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Which Visual Optimal Approach Evaluate the Accuracy Kicking Success in Soccer

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Abstract

Seen the Soccer Accuracy kicking is formulated based on the esteem of the player. Our interest in this study came from the reality of the means of assessment available to Algerian coaches. Where the Limitations of existing methods for evaluation of kicking success in soccer, do not allow them to judge the progress of them players. The objectives of this study are to determine the impact of vessel information on Accuracy kicking success among 20 soccer players under18 years, representing the team Sidi bel abbes for year 2014-2015 in Algerian championship according to them results in the proposed situations case the Eye dominance and Binocular vision in accuracy test.

Based on statistical analysis applied, we confirm:

- There is a strong positive correlation relationship between the proposed visual situations (Eye dominance- Binocular).
- The weakness of the research sample in binocular vison situation return to the ability of brain to judge the received images from the both eyes.
- Developing estimations accuracy kicking success required that the dominant eye must provide the most of the visual input to the brain.

Where the most important factors influence the Accuracy kicking success among our soccer in the frequent situation consisted in the conflict between dominant eye and weak.

Keywords: soccer, evaluate accuracy, kicking success.

1. Introduction

Successful goals typically come from shots that have both pace and accuracy where literature review confirmed that Soccer performance in shooting depends upon a myriad of factors, such as technical/biomechanical, tactical, mental and physiological areas. In our case, we refer to American sport education program that, the most important components of shooting are balanced stance, focusing on the target (McGee, 2007). Whereas said that, (Andersen, Dorge, 2009) players generally self-select the optimal approach speed for both shot velocity and accuracy. While the (America, National Soccer Coaches Association of, 2004) that the key for the player will be to identify certain visual cues that point toward the right decision. In general, shooting with Power and accuracy are two major components of any shot (Dorothy, Lois, Frank, 2003). Whilst (Rechard, 1990) indicate before choosing the way the player must controlling the ball into a

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position to shoot, where he should observe the position of the goalkeeper and select the appropriate shooting skill. Based on the Accuracy, which is paramount whether the player opts for power in the shot using the instep drive from that (Clayne, Garth, 1979) the shooting Skills are logically divided into (1) accuracy skills, (2) power skills, and (3) maneuverability skills. However, (John, Vincent, 2001) the most goals are scored by shooting hard and accurately on goal. In addition, combining power with accuracy needs a good technique that (Stewart, 1995) explains in the right combination of Balance, control, accuracy and power. In our modest study, we chose the Impact of Visual information evaluate the Accuracy. Where (Robertson, Elliott, 1996a) and (Davids, Renshaw, Glazier, 2005) confirmed the important role in the control and production (Robert, Koger, 2015) of shooting movement to estimate the outcome as the power and accuracy required in difficult situations of games. From that, our background is based on the confirmation of National Alliance for Youth Sport (National Alliance for Youth Sports, 2011) that players must work on their accuracy, distance, and technique based on visual training. where our background medical confirms that the weakness or absence of the ocular dominance is significant when the weak eye is the dominant eye. For this propose, our research sample was consisted by Players confirmed category under 18 years, representing the team Sidi bel abbes for year 2014-2015 in Algerian championship, tested in two situations (Eye dominance - Binocular).

Where the Purpose of the current study was to anticipate their strategist under the two deference visual plans (Debra laParth, USA) as delineate of the roles visual information where the literature reviews in in sports confirmed:

- The action representations of experts are stated to be hierarchically organized containing cognitive motor units, which act to guide the planning and execution of actions (Schack, Mechsner, 2006).
- The action representations of the novices have been shown to be less hierarchically organized (Schack, Hackfort, 2007).

While the medical confirms that the weakness of the ocular dominance is significant when the weak eye is the dominant eye (Fischer, 2010).

2. Methodology

Subjects

Our research sample was consisted by 20 soccer Players confirmed category under 18 years, representing the team Sidi bel abbes for year 2014-2015 in Algerian championship, them homogeneity were calculate based on ophthalmological examination vision 10/10 in each eye, total mastery of shoots with a success rate, over than 70% in the practical test normal vision, furthermore weight, age and all they were informed about procedures and all provide written consent. Whereas to expert the study protocol and methods we choose the laboratory OPAPS "Institute of Physical Education of our University" who approve it by the professors of football and neuropsychologist,

Testing Protocol

Our sample was tested in two situations plan accuracy test based on the test shooting accuracy figure 1:

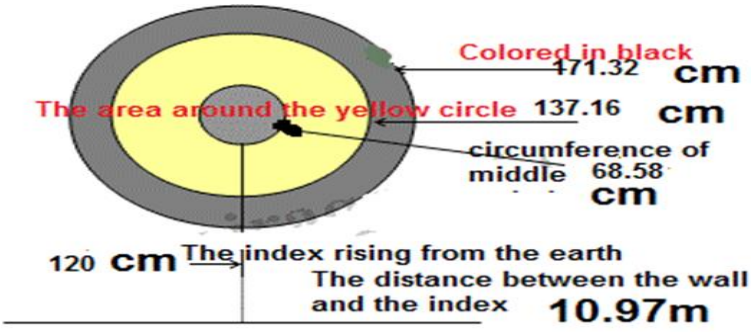

Figure 1. Measure accuracy in the case of our study

This procedure describes the method used to measure the Accuracy shooting skill.

Procedure: The soccer stands 10.97M from the distance between the walls where the index rising in horizontal plan 1,20m from Surface earth, and for the index circle seen fig1. The player did 3 shot counted. Whereas in the Eye dominance we have crowded the weak eye.

Scoring: middle circle 3 points, yellow circle 2 points for black circle 1 point other 0 point.

Statistical Analyses

Data analysis was performed using SPSS 22.0 for Windows (32BIT). Data obtained from the tests showed a normal distribution and were presented as mean ± standard deviation. Paired sample t-test was conducted to combine the results obtained from the two cased plan where the relationship between the two proposed situation was analyzed by Pearson correlations (r).

3. Results

The characteristics of the study sample are presented in Table 1. Where all comparisons with the Shapiro-Francia test shows the normality using and Levene Statistic shows the homogeneity.

Table 1. show the Characteristics of the sample in the variables chosen to study

Variable	means ± SD	Shapiro-Francia test	Levene Statistic	Sig.
Age (years)	17,20± 0,77	0,99	0,20	0,66
Weight (kg)	68,16 ± 5,27	0,94	1,45	0,24
Height (cm)	174,75± 4,58	0,97	0,02	0,89
Age Training	5,55±0,51	0,97	0,34	0,97
Eye dominance	20,75±5,67	0,99	1,41	0,25
Binocular	18,25±2,09	0,98	0,06	0,81

For the Table 2 which show the regression analyses relating the situation Binocular and Eye Dominance, all the relationships calculate between the proposed situations are strong positive significant at p value ≤ 0.05 between the two situations. while the program choose sin the Model 1 that Eye dominance was able to explain the changes in the Binocular, where F and T are significant at P <0.001 form that our equation:

Binocular situation = 1,64 + 0,80 Eye dominance

Table 2. show regression analyses relating Binocular and Eye Dominance

Model Enter	R	R^2	Adjusted R^2	Coefficients[a]	T	P	f	P
1	0,98[a]	0,82	0,81	(Constant)	0,90	0,37	84,48	0,00
				Eye dominance	9,19	,00		
Dependent Variable: Binocular / Predictors: (Constant), Eye dominance								

Through the table where we have calculated the Paired Samples Test all the compare are in the benefit of the situation Eye Dominance

The Table 2 show Paired Samples Test calculate between Binocular and Eye Dominance

Age Training	means ± SD	T	Sig.
Eye dominance & Binocular	20,75±5,67	11,18	0,00
	18,25±2,09		

4. Discussion

Through the results table 1, 2 and 3 Based on statistical analysis applied, we confirm:

• There is a strong positive correlation relationship between the proposed situations (Eye dominance- Binocular).

• The weakness of the research sample in binocular vison satiation comparing with eye dominate return to the ability of brain to judge the received images from the both eyes.

• Developing estimations accuracy kicking success required from the dominant eye to provides most of the visual input to the brain. Or the ability of the two eyes to work together to fixes a target and the movement (Turner, Rack, 2006)

From the proof Where agree (Roselius, 2008) that an accurate shot is usually more on target, developed (Asada, Kitano, 2003) as experiments training performed in workouts. Based on the Paired Samples Test and the Regression analyses relating the Binocular with Eye Dominance we certified that the different are related to visual information due to the Eye dominance which must the most of the visual input to the brain (Mann, Grossman, 2010) in the frequent situation (Zerf, 2015). where our results are consistent with (Mishra, Mishra, 2013), (Itay Basevitch, Gershon Tenenbaum, Paul Ward, 2015) that the role of visual information and action representations required from the soccer players to performed their skills, under three visual conditions: normal, occluded, and distorted vision (Zerf Mohammed, Bengoua Ali, 2015). Where (Caljouw, Savelsbergh, 2004) confirms that, the visual-perceptual input has been shown to be an important source of information to regulate action (Zerf, Ali, 2015). However, (Basevitch, 2009) confirms that more detailed examination by the role of visual information help the player to product superior performance, which is essential power and accuracy in our case when the dominant eye provides most of the visual input to the brain. Moreover, (Scurr, Hall, 2009) confirm that the kick accuracy has not been fully described. From that, we agreed the opinion of (Lees, Burwitz, 2000) that kicking is enhanced with training and is a well-developed skill in experienced players (Zerf, 2015).

5. Conclusion

Results from the present study conclude that shooting training accuracy must be applied in non-typical conditions (Zerf, 2015), (Harrison, 2005). Where (Dooley, Titz, 2012) confirm that, the Good conditioning and technique combined with mental toughness are good basic prerequisites for successful goal scoring. From the proof, we support the theory that success back from a Normal vision" is the presence of 20/20 visual acuity in both eyes and the ability to use the eyes together in the binocular vision (Lens, Nemeth, Ledford, 2008). However, our cases Protocol confirm:

1. Any less or conflict in visual information defect motor system to compose and adjust the outcome (Mann, Ho, De Souza, Watson, Taylor, 2007).
2. The Success of our sample in the situation dominant hand and dominant eye resulted in the highest degree of coordination (Kane, 2015) for perception-to-action (Denis, Engelkamp, Richardson, 2012).
3. The weakness of our sample binocular conditions return to the ability to use both eyes simultaneously to focus on the same object and to fuse the two images into a single image (Stein, Stein, 2012) Or the ability of the two eyes to work together to fixes a target and the movement (Turner, Rack, 2006).

Where our find confirmed the vision of (Davids K., Lees A., Burwitz L, 2000) that further interdisciplinary work is needed to enhance understanding of coordination and control of soccer skills in our case.

The important skills to master the outcome shooting skill are intercepting the actions (input) to anticipate (output) (Knudson, 2013) in a low-pressure practice type environment (Bennett, Davids, Savelsbergh, 2004).

Through the above, we recommended our player and couch to the Accuracy kicking success in soccer they must performed their skills, under three visual conditions: normal, occluded, and distorted vision Because the Movement accuracy and coordination problems may be the result of sensory-related problems (Magill, 2010).

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