

DOING WITHOUT DOING: THE POWER OF MENTAL IMAGERY TRAINING IN INFLUENCING SOCCER PASSING ABILITY AND MENTAL TOUGHNESS OF PLAYERS

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Abstract

The main thrust of this study is to investigate the influence Mental Imagery Training would have on a soccer athlete's soccer passing ability and mental toughness among soccer players in tertiary institutions in Enugu State. The research design was pretest-posttest non-equivalent control group design. The population comprised all the top 64 players in two tertiary institutions in the state; all of whom were used for the study because of the manageable size of the population and as such, there was no need for sampling techniques. The instruments were the McDonald soccer test and the Middleton et al. Mental Toughness Inventory. The face validity of the instruments was achieved with the contributions of experts and the reliability coefficients for the soccer passing ability and mental toughness inventory as computed through the appropriate methods of Pearson Correlation and Cronbach Alpha were 0.70 and 0.74 respectively which were considered high enough for adopting them for the study. Whereas means was used in answering research questions, ANCOVA enabled inference to be made. The result of the study shows that mental imagery training impacts positively on both athletes' soccer passing ability and mental toughness. As a result, it is recommended that apart from sensitizing coaches and players on the imperatives of mental imagery training, the technique should both be regularly practiced, and the practice also regularly monitored to be in tandem with the general training principles.

Introduction

Preparing sports men and women for optimal athletic performance whether at amateur or professional levels entails a lot because what it requires are, but not limited to two major duties, to wit; great deal of scientific sport coaching, and top administrative work. Hence, sport psychologists, coaches, and other stakeholders in the business of taking the performance skills and psychological well-being of their athletes to the next higher levels are increasingly nosing around for scientific procedures for their athletes reaching such

feats. This search even becomes more evident as the concerned sport advances in popularity, for example, soccer which is undoubtedly one of the most popular sports that has arrested the primary attention of people world wide as players, coaches, spectators or even TV viewers. Soccer is a game with many skills including passing skill which means giving the ball to a teammate. It is a utility and indispensable skill because if a team fails to pass accurately, it is bound to be defeated since it cannot score if it does not have the possession. In order that this and other skills be performed at the peak, researchers around the globe have actively attempted studying the soccer players in different areas of sport science, including sport psychology. In this context, psychological skills training research has, according to Thelwell, Greenlees and Weston (2010) emerged as an important tool to support the soccer players in the accomplishment of higher performance.

Imagery happens to be one of such psychological skills that coaches have scampered for many decades to give their athletes a psychological edge over their opponents. Imagery could be conceptualized as “doing without doing”. As much as this may sound meaningless, it is full of meanings because in imagery, all sense organs are recruited in simulating movements in a manner that would have been physically performed (Eze, 2017 p.20). A major stride in the study of mental imagery has led to the two constructs of imagery which are imagery function and imagery ability. In the imagery function perspective, the movement or skill so imaged could serve two functions: cognitive function and motivational function. While the cognitive function of mental imagery relates to how the mental picture of a skill could be influenced, the motivational function relates to how an individual’s feelings and perceptions about his physical resources in performing the skill could be influenced. The mental images in the two functions could either be influenced towards being specific or being general in nature, thus, leading to four functions, two being specific and other two being general in nature, namely; cognitive specific function (i.e. imaging one specific skill), motivation specific (i.e. imaging commitment to achieving one specific skill), cognitive general (i.e. imaging many skills as contained in a performance routine) and motivation general (i.e. imaging commitment to controlling arousal as contained in a performance strategy). Since mastery to an extent predicts arousal, this motivation general was then seen as being too broad and so divisible into two functions – arousal function and mastery function thus leading to Motivation General-Arousal (i.e. imaging of emotional regulation) and Motivation General-Mastery (i.e. imaging overcoming adversity inherent in the sport). The second conceptual aspect of mental imagery is the imagery ability which means the ability to hold the picture in the various imagery functions in a clear, vivid manner for a desired length of time.

Researches have been conducted and concluded on imagery as a predictor of sport performance based on mediating factors like athletic experience, sport type, and performance scope, but the bottom-line of it all is that there seems to be a positive linear relationship between imagery use; performance in sports and well-being of athletes (Hall & Rodgers, 2000). Well-being per se means feelings of happiness and satisfaction with life basically derived from two sources which are subjective source and objective source. While subjective happiness results from peoples’ material conditions such as income and wealth, job, housings and other physical possessions, the subjective happiness derives

from psychological well being which reflects relatively permanent wellness by means of one's personal or human development and psychological functioning such as high levels of optimism, self – esteem, self – efficacy, self – acceptance, perception of success, self – control, self – determination and mental toughness among others. So when psychological well-being is used interchangeably with subjective well-being, what is meant is their commonality of happiness outcomes.

Mental toughness as a component of psychological well-being has been one of the most topical issues in personal development and psychological functioning because with it, one stands his ground in times of adversity in sport or “storms” in real life experiences and persists till reaching the desired goals. This is why according to Gould, Dieffenach and Moffete (2002), it is described in terms of resilience, persistence and dealing successfully with adversity. Parenthetically, Jones, Hanton and Connaughton (2002) defined it as “having natural or developed psychological edge that enables performers to cope with plethora of demands made upon them”. The seven sub-scales of mental toughness have been identified as self-confidence, negative energy control, visualization, imagery control and attitude control. The power of mental imagery lies in its capacity to impact positively not only on an athlete's sports performance (Seif-Barghi, Korde, Memari, Mansournia & Jaladi-Ghoini 2002) but also on his psychological well-being, including the mental toughness (Mleza, 2004; Hall & Rodger, 2000). The more utilitarian value of developing one's mental toughness through the mental imagery especially for those not naturally endowed with it, remains in the fact that all of its seven sub-scales are developed, and each has practically high affinity to other indices of psychological well-being. Like other psychological skill training programs, mental imagery training adopts the three principal phases, namely the Cognitive Phase (learning stage), the Associative Phase (acquisition stage), and the Autonomous Phase (practice stage) (Ikulayo, 2009). How the mental imagery training under these principles could influence the soccer passing ability and mental toughness of soccer players in tertiary institutions in Enugu State essentially provoked this study. In consequence then, the students after undergoing the Mental Imagery Training Program (see Appendix1) were therefore subjected to the McDonald Soccer Test (see Appendix2) in order to determine the influence of the training on their soccer passing ability, and as well to a mental toughness inventory to ascertain their mental toughness scores.

Statement of the Problem

A consensus seems to have emerged among research findings that mental imagery training is an inevitable aspect of athlete's psychological preparation for athletic success and developed indices of psychological well-being, including mental toughness. The trigger for this study is that apart from the nonexistence of similar studies in the area of the present study, those even conducted outside the present study area contain or raise issues that should not be ignored. For example, contrary to the positive relationships between psychological skills training programs (mental imagery inclusive), performance and mental toughness as has been reported in many studies, surprisingly, Blackslee and Goff's (2007) study found no such relationships. This may then create a gap in knowledge about

the pivotal role of mental imagery training program which may lead to the dwindling of both soccer performance and psychological well-being of most soccer players. To address these and similar issues, this study therefore became necessary.

Research Questions

The following questions guided the study:

- (1) What difference exists in the pre-test and post-test mean soccer passing score of soccer players exposed to mental-imagery training program (MITP) and those exposed to normal soccer training routine (NSTR)?
- (2) What difference exists in the pre-test and post-test mental toughness scores of soccer players exposed to mental imagery training program and those exposed to normal soccer training routine?

Research Hypotheses

The following null hypotheses were postulated for the study at 0.05 level of significance.

- (1) The mean gain soccer passing scores of soccer players exposed to mental imagery training program and those exposed to normal soccer training routine will not differ significantly.
- (2) The mean gain mental toughness scores of the soccer players exposed to mental imagery training program and those exposed to normal soccer training routine will not differ significantly.

Methods

The design used for the study was the pretest-posttest non-equivalent control group. The population was the top sixty four (64) soccer players of University of Nigeria, Nsukka and Federal College of Education, Eha-Amufu, all in Enugu State of Nigeria. This was made up of the top 16 (sixteen) male and 16 (sixteen) female soccer players from each of the institutions who were students as at the 2015/2016 academic session, giving the total of 64 (sixty four) as the population. All the sixty-four (64) subjects were used for the study and hence, there was no need for sampling techniques due to the manageable size of the population. The thirty-two (32) soccer players from the Federal College of Education, Eha-Amufu (FCEE) were assigned to treatment group while the other thirty-two (32) soccer players in the University of Nigeria, Nsukka were assigned to the control group. Two instruments were used in collecting the relevant data; the McDonald (1951) soccer test and the 36 item Midleton, Marsh, Richards, Perry and Brown (2011) Mental Toughness Inventory which is a self-report inventory on the various mental toughness characteristics of an individual. It is rated on 8-point scale that indicates how true or false one is mentally tough for each of the statements. Scores of 1 and 2 indicate that the statement does not describe him or that it is not like the one at all; scores of 3 and 4 indicate that the statement is more False than True; scores of 5 and 6 indicate that the statement is more True than False; while the scores of 7 and 8 indicate that the statement perfectly describes the person or that it is very much like the person. The face validity of the instruments were achieved with the contributions of three experts while a relatively high reliability coefficient of 0.70 for soccer passing ability established through the

Cronbach's Alpha Analysis and a relatively high reliability coefficient of 0.74 for the Mental Toughness Inventory established through Pearson's Correlation method were obtained. The data were collected through the help of research assistants who administered appropriate instruments on both the experimental group and the control group respectively. These instruments were administered on them twice; one at the onset of the mental imagery training program (pre-test) and at the end of the program (post-test).

Experimental Procedure

Four research assistants who were mainly Physical education instructors/soccer coaches in the two institutions, two from each of the institutions, were trained on the administration of the McDonald soccer test and Mental Imagery Training procedure prior to pre-testing the subjects to establish the bottom-line of their efficiency in executing the soccer passing skill, using the McDonald soccer test and their dispositions on the mental imagery ability using the Mental Toughness Inventory. Thereafter, the research assistants trained the experimental group on the mental imagery program. The entire training lasted for 8-weeks of two sessions per week, giving a total of 16 training sessions. Each session lasted for two hours spread as follows: skill teaching (Cognitive phase) 45 minutes, skill practice (Associative phase) 45 minutes, and evaluation (Autonomous phase) 30 minutes. In the cognitive phase, the researcher presented to the players the concept of imagery as well as the general principles for effective imagery practice in all aspects of the players' sport involvement using the Hale's (1998) 4R's mental imagery elements. In the associative phase, the researcher practically demonstrated how to use imagery to practice the McDonald soccer test and thereafter allowed the players to practice same. After each of the cognitive and associative phase, the players were appropriately evaluated being the autonomous phase of the training. The control group was also concurrently trained though in their normal soccer training routine used as a placebo training. The control group trained on 8 routine soccer exercises of which 4 were on building physical fitness (e.g. Leg press-double leg, DumLung-Dumbell, step up jumping – Dumbell, and backward zig-zag-to-Turn and Run) and 2 for the development of dribbling ability (e.g. Right turn dribbling, and Left turn dribbling drills) and the other 2 exercises on shooting ability (e.g. penalty box shooting drill and dribbling and shooting drills). Included in the training were warm-up exercises, general soccer game sessions, and closing exercises. At the end of the respective training for the experimental group and the control group, a post-test on soccer passing ability as well as on their mental toughness was again conducted on all of them to enable the researcher compare their baseline scores at the formative stage which revealed the effect of the mental imagery on their soccer passing ability and their mental toughness scores. The scores so collected were used to answer the research questions and analyze the data. While the mean was used in answering the research questions, the ANCOVA enabled inference to be made using the players' pre-test and post-test scores.

Results**Table 1: Mean and Standard Deviation Scores on Passing Soccer Players Exposed to Mental Imagery Training Program (MITP) and these exposed to Normal Soccer Training Routine (NSTR)**

	Pre-test			Post-test			Mean Gain Score
	N	Mean	SD	N	Mean	SD	
MITP	32	5.37	1.34	32	10.22	1.18	4.85
NSTR	32	5.25	1.30	32	5.28	1.46	0.03

As shown in Table 1, the pre-test and post-test mean soccer passing scores of soccer players exposed to MITP were 5.37 and 10.22 and their mean gain score was 4.85. On the other hand, their counterpart exposed to NSTR has pre and post-test mean scores of 5.25 and 5.28 respectively, and a mean gain score of 0.03. The mean gain scores (mean difference between pre and post-test) for soccer players exposed to MITP was greater than the mean difference for those exposed to NSTR. This suggests that MITP was more effective in increasing soccer passing ability among soccer players from tertiary institutions in Enugu State.

Table 2: Mean and Standard Deviation Scores on Mental Toughness of Soccer Players Exposed to MITP and those Exposed to NSTR

	Pre-test			Post-test			Mean Gain Score
	N	Mean	SD	N	Mean	SD	
MITP	32	187.78	24.11	32	223.97	15.62	36.19
NSTR	32	186.81	22.71	32	199.13	23.87	12.32

Table 2 shows the pre and post-test mean mental toughness scores of soccer players that were exposed to MITP to be 187.78 and 222.97 and their mean gain score was 36.19. On the other hand, their counterpart exposed to NSTR had 186.81, 199.13, and 12.32, as mean pre-test, post-test and mean gain score respectively. The mean gain scores of 36.19 and 12.32 indicate that MITP might be more effective in increasing mental toughness among soccer players in tertiary institutions in Enugu State.

Table 3: Summary of Analysis of Covariance (ANCOVA) of Post-test Soccer Passing Scores of Soccer Players Exposed to MITP and those Exposed to NSTR

Source of Variation	Ss	Df	Ms	f	P
Pre-test	36.94	1	36.94	30.87	.000*
Group	380.83	1	380.83	318.23	.000*
Error	72.99	61	1.19		
Total	4344.00	64			

*Significant

The analysis of covariance in table 3 shows that after adjusting for the initial differences between the two groups (experimental and control) using the pre-test scores, there is a significant difference in the post-test mean soccer passing scores of Enugu State tertiary institutions' soccer players exposed to MITP and those exposed to NSTR, $f(1,64)=318.23$, $p<0.05$. The null hypothesis was therefore rejected.

Table 4: Summary of Analysis of Covariance of Post-test Mental Toughness Scores of Soccer Players Exposed to MITP and those Exposed to NSTR

Source of Variation	Ss	Df	Ms	f	P
Pre-test	22070.17	1	22070.17	426.80	.000*
Group	9260.62	1	9260.62	179.08	.000*
Error	3154.29	61	51.71		
Total	2899233.00	64			

*Significant

The result of the ANCOVA displayed in Table 4 shows that after adjusting for the initial differences between the two groups using the pre-test scores, there is a significant difference in the post-test mean mental toughness scores of Enugu State tertiary institutions' soccer players exposed to MITP and those exposed to NSTR, $f(1,64)=179.08$, $p<0.050$. The null hypothesis was therefore rejected.

Discussion

The finding that the Enugu State tertiary institutions' soccer players exposed to the MITP had a significantly higher mean gain soccer passing score than those exposed to the NSTR, seems not surprising since it is in line with most other similar studies. For example, Seif-Barghi, Kordi, Memari, Mansournia and Jaladi-ghoini (2012) who studied the effect of imagery program on soccer performance of the U-16, U-17, U-19, U-21 and above soccer players affiliated with different soccer clubs taking part in the Indian National Champions League found that successful pass rate increased significantly in the intervention group compared to control group. This is further supported by Gould, Dieffenbach and Moffett's (2002) study that examined the psychological characteristics of 10 U.S Olympic Champions and how they developed the characteristics and found that those with outstanding performance had strong psychological skills including mental toughness among others. The Blacklee and Goff's (2007) study that rather found no such significant improvement in performance using psychological skills training program (mental imagery training inclusive) could be attributed to a faulty training program because according to Ikulayo (2009), any psychological skill training must follow the three general principles of cognitive phase, associative phase and autonomous phase. Skipping any of the phases, failure of following the phases in the prescribed order or not training for a comfortable length of time can lead to very little or no improvement at all in sport performance. This therefore underscores the importance of sequential training method and regularity in the training.

Moreover, the finding that the mean gain mental toughness score of those exposed to MITP was significantly higher than the mean gain score of those exposed to NSTR should not cause any worry since it is not out of tune with the findings of other similar studies. For example, Mlezia (2004) who conducted study on the effects of short-term mental skills training on mental toughness revealed there was a significant increase from pre-test to post-test scores for the participants for the mental toughness and perceived self-confidence. Another important reason that gives this finding much credibility is the fact that mental toughness is strongly linked to self-confidence which itself has been shown to improve significantly with most psychological skills training programs. Out of the three identifiable types of self-confidence in sport, mental toughness is strongly related to two of them which are specific cognitive efficiency and sport-confidence resilience. One can then stand to reason that imagery focuses the mind which in turn, toughens the mind since all cognitive energy is directed to the task just like Hall and Rodger (2000) observed that experienced skating coaches confirmed imagery as a very powerful technique which they often use with their athletes to develop mental toughness.

Conclusion and Recommendations

From the findings of this study, it is clear that mental imagery training is a very important program for promoting sports performance and mental toughness of participants since those exposed to the mental imagery training performed better in the soccer passing skill and as well significantly showed greater improvement in the mental toughness index of general psychological well-being than those exposed to just the normal training routine. Therefore, for the fact that very few, if any of the tertiary institutions in the area of this study have trained psychologist-coaches to implement the program, it becomes extremely important that seminars and especially workshops with the theme as “imperatives of Mental Imagery Training Program” be regularly organized for coaches and athletes where expert sport psychologists be made to demonstrate the pivotal role of imagery training program to sports and general personal development. Finally, just as there is the need for regular training of the players on the imagery, so it is for monitoring the progress made. This is because the regular monitoring would determine the direction the program would take in terms of intensity, progression, and overload principles.

References

- Blackslee, M.L. & Goff, D.M. (2007). The effects of mental skills training package on equestrians. *The Sport Psychologist*, 286-301.
- Eze, J. U. (2017). Effects of psychological skills training on soccer performance and psychological well-being of players in tertiary institutions in Enugu State. *Doctoral Dissertation*. Department of Human Kinetics and Health Education, Nnamdi Azikiwe University, Awka, Anambra State.
- Gould, D., Dieffenbach, K. & Moffet, A. (2002). Psychological Characteristics and their Development in Olympic Champions. *Journal of Applied Sport Psychology*, (14) 122-204.
- Hale, B. (1998). *Imagery training*. London: National Coaching Foundation.

- Hall, C. & Rodgers, W. (2000). Enhancing coaching effectiveness in figure skating through mental skills training program. *The Sport Psychologist*, (3), 143-154.
- Ikulayo, P.B. (2009). Psychological skills training for Olympic athletes. In P.B. Ikulayo & G. C. Ilogu (Eds). *Book of reading in sport psychology*. Ibadan: Olu-Akin Publishers.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this called mental toughness: An investigation of elite sport performance. *Journal of Applied Sport Psychology*, 14(3), 205-218.
- McDonald, L. (1951). The construction of a kicking test as an index of general soccer ability. In D. K. Miler (Ed). *Measurement by Physical Education: Why and How* (4th ed.). New York: McGraw-Hill.
- Midleton, S.C.; Marsh, H.W; Martin, A. J; Richards, G.E; Perry, C; & Brown, R (2011). The Psychological Performance Inventory: Is the Mental Toughness Test tough enough? *International journal of sport psychology*, 35,91 - 108
- Mlezia, M.E. (2004). Effects of a short-term mental skill training program on mental toughness. *Electronic Thesis and Dissertations*, paper 84.
- Seif – Barghi, T; Kordi, R.I.; Memari, A.; Mansournia, M, & Jaladi – Ghoini, M. (2002). The effect of an ecological imagery program on soccer performance of elite players. *Asian Journal of Medicine*, 3 (2) 81 – 89.
- Thelwell, R.C., Greenlees, I.A. & Weston, N.J.V. (2010). Using PST to develop soccer performance. *Journal of Sport Psychology*, 18, 254-276.

Appendix 1

The Mental Imagery Training Program (MITP) for Experimental Group

Psychological Skill Intervention	Purpose	Week	Session	Duration 2 hours	Skill teaching (cognitive phase) 45 minutes	Skill Practice (Associative phase) 45 minutes	Evaluation (autonomous phase) 30 minutes
Imagery Training.	To develop in the players the ability to create or re-create movements using the mind's eyes in order that skill performance be perfected with the accompanying psychological well-being.	One (1)	One (1)		The researcher presented to the players the concept of mental imagery as well as explained and described how it is learnt thus; Mental imagery is an experience that mimics real experiences; in other words "seeing" an image, "feeling" movements as an	The players were asked to repeat what the researcher said.	The players were asked the following questions. (i) Define Imagery. (ii) What are the most important requirements for effective imagery use? (iii) State the two categories of imagery.

				image of smell, tastes, or sound without actually experiencing the real thing. The two most important requirements for effective imagery use are the individual's ability to make a vivid image and control it as well as the individuals' high mastery of the skill so imagined. Mental imagery can be segregated into two categories; visual, where one visualizes a particular action, in first and second person, and kinesthetic, where one imagines feelings and sensing the activity from the perspective of the doer. Imagery is purely an internal experience that cannot be visibly demonstrated but can be verbally explained to the players. In this context therefore, the researcher explained the general principles for effective imagery practice in all aspects of their sports involvement using the Hale's (1998) 4R's mental imagery elements. The 4 R's stand for Relaxation,		(iv) What does the Hale's (1998) 4R's mental imagery elements stand for?
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				Realism, Regularity, and Reinforcement. Relaxation: - The mind and body should be relaxed because it is essential in helping to feel the movement patterns and experience any emotions generated. This involves a sort of breathe exercises in a tranquil environment. Realism: - Create imagery so realistic that you believe you are actually executing the skill. In order to obtain the most realistic imagery possible, incorporate definition, action, emotion, detail and a positive result into the imagery exercise. ❖ Definition: - Make the images as vivid as possible, include colour, size, height etc. if possible. ❖ Action: - Breakdown the image into small components and visualize those components. ❖ Emotion: - Try to include emotional feelings in your images. Refresh your memory constantly by		
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					emphasizing specific sensory awareness (e.g Smells, the wind, the temperature) during training. ❖ Detail: - Incorporate as many of your sense as possible into your imagery so that the scene is as clear and realistic as real life itself. ❖ Positive Result: - This is essential, you only achieve what you believe. Regularity: - Spending between 3 and 5 minutes on imagery seems to be most effective. It should be included in training and time outside of training should be spent on imagery for about 10-15 minutes a day. Reinforcement: - The writing of imagery scripts will help you plan the content and timing of your imagery training. In other words, all actions to be taken in the imagery practice should be clearly written down. This is reinforcing.		
Imagery Training.	Same as in week one session one.	One (1)	Two (2)		Same as in week one session one.	Same as in week one session one.	Same as in week one session one.
Imagery Training	Same as in week one session one	Two (2) to	One (1)		Same as in week one session one	Same as in week one	Same as in week one

		three (3)	& two (2)			session one	session one
Imagery Training.	Same as in week one session one.	Four (4)	One (1)		In line with the Hale's 4R's model of imagery practice, the researcher gave them a sample of how to use imagery to practice McDonald soccer Test thus; Relaxation: - Take a comfortable position in a quite place, take few deep and slow breaths; breathing in through the nose and out through mouth. Realism: - ❖ Definition: - Picture your image of kicking a place ball from a distance of 9ft to above white mark on wall, 3ft high. ❖ Action: - Picture the following scenes slowly one after the other; - Your image standing behind a placed ball which is 'blue' in colour. - The white mark on the wall; - Your kicking of the ball; - The Flight of the ball; - The hitting of the ball on the wall a height above the white	The players were asked to demonstrate what the researcher did.	The players were asked to practically image the McDonald Soccer Test using the Hales' 4R's mental imagery elements as effectively as possible.

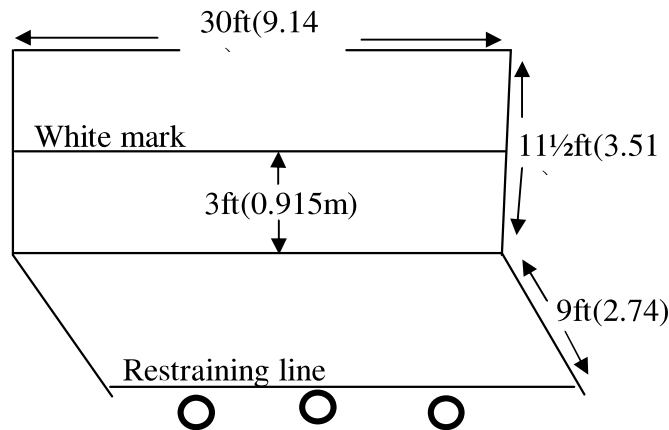
					mark; - The return of the ball to you; and - Your return of the ball to the wall. Emotion, Detail and Positive result: As you kick the ball in your imagery, keep mental awareness which are; - Feel the flexion and extension of your right knee as you kick the ball - Feel the wind, temperature, and smells around - Hear the sound of the ball hitting wall successfully and the cheering of the coach and other onlookers. - Repeat each of these scenes for 5 minutes		
Imagery Training.	Same as in week one session one.	four (4)	Two (2)		Same as in week four session one.	Same as in week four session one.	Same as in week four session one.
Imagery	Same as week one session one	Five (5) to eight (8)	One (1) & two (2) of week five to eight		Same as in week four session one	Same as in week four session one	Same as in week four session one

NOTE: Apart from the skill practice the soccer players did within the scheduled training program, the researcher advised them to extend the practice to periods outside the scheduled time; in other words, they practiced both within the scheduled training periods and at their homes or hostels for eight weeks running.

Appendix 2

McDonald Soccer Test

McDonald Soccer Test is designed to measure general soccer ability, though mainly trapping and trapping skills, and is approximate for most levels.



Faculty and Equipment: A wall 30ft (9.14m) wide and 11½ ft (3.51m) high, with a white mark 3ft(0.915m) high drawn across the wall, 3 soccer balls, and stop watch.

Purpose: To determine the number of times a player can volley the ball within the wall dimension using the leg.

Procedure: A soccer ball is placed on a line marked 9ft (2.7m) from the wall. Another two balls are left 9ft (2.7m) behind the line in center of the test area. On the signal “Go”, the player kicks the ball against the wall as many times as possible in 30 seconds. In the event of a wild ball, the player may either retrieve the original ball or use one of the two balls. It is legal to use hand to retrieve a ball. All kicks must be performed from the ground behind the restraining line. The test is repeated 4 times.

Scoring: The number of kicks in each 30 seconds is recorded, with highest total being an individual’s score on soccer passing ability.