

COMPARATIVE STUDY OF PERCEPTUAL ABILITY AND CREATIVITY ABILITY OF SOCCER PLAYERS PLAYING ON DIFFERENT PLAYING SURFACES

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Abstract

The purpose of the study was to compare grassy surface soccer players and non grassy surface soccer players on selected perceptual and creativity ability. For this purpose 60 soccer players with mean age of 24.6 \pm 1.74 year from Pune city were selected as subjects. Further they were divided into a group of 30 grassy and 30 non grassy surface soccer players. All the subjects participated in this study were practicing and experience of playing in selected surface from sufficient period of time. For measuring the selected variables i.e perceptual ability and creativity ability questionnaires constructed by Dr. Krishnanand Choudhary et al (1989) and Dr. Rajamanichakam (1999) was used. This questionnaire was appropriate as per the objectives of the study and easy to administrate to get the precise responses from the subjects without taking much of their time. Independent "t" was used as a statistical tool to find out the significance difference between the grassy and non grassy surface soccer players. The results of the study indicated that there were statistically insignificant difference were observe in all the selected perceptual and creativity ability.

Keywords: Soccer, Perceptual Ability, Creativity Ability, and Grassy

Introduction

Now a day's sports have become a part and essential of life. Millions of fans follow different sports events all over the world with an enthusiasm bordering on devotion (J.S., Skinner, 1982). Many people participate in sports and games for fun, happiness, pleasure for health and fitness (Peter Arnold, 1972). Increased participation in sports has resulted in competition which has become an important element of modern life. Competitions provide the means by which one can show one's worth by competing successfully (Reuben B. Frost, 1971). All countries try to show their supremacy over each other for a defeat or success in the international sports competitors. The modern game of Soccer puts a great deal of emphasis on the development of fundamental skills because of the fact that in this game a player is required to play in all the positions during a match due

to obligation of the rule and regulation properly. Therefore, a wide variety of techniques have been evolved which have their own and different physical requirements. As a consequence, a player is expected to work on a wide ranging programme designed to improve his strength, speed, power, agility, flexibility etc as the underlying factors of improved techniques. In this modern fast tempo of football, perceptual motor skills, psychological factors, motivations, etc. need thorough assessment and applications in the playing arena. Co-ordination is essential. Thus, any shot is executed by co-coordinating the eyes, feet, body etc. so that the required action takes place smoothly and deliberately with desired results. This is the main motto of the modern coaching or training (J.P. Geert, 2010).

In general, football is played with short periods of high-intensity effort and long periods of low-intensity work. Thus, the training must also be geared to intervals of high intensity (work) low-intensity (recover) workloads for most positions. It is essential that the basic fitness levels should be maintained throughout the year and it is significant that all the seven "S" of sports medicine and science are aptly incorporated in the popular game of football, viz. position wise e.g. i) "Suppleness" in goal-keeper, ii) "Strength" in backs, iii) "Stamina" in half backs, iv) "Endurance" in centre-half, v) "Speed" in centre-forward and wingers, vi) "Skill" in all specialized positions, and vii) "Psychology" in all positions (M, Sushkow Savin, 1957). To become a good footballer a player should have a mastery over Perceptual ability and creativity ability. While performing on different surfaces i.e. grassy, hard, soil and so on this ability has separated but very important impact (Duricek, Milan 1992). A game on grass field is totally different when it is played on non grassy field. Which make the uses of these abilities to some extent in very diverse way so the players can able to perform his games as per the demand of the situation. It is question which needs to be answered that how much both the abilities differentiate on the performance when played on different fields.

Methodology

Out of 750 players from different clubs of Pune city the research scholar had selected only 60 soccer players. Further, they were divided into two group consisted of thirty soccer players of grassy field and thirty players of non grassy field. All the selected soccer players were from I division soccer league of Pune city with the mean age of 24.6 ± 1.74 year. The data were collected on 60 subjects by administering the C.I.P. Time Perception Skill by Dr. Krishnanad Choudhary, Prof. Dhar Sharma and Dr. Santosh K. Verma (from Agra) and Mental Imaginary Questionnaire by Dr. M. Rajaamanickam (from Agra) paper-pencil test. According to time-table of the colleges and the association of respected club of Pune, city data were collected. The research scholar personally contacted and went to selected clubs and colleges place so scholar could clarify the doubt if any regarding the questionnaire and fill up the questionnaire from selected subjects without any problem. The research scholar disturbed 100 questionnaire to the selected subjects out of which 60 questionnaire were filled properly as per the objectives of the study. Rest of the questionnaire was not properly filled up or did not return back to the scholar. Although, research scholar contacted them again but due to some reasons they were not available for response. In these cases these subjects were replaced by other subjects selected randomly from different colleges and clubs. In all, 100 questionnaires were distributed to the subjects, out of which 60 were dully filled up and returned. The filled questionnaires obtained were then analyzed. Independent 't' test was used to find out significant difference between the selected perceptual and creativity ability of grassy and non grassy soccer players.

Results

The data collected on selected soccer players of grassy and non grassy surfaces on perceptual and creativity ability (Visual, Auditory, Gustatory, Olfactory, Tactual, and Bodily) were presented in tabulation form 1-8.

Table-1
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON PERCEPTUAL ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|--------|--------------------|----|---------|
| Grassy Surface | 110.03 | 8.38 | 58 | 0.296 |
| Non Grassy Surface | 109.43 | 7.27 | | |

* Significant at 0.05 level Tab $t_{0.05}(58) = 2.064$

Table-1 shows that the mean value of 30 soccer players of grassy surface was 110.03 and 30 soccer players of

non grassy surface values was 109.43. And the "t" values was 0.296 at the degree of freedom was 58 which was statistically insignificant at $p > 0.05$. Therefore, it is indicated from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to perceptual ability.

Table-2
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON VISUAL ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|-------|--------------------|----|---------|
| Grassy Surface | 66.23 | 5.96 | 58 | 0.747 |
| Non Grassy Surface | 65.00 | 6.79 | | |

* Significant at 0.05 level Tab $t_{0.05}(58) = 2.064$

Table-2 clears that the mean value of 30 soccer players of grassy surface was 66.23 and 30 soccer players of non grassy surface values was 65.00. And the "t" values was 0.747 at degree of freedom 58 which was statistically insignificant at $p > 0.05$. Therefore, it is found from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to visual ability.

Table-3
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON AUDITORY ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|-------|--------------------|----|---------|
| Grassy Surface | 66.86 | 5.61 | 58 | 0.862 |
| Non Grassy Surface | 65.50 | 6.62 | | |

* Significant at 0.05 level Tab $t_{0.05}(58) = 2.064$

It is found in table-3 that the mean value of 30 soccer players of grassy surface was 66.86 and 30 soccer players of non grassy surface values was 65.50. And the "t" values was 0.862 at degree of freedom 58 which was statistically insignificant at $p > 0.05$. Therefore, it is predicted from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to auditory ability.

Table-4
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON GUSTATORY ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|-------|--------------------|----|---------|
| Grassy Surface | 65.70 | 5.12 | 58 | 0.326 |
| Non Grassy Surface | 65.23 | 5.94 | | |

* Significant at 0.05 level Tab $t_{0.05}(58) = 2.064$

It is observed in table-4 that the mean value of 30 soccer players of grassy surface was 65.70 and 30 soccer players of non grassy surface values was 65.23. And the "t" values was 0.326 at degree of freedom 58

which was statistically insignificant at $p>0.05$. Therefore, it is seen from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to gustatory ability.

Table-5
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON OLFACTORY ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|-------|--------------------|----|---------|
| Grassy Surface | 65.56 | 4.54 | 58 | 0.104 |
| Non Grassy Surface | 65.43 | 5.32 | | |

Table-5 depicted, that the mean value of 30 soccer players of grassy surface was 65.56 and 30 soccer players of non grassy surface values was 65.43. And the "t" values was 0.104 at degree of freedom 58 which was statistically insignificant at $p>0.05$. Therefore, it is said from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to olfactory ability.

Table-6
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON TACTUAL ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|-------|--------------------|----|---------|
| Grassy Surface | 67.23 | 4.92 | 58 | 0.973 |
| Non Grassy Surface | 66.03 | 4.62 | | |

* Significant at 0.05 level Tab $t_{0.05}(58) = 2.064$

Table-6 shows that the mean value of 30 soccer players of grassy surface was 67.23 and 30 soccer players of non grassy surface values was 66.03. And the "t" values was 0.973 at the degree of freedom was 58 which was statistically insignificant at $p>0.05$. Therefore, it is proved from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to tactual ability.

Table-7
SIGNIFICANCE DIFFERENCE OF MEAN BETWEEN THE GRASSY AND NON GRASSY SOCCER ON BODILY ABILITY

| Surface | Mean | Standard Deviation | df | t-value |
|--------------------|-------|--------------------|----|---------|
| Grassy surface | 67.60 | 4.67 | 58 | 1.190 |
| Non grassy surface | 66.06 | 5.29 | | |

* Significant at 0.05 level Tab $t_{0.05}(58) = 2.064$

Table-7 indicated that the mean value of 30 soccer players of grassy surface was 67.60 and 30 soccer players of non grassy surface values was 66.06. And the "t" values was 1.190 at the degree of freedom was 58 which was statistically insignificant at $p>0.05$. Therefore, it is proved from the observe value that there was no difference was found between grassy surface players and non grassy surface player in relation to bodily ability.

Observations and Findings

The modern soccer match has become exceedingly intensive and strategically very complex in addition to this the game became non inevitable. To perform well player must be equipped with various physical and psychological variables which are demand of today's games (Behncke (2011), Dhingra, Manhas and Kohli (2010). The perceptual ability where an individual perform activity without seen the object and just on the basis of his imagination like heading, jumping, heading, kicking, diving etc which are very frequent in the game. Most of the successful soccer players are having superior perceptual ability so they can able to execute the skills at nail beating level. In unpredictable situation the individual always reinforce to act as quickly as possible which mean one should be creative in nature. High demanding game of soccer is full of all these ability. Vanttinen, Blomqvist and Häkkinen (2010) found ball games are consists of perceptual and creativity ability which is supported by (Clare and Sue (2009), Memmert (2007). With the availability of different surface to play makes the game more interesting and fast in contrast to the previous time (M.D Bartlett, et al 2009). Directly or indirectly this brings the change in the perceptual and creativity ability of soccer players. This creates a gap of knowledge which needs to be filling in the form of research topic. That why, research scholar conceptualized this study with framing certain objectives to bridge a gap in this. As observed, from the statistical calculation there were insignificant difference were found in all the selected perceptual ability and creativity abilities (visual, auditory, gustatory, olfactory, tactual and bodily) as the calculated "t" value were 0.27, 0.75, 0.86, 0.32, 0.104, 0.973 and 1.19 respectively between the grassy surface soccer players and non grassy surface soccer players at the degree of freedom was 58 which was statistically insignificant at $p>0.05$. It is to be said that the insignificant difference between the grassy surface soccer players and non grassy surface soccer players might be due to the subjects selected of the study. The subjects selected were from top clubs of Pune soccer I division league although they are practicing on selected surface but throughout the year they played tournament, championship and league on the both the surface .i.e. grassy and non grassy because of this they are habitual of playing on both the surfaces. Even, the selected soccer players for this study were professional and having good expertise over the soccer skills which mean that differ in surface would not have very much influence on their performance (Daniel, Memmert,, et.al. (2007).

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