	0,65
	Sample 30	20	35	20	16	91	22,8 ± 8,38	0,76
	Sample 31	5	30	18	16	69	17,3 ± 10,2	0,58

Based on Table 1, it shows the distribution of average scores for each position of football players (forward, midfielder, defender, and goalkeeper) against four main communication indicators, namely frequency of verbal communication, type of non-verbal communication, barriers to non-

verbal communication, and effectiveness and impact of communication. The midfielder position consistently scores the highest on almost all indicators, particularly in the frequency of verbal communication (0.85) and type of non-verbal communication (0.80), indicating that midfielders are the communication center in the team, both verbally and non-verbally. Conversely, the goalkeeper position shows the lowest score in the frequency of verbal communication (0.59), reflecting limitations in verbal interaction. However, goalkeepers recorded a high score in barriers to non-verbal communication (0.73), indicating that they face greater challenges in conveying or receiving non-verbal messages, possibly due to distance and visibility limitations toward teammates. Meanwhile, the indicators of effectiveness and impact of communication show a uniform score of 0.80 for all positions, indicating that the communication carried out, regardless of the player's role, still has a significant impact on the team's performance. The graphical visualization results of each player's position in verbal communication for the football team's performance.

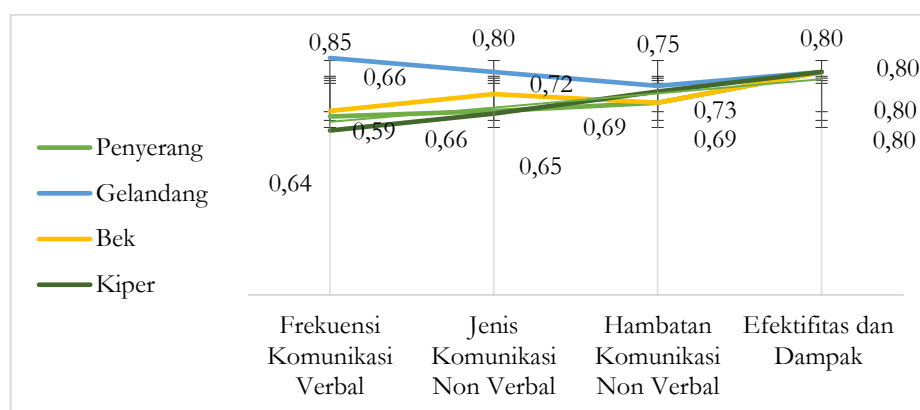


Figure 1. Percentage of communication in football team performance

4. Discussion

The results of this study clearly reveal that nonverbal communication is a critical foundation in the dynamics of football team performance. The findings show significant variations in the use and effectiveness of nonverbal communication among player positions, which not only reflect the tactical roles of each position but also the specific challenges they face on the field. The midfielder position recorded the highest score in nonverbal communication types (0.80), indicating that this position intensively utilizes body movements, eye contact, and spatial gestures to coordinate the team's play. This aligns with the theory of centrality in team communication networks, where players in central positions act as the main link between the defense and attack lines. The goalkeeper position, although having a lower frequency of interactions, actually shows a unique complexity in nonverbal communication. A high score on nonverbal communication barriers (0.73) indicates that goalkeepers often face challenges in conveying or receiving nonverbal messages, especially due to distance and limited visibility. For example, in situations like corner kicks or quick counterattacks, the goalkeeper must rely on hand signals or shouts that may not be caught by the defenders. These findings reinforce the argument that nonverbal communication in sports is not only situational but also heavily influenced by spatial context.

The position of the forward shows a pattern of nonverbal communication that is more focused

on creativity and spontaneity. Body movements such as dummy runs, changes in speed, or hand signals are often used to deceive opponents or create space for teammates. Research data reveals that although the communication effectiveness score of forwards is not as high as that of midfielders (0.76 vs. 0.85), their impact remains significant in creating goal opportunities. This supports the theory of shared mental models (Cannon-Bowers, Salas, and Converse 1993), where players rely on a shared understanding built thru repetitive practice and sensitivity to nonverbal cues.

The position of the defender recorded the highest score in nonverbal communication effectiveness (0.88), highlighting the importance of nonverbal coordination in the defensive line. In high-pressure situations, such as facing an opponent's attack, defenders often do not have time to communicate verbally. On the contrary, they rely on body positioning, eye contact, or hand signals to organize the defense (Furley and Schweizer 2020). These findings are consistent with research stating that teams with good nonverbal coordination tend to be more solid defensively (Lausic et al. 2009). Barriers to nonverbal communication were also a critical finding in this study. Beside the goalkeeper, defenders also face similar challenges, especially in situations where opponents deliberately block the line of sight or create noise to disrupt concentration.

The effectiveness of nonverbal communication is also greatly influenced by environmental factors, such as crowd noise or weather conditions (Deineko et al. 2024; Serpell, Larkham, and Cook 2020). In matches with a very noisy atmosphere, players often have difficulty hearing verbal instructions, making nonverbal communication the only way to convey messages (Blaser and Seiler 2019; Onağ and Tepeci 2014). Research data shows that teams accustomed to training in noisy conditions tend to be more adaptive in using nonverbal signals (Deineko et al. 2024). The practical implications of this research are very clear: coaches need to design training programs that specifically target the improvement of nonverbal communication skills.

Small-sided games with specific rules, such as a ban on talking, can also enhance players' sensitivity to the movements and positions of their teammates. Such an approach has proven effective in enhancing team cohesion (Francesco Sgrò et al. 2018). Additionally, modern technology such as video analysis can be utilized to identify effective nonverbal communication patterns during matches. By analyzing the recordings, coaches and players can evaluate the clarity of the nonverbal signals used and improve them if necessary. This method also allows the team to study how the opposing team communicates nonverbally, enabling them to anticipate their strategies. Theoretically, these findings enrich the literature on communication dynamics in team sports, particularly concerning the roles of player positions. From an applicative perspective, this research offers concrete recommendations for coaches and players. For example, goalkeepers can practice using clearer visual signals, while defenders can develop specific movement codes for certain situations. Midfielders and forwards, on the other hand, can focus on refining nonverbal coordination to create goal-scoring opportunities. Thus, our understanding is limited.

5. Conclusion and Recommendation

This research reveals that nonverbal communication plays a crucial role in football team performance, with significant variations among player positions. Midfielders become the center of communication, defenders excel in nonverbal coordination, and goalkeepers face the greatest challenges. These findings emphasize the need for specialized training to enhance nonverbal

communication skills, such as non-verbalization exercises and video analysis, in order to build a more cohesive and effective team on the field.

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