



Which visual sight skill tested and developed the interaction between central and peripheral vision case duels dribbling soccer skills

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ABSTRACT:

The present paper analyses the effects of visual keep sight to test and develop the interaction between central and peripheral vision the case of duels dribbling among soccer under 17 years. Where This research aims to propose a method evaluating and coaching this skill in the absence of laboratory tests and virtual visual exercises as a way for Algerian coaches to control the progress of their players. From the principle that the team which wins the most duels has the best chance of winning the game. [1] Our research supports the hypothesis which confirms in one hand that Dynamic visual acuity is the combine between Peripheral and Central vision to have one eye on the ball and the other on the defined [2] . While some authors confirm that the Top-class football players do not watch their steps, but dribble with their heads up [3]. Whereas Previous studies confirm estimate of distance ball foot player is the strategy to master this skill [4] which requires the involvement of the commitment of peripheral vision for information and central vision to master the ball [5]. From the proof and results statistics applied in the current study, we confirm that narrow spaces require the interaction of central vision than peripheral vision. Otherwise, free spaces require peripheral vision than the central vision. Which leaves us to confirm that peripheral vision in the limited space [6] can suffer because the player needs to pay close attention to each contact with the ball [7].

Keywords: visual sight skill, peripheral vision, central vision, duels in soccer skills

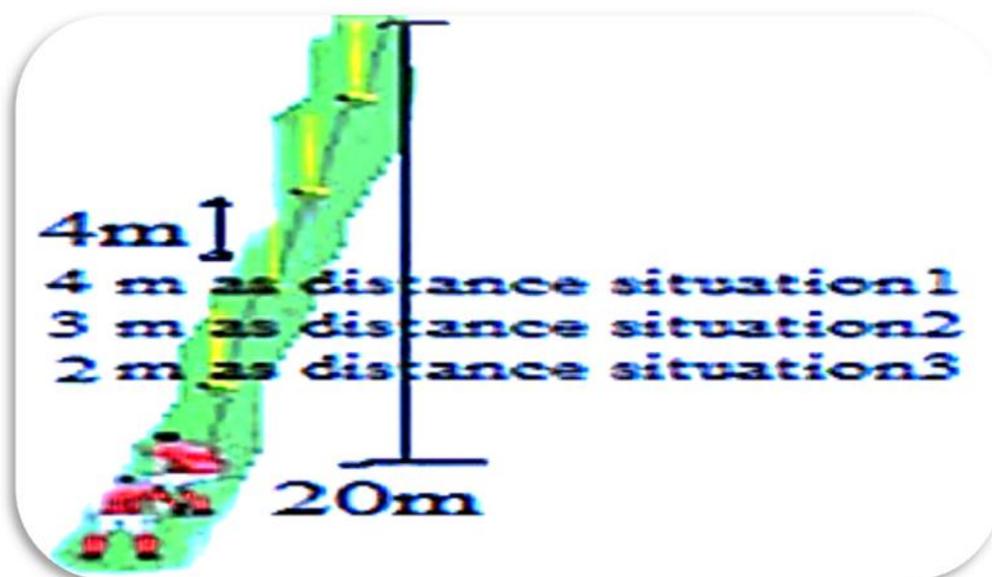
Introduction

The human visual system is the part of the central nervous system [8], where the eye receives physical stimuli in the form of light [9] and sends those stimuli as electrical signals to the brain, which interprets the signals as images [10]. From that, our eye detects as a kind of filter between us and the environment [11] based on a peripheral vision which provides visual impressions of space, the orientation of the movement, and central vision provides closure and identification [12]. Whereas the differences between central and peripheral vision are mirrored in subtle physiological and anatomical differences in the visual cortex

[13]. This complication limits the research in this area primarily in clinical settings [14] where the role of visual performance in sports has received considerable attention over the years [15]. However, Meysam Rezaee et al, [16] confirm that all the programs have been carried out in laboratories and clinical settings with the heavy expense for the athletes. Therefore, this research was designed to examine the impact of visual keep sight developed the association between central and peripheral vision case duels in soccer skills where their aims are proposing a method evaluating and coaching this skill in the lake of field tests and virtual Visual exercises as a way for

Algerian coaches to control the progress of their players [17]. Since the importance of duels make up 30 to 40% of the actions that take place during a soccer match [18]. Where the vision is a crucial part of training in competitive soccer programs. That Colin E. Schmidt indicts in Good vision which becomes habitual when the players become more comfortable with the ball and apter at handling defensive pressure [19]. While Martin Bidzinski confirms that players cannot play soccer seriously if they cannot read the game head up [20]. For the principle that the visual system like Musco-skeletal system responds to overload principle. Even the components of the perceptual system functions can be improved through exercise [21], we have chosen the correlation, ANOVA and the LSD, to determine the impact of the vision interaction (Peripheral versus Central) in duels Soccer among Young soccer (under 17 years). where Craig A. Wrisberg (2007) confirms that Aspects of dribbling a soccer ball while being defended that players could discover or improve on their own include shielding the ball from the defender, dribbling with both the inside and outside of the foot, and visually scanning the field dribbling. [22]

Fig1 test-slalom dribble soccer



METHODS

Subjects

The study sample consisted of 21 players who master the skilled dribbling and play in the same championship divisions from the national championship (Oran football league) that we have tested in three situations for the interest of which difference can we observed in our protocol experiments.

Testing Protocol

The Players chosen were tested in three, situations environment bases on the test-slalom dribble [23] indict in fig 1. Where Dribbling required players to negotiate 5 cones over 20 m [24] Distributed in four consecutive meters from the starting line. The intervention of the research was to include the reduce studs (1.80) in the place of cones with the reduction of the distance between them see Fig 1. [25] [5] The test chosen is good ecological and construct validity as well as high infraclass correlation coefficient indicating a high test-retest reliability ($r = 0.95$) according to [26] Stone KJ and Oliver JL(2009).

Procedure

As the objective research in this study, we have recorded the time number of ball contact and Heads Up in tests. Filmed by our team of biomechanics Laboratory OPAPS as experts in these types of studies protocols and methods. Which approved the current protocol. All participants were informed of the procedures, and all provided their written consent to attend this

experience. At Mostaganem sports complex 22-04-2015 1h30mn in the weekly session with the agreement of their coach.

Statistical Analysis

All data are presented as the mean \pm SD. The significance level was set at $P < 0.05$ for all analyses. All statistical analyses were calculated using SPSS for Windows, version 20 (SPSS Inc., Chicago, IL, USA)

RESULTS

Table 1. Homogeneity normality correlation ANOVA and LSD of the participants based on Time in situation proposed

variables	means \pm SD	Shapiro-Wilk		Levene Statistic		F	
		Statistic	Sig.	Statistic	Sig.	Statistic	Sig.
situation 1	6,68 \pm 0,43	0,95	0,35	0,81	0,45	8,86	0,00
situation 2	7,28 \pm 0,58	0,96	0,52				
situation 3	7,29 \pm 0,58	0,96	0,56				
Multiple Comparisons				LSD		correlation	
		Mean Difference	Sig.	R	Sig.		
Situation 1	situation 2	-0,60*	0,00	0,76**	0,00		
	Situation 3	-0,61*	0,00	0,75**			
Situation 2	Situation 1	0,60*	0,00	0,76**			
	Situation 3	-0,01	0,97	0,99**			
Situation 3	Situation 1	0,61*	0,00	0,75**			
	situation 2	0,01	0,97	0,99**			
* . The mean difference is significant at the 0.05 level.							
** . Correlation is significant at the 0.01 level (2-tailed).							

Table 2. Homogeneity ANOVA of the participants based on Number of Ball contact in situation proposed

Ball contact	means \pm SD	Levene Statistic		F	
		Statistic	Sig.	Statistic	Sig.
Situation 1	11,81 \pm 0,93	1,22	0,30	0,67	0,51
Situation 2	12,05 \pm 0,97				
Situation 3	12,19 \pm 1,29				

Table 3. Homogeneity ANOVA and LSD of the participants based on Number of Heads Up in situation proposed

Heads Up	means \pm SD	Multiple Comparisons	LSD		Levene Statistic		F	
			Mean Difference	Sig.	Statistic	Sig.	Statistic	Sig.
Situation 1	6,05 \pm 0,75	Situation2	1,23*	0,00	1,99	0,15	20,92	0,00
		Situation3	-0,05	0,83				
Situation 2	7,81 \pm 0,75	Situation1	-1,23*	0,00				
		Situation3	-1,28*	0,00				
Situation 3	8,09 \pm 0,83	Situation1	,047	0,83				
		Situation2	1,28*	0,00				

*. The mean difference is significant at the 0.05 level.

Table 1. shows the mean (\pm SD), the Levene Statistics (W), and ANOVA& LSD results. Levene Statistics (W) Shapiro-Wilk were not significantly at p 0,05, which confirmed the equality and homogeneity of the sample variables in our study. However, the ANOVA& LSD calculated for the particular situations based on the time were significantly at p 0,05 for the benefit of the situation 1, which confirmed the approximation of the studs increases the complications skills players in the proposed situations. Whereas the correlation confirms the validity of the test where the proposed situations did not affect its credibility. Through the **Table 2.** the Levene Statistic Shows homogeneity of the sample variables in our study whereas all ANOVA based on the Number of Ball contact was not significant at p 0,05, which confirmed that the proposed situations do not complicate handling ball Technical mastery. As the **Table 3.** the Levene Statistic Shows homogeneity of the sample variables in our study whereas the ANOVA& LSD calculated for the particular situations based on the Number of Heads Up were significant at p 0,05, which confirmed the proposed situations complicated interaction between central and peripheral vision where the narrow spaces increase the Heads Up in the opposite of the free spaces which decrease the Heads Up.

DISCUSSION

Based on the protocol used in this study, where This research aims to propose a method evaluating and coaching this skill in the absence of laboratory tests and virtual visual exercises as a way for Algerian coaches to control the progress of their players in duels.

Our results confirm that the approximation of the studs increases the complications skills players in the proposed situations case of time as predict parameter. Where our finds line

we confirm of Joseph Luxbacher (2010) that reduce of space available to dribblers increase the errors of the ball carrier [27] from that we confirm the validity of the proposed situations as a method to assess and train this skill a thing confirmed by Alex Monnig (2014) that the best ways to develop quality dribbling skills are to set up cones in various formations as the cones closer and closer, which increase the difficult spaces to dribble [28]. Whereas in the case of the Ball contact, we confirm that these errors they do not return to control of the ball or the technical dribbling where our results line with a confirmation which confirms that control is not so essential as moving quickly [29] the case of duels situations when the player is expert [30]. For the Number of Heads Up our results confirms the previous results. where the narrow spaces increase the Heads Up in the opposite of the free

spaces which decrease the Heads Up. Where our results confirm that the dribble consists situations free and close space on this basis, we required our coaches to develop dribbling skills in a more realistic environment [31] [25] [5] [32]

From the proof, our finds line with an indication that this simple system is a fun way of encouraging players to keep their heads up and not watch the ball as they move [33] in free spaces according to the current study. Whereas in the case close opposition we refer to American Sports Education Program Instructions When players are dribbling, they need to watch the ball when they touch it, but also keep their head up so they [34] [35].

From the above, we agree that estimate of distance ball foot player is the strategy to master this skill [36]. Where Chip Sigmon confirms that Dribbling is a touch skill, not a sight skill, [37] the case of basketball while in the case of soccer player Jaime Orejan confirm that sight skill must not be forgotten in dribble up [38]. However, view the limitations of this study, we agree that Future research with variations of repeated dribbling should be developed to identify the best training and replicate soccer sport. [39]

CONCLUSIONS

In the lake of visual laboratories and clinical settings we require our coaches to use the distance as a means of visual assessment and training to control the progress of their players in duels dribbling skills where good peripheral vision allows players to make better decisions [40] [41] about the use of the ball [42] in free spaces away from the opposition closes the case of the current study. Whereas in the case of close space and the opposing closer the player must have one eye on the ball and the other on the defenders [2] as a strategy to estimate the distance ball foot player defender [4] [5].

Our findings confirmed that peripheral vision in the opposition closer suffers because the player needs to pay close

attention to each contact with the ball [6]. Which confirms on one hand that the winners of individual duels have a critical impact on the outcome of the game [43] [44] due to the combination of action variables (ball-feet- defender - space) are related to successful outcomes [45]. On other that the duels opposition closer, require the continuation of the reading game and decision-making [46] [47]. While viewing the limitations of this study, we agree that further studies are needed to implement the actual findings associated with our hypotheses. [48]

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