



Impact Of Training Approach Using Mental Training Companion Performance In Some Special Physical Abilities, Psychological, And Offensive Skills For Soccer Midfielder Players

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Abstract

Research problem lies in clear gap between technical skills and cognitive abilities among midfielders. Field observations and analytical studies show that many players possess good technical skills but suffer from weaknesses in motor creativity and unconventional decision-making under pressure. This deficiency is particularly evident in critical attacking situations that require creative solutions and unexpected choices. Furthermore, to the best of the researchers' knowledge, previous studies have not addressed integration of mental visualization with sensory perception in a single program aimed at developing motor creativity. Therefore, the researchers designed a training program based on integrating mental visualization with sensory perception for advanced football players. Research aims to design a training program using mental visualization training alongside practical training for advanced football players, developing transitional speed and attack organization for advanced football midfielders. The researchers used a single-group experimental method, as it is suitable for nature of research. The researchers purposively selected research population and sample, which consisted of 60 advanced football players in Sulaymaniyah Governorate. The researchers concluded that training program was effective in developing physical, technical, and psychological aspects of advanced football players. Training shortens path between seeing situation and making a decision, and expands physical and mental repertoire of a football player.

Keywords: Mental Training, Physical Abilities, Psychological Abilities, Offensive Skills, Soccer

Introduction

Modern football is witnessing a remarkable development in sports training methods, as successful performance no longer depends solely on physical fitness and technical skills. Rather, cognitive and sensory-motor abilities have become cornerstone in developing outstanding football players. This is what Hisham Atta et al. (2024) pointed out, stating that "developing precise physical indicators directly contributes to improving performance in crucial situations." From this standpoint, urgent need has emerged for training methods that go beyond traditional approaches to player development. Midfield is considered mastermind of team, as its players are responsible for organizing game and linking defense with attack. This requires advanced cognitive and sensory abilities that enable them to understand rapid changes on field and make sound decisions under time pressure and opponent pressure.

Research problem lies in clear gap between technical skills and cognitive abilities of midfielders. Field observations and analytical studies show that many players possess good technical skills but suffer from a weakness in motor creativity and making unconventional decisions under pressure. This deficiency is particularly evident in critical attacking situations that require creative solutions and unexpected choices. In addition, previous studies, to the best of the researchers' knowledge, have not addressed integration of mental imagery with sensory perception in a single program aimed at developing motor creativity. Therefore, the researchers designed a training program based on integration of mental imagery with sensory perception for advanced football players.

Research objectives are to design a training program using mental visualization training combined with performance in specific physical, psychological, and attacking skills for football midfielders. Developing transitional speed and attacking organization for advanced football midfielders. Identifying sport descriptions of variables used in research for advanced football players. Identifying differences in variables for experimental group of advanced football players.

Research hypothesis there are statistically significant correlations between pre- and post-tests of some specific physical and psychological abilities and attacking skills of football midfielders, in favor of post-test for experimental group.

Terms Defining

Mental visualization training: This is process of creating and recreating experiences in mind using all senses (sight, sound, touch, smell, and taste) without actual external stimuli. In sports, it refers to a player's ability to visualize themselves successfully executing skills and strategies before actual execution. Attack organization: This is process of coordinating player movements and positioning them on field to create effective attacking opportunities. It includes proper positioning, timing of movements, selection of spaces, and systematic, rather than random, execution of attacking plans. Sensory-motor perception: This is ability to interpret visual, auditory, and spatial stimuli in surrounding environment and translate them into appropriate and rapid motor responses. In football, it means reading situation and making right decision at right time.

Research Methodology

The researchers used single-group experimental method because it is suitable for nature of research, as experimental research is the most accurate type of scientific research that can affect relationship between independent variable and dependent variable in experiment. Research sample was selected from advanced football players Peshmerga Club in center of Sulaymaniyah Governorate in a purposive manner, and their number is 60 advanced players, with 30 players for pre-test and 30 players for post-test.

Table 1. percentage and chi-square (χ^2) value of expert opinions for training program and tests

Fields	Suit able	Percenta ge	Not suitab le	Percent age	chi ²	Sig. valu e	Sig. level
Training program	12	92.30%	1	7.7%	9.30	0.00	Sig.
Suggested tests	13	100%	zero	zero%	13	0.00	Sig.

Table 2. Homogeneity Of Research Variables Is Shown

Variables	Measurement unit	Mean	Mediator	St.d	Torsion coefficient
Perception of time	Second	3.25	3	0.38	0.367
Decision quality	Degree	5.77	5	1.11	0.518
Transitional speed	Second	4.91	4	0.32	0.551
General scrolling accuracy	%	55.5	54	7.9	0.787
Short pass	%	66.9	66	6.9	0.554
Medium pass	%	60.2	59	7.5	0.660
Long pass	%	45.6	45	6.9	0.444

Correct decisions	Minute	2.79	2	0.96	0.533
Kinetic authenticity	Degree 1-10	4.6	4	0.91	0.654
Motor fluency	Degree	3.25	3	0.8	0.593
Accuracy in decision making (while tired)	%	50.6	50.6	8.7	0.641
Response time during exertion	Second	3.3	3	0.3	0.358
Performance stability	Degree 1-10	4.4	4	0.7	0.245

Training methodology

Training methodology using training conceptual mental companion for training practical for players line advanced football midfield. General information about the training curriculum - Total duration: 8 weeks.

Weeks 1-2: foundation stage: mentalization sessions 3 times a week for 20 minutes each, imagine movements without ball 5 minutes, to imagine scenarios offensive 10 minutes, recovery positions successful 5 minutes, applying process 4 times weekly, warm-up: 15 minutes main part training speed transitional 4x30 meters 60 second rest, passes sequential quick 3 x 10 minute session 3 minute rest, matches mini 2x8 minutes 4 minute rest, cool down for 10 minutes.

Weeks 3-6: Developmental stage: Mentalization sessions 4 times a week for 25 minutes each, imagine positions under pressure 8 minutes, imagine taking decisions quick 10 minutes, discussion tactical mental exercise 7 minutes, applying operation 5 times weekly, warm-up: 15 minutes, main part training speed with changing direction 6x20 meters 45 second rest, passes under pressure defenders 4x8 minutes 3 minute rest, drills transmission fast attack, defense 3 x 12 minutes 4 minute break, matches mini 2x10 minutes 5 minute rest, cool down 10 minutes.

Weeks 7-8: phase a for consolidation and evaluation: mindfulness sessions twice a week for 30 minutes each. review comprehensive for parking 15 minutes, imagine matches real thing 10 minutes, evaluation self for performance 5 minutes, applying operation 3 times weekly, warm-up: 15 minutes main part applications tactical complete 2x15 minutes 5 minute rest, positions transitional quick 4x6 minutes 3 minute rest, matches preparatory complete rest between two halves are 15 minutes each, cool-down 10 minutes.

General instructions for implementation

Repetitions weekly sessions mental training 3-4 sessions, process 4-5 sessions days rest 2 days weekly, recovery periods between repetitions high intensity 1:3 work: rest, between repetitions medium intensity 1:2 work : rest, between repetitions low intensity 1:1 work : rest, between sessions main 48 hours.

Tests used

Time cognitive and taking decision: purpose measurement speed accuracy taking decision in positions offensive, tools: screen an offer, system video, hour timing, form registration, environment: laboratory closed calm' procedures: player sits on after 3 meters from screen, displays video lasts 10 seconds for position offensive, stops video when moment critical before passing or shooting, records time response the player from moment stop until taking decision, evaluates accuracy decision from 1-10 points, standards rating: time response in seconds quality decision out of 10 points, suitability decision for the position.

Speed transitional: purpose: measurement speed transition from attack to defense and vice versa, tools: playground ball foot, cones, hour timing, tape measurement, location: between area penalty 30 meters distance, procedures: begins player from line region penalty team, when signal coach runs at maximum speed region penalty opponent, touches line region penalty opponent and returns immediately, records time the whole to go return, 3 attempts best time registered, standards evaluation: time whole in seconds speed maximum m/s, time access for speed maximum.

Passing accuracy under pressure: purpose measurement accuracy passing in conditions pressure, equipment 10 balls, 4 goals animated, area 20x20 meters, procedures: player stands in center area, there are 4 goals animated in corners, when signal optical he should pass for purpose illuminated within 3 seconds, existence defender annoying for pressure psychological, 12 attempts 4 short, 4 medium, 4 long, standards rating: percentage passes successful%, accuracy scroll according to distance- time between signal and the implementation of that.

Performance evaluation in matches miniature: purpose : evaluation performance job in conditions similar for match, equipment: a 60x40 meter playing field, cameras video, forms evaluation, procedures: a 7 vs. 7 match for 20 minutes, monitoring from before analysts trainers, registration all events using system analysis performance, evaluation decisions and passes and movements, standards rating: number decisions correct accurate rate passes successful%, effectiveness organization offensive 1-10 passes successful.

Creativity kinetic: purpose: measurement ability on innovation solutions kinetics traditional, tools: balls, cones, area 15x15 meters, procedures: place player in positions difficult not stereotype, request from him find solutions creative, evaluation

solutions from where authenticity lack of traditional fluency number solutions, flexibility diversity solutions, suitability effectiveness solution, standards rating: degree authenticity 1-10, number solutions introduction, diversity solutions effectiveness implementation.

Psychological physical pressure: purpose: measurement performance under pressure dual psychological and physically, tools: device to run, balls, a screen an offer, device measurement strikes heart, procedures: performance efforts physical on device running 70% of maximum an effort, during effort physical, shows positions take resolution fast, measurement: accuracy decision under fatigue time response with stress- stability performance under the pressure, standards rating: percentage decisions correct under fatigue change time response index stability performance.

Pre- test

After identifying basic variables, tools and devices used and ensuring their validity, pre-test and measurements were carried out on 15 and 16/9/2024.

Variables	Measurem ent unit	Pre-test		Post-test		Calculate d t value	Sig. value	Sig. level
		M.	St.d	M.	St.d			
Perception of time	Sec.	3.25	0.38	2.10	0.28	3.21	000,0	Sig.
Decision quality	Degree	5.77	1.11	8.22	2.11	6.222	0.00	Sig.
Transitional speed	Sec.	4.91	0.32	3.39	0.44	2.14	0.00	Sig.
General scrolling accuracy	%	55.5	7.9	80.55	9.14	9.25	0.00	Sig.
Short pass	%	66.9	6.9	85.22	8.55	6.14	0.00	Sig.
Medium pass	%	60.2	7.5	79.21	9.27	7.15	0.00	Sig.
Long pass	%	45.6	6.9	70.25	8.25	6.14	0.00	Sig.
Correct decisions	Min.	2.79	0.96	4.35	1.21	5.25	0.00	Sig.
Kinetic authenticity	Degree 1- 10	4.6	0.91	7.14	2.95	5.14	0.00	Sig.
Motor fluency	Degree	3.25	0.8	5.59	1.22	3.33	0.00	Sig.
Accuracy in decision-making (while tired)	%	50.6	8.7	74.25		6.88	0.00	Sig.
Response time during exertion	Sec.	3.3	0.33	2.1	0.30	2.99	0.00	Sig.
Performance stability	Degree 1- 10	4.4	0.7	8.1	1.33	4.55	0.00	Sig.

Approach implementing

Training approach was implemented from 8/17 to 11/19/2024 for a period of (8) weeks.

Post- test

After completing application of training approach to main research sample, the researchers conducted post-tests for research variables on 9/20/2024 using same method as pre-test.

Results and Discussion

Results of pre- and post-tests for experimental group

Table 3. mean, standard deviation, and statistical significance of pre- and post-tests for experimental group

Training approach training mental practical achieved improvement noticeable in all aspects measured results. these findings are consistent with those of fouad abdel latif (2024) regarding close relationship between physical and functional abilities and accuracy of skill performance. this supports effectiveness of training program used in current research, which combined mental and practical training to achieve overall improvement in physical, technical, and offensive organization aspects.

Conclusions

Effectiveness of training approach to develop physical, technical and psychological aspects of midfielders in football. the program is concise road between vision position and taking decision and expands library kinetic and mentality for a football player. the training program creates integration between mind and body builds predictions correct for movements next one.

Recommendations

Emphasizing use of training program by coaches and players in developing physical and skill variables of football players. Encouraging use of training program as an effective method through continuous applied research. Adapting training program to other events and applying it to different sports.

References

Qais Naji Abdul Jabbar Bastris Ahmed; Testing the Principles of Statistics in sport Field, Higher Education Press, Baghdad 1987 .

Hisham Atta Abdul Hussein and others; Anthropometric measurements and their relationship to the performance of football goalkeepers in the Iraqi Stars League, 2023/2024 season , (Proceedings of the Third International Conference - College of Physical Education and Sports Sciences, University of Diyala, 2024).

Bangsbo, J., & Mohr, M. (2012). Fitness testing in football: a systematic review. Bangsbo Sports, 35-42.

Gabbett, T. J., & Mulvey, M. J. (2008). Time-motion analysis of small-sided training games and competition in elite women soccer players. *Journal of Strength and Conditioning Research*, 22(2), 543-552.

Ghaida, F. A. (2024). Some physical and respiratory variables and their relationship to the accuracy of the spike in volleyball. *Indian Journal of Modern Research and Reviews*, 2 (10) .

Memmert , D., & Roca, A. (2019). Tactical creativity and decision making in sport. Routledge, 89-112.

Morris, T., Spittle, M., & Watt, A. P. (2005). Imagery in sport. Human Kinetics, 25-46 .

Reilly, T., & Williams, A. M. (2003). Science and soccer: developing elite performers. Routledge, 2nd edition, 145-162.

Smith, MR, Coutts, AJ, & Fransen, J. (2019).Mental fatigue and soccer: current knowledge and future directions. *Sports Medicine*, 48(7), 1525-1532.

Travassos, B., Araújo, D., & Vilar, L. (2013). Tactical performance in soccer: from information to action. *Journal of Sports Sciences*, 31(8), 819-828 .

Williams, A. M., & Davids, K. (1998). Visual search strategy, selective attention, and expertise in soccer. *Research Quarterly for Exercise and Sport*, 69(2), 111-128.

Williams, A. M., & Jackson, R. C. (2019). Anticipation and decision making in sport. Routledge, 45-67.