EFFECT OF INDIVIDUALIZED AND COMBINED TRADITIONAL TRAINING AND VISUAL TRAINING AT ALTITUDE ON SELECTED FUNDAMENTAL SKILLS OF SCHOOL LEVEL FOOTBALL PLAYERS

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Abstract

The purpose of the study is to find out the effect of individualized and combined traditional training and visual training at altitude on selected fundamental skills of school level football players.   One hundred and twenty male inter-school football players studying in various school in munnar, Kerala state, in India were randomly selected as subjects. The range of the age of the players used as subjects in the present study was between12 and 15 years. The selected subjects were divided into four equal groups consisting of fifteen in each. Experimental group 'A' underwent traditional training programme and Experimental group 'B' underwent visual training programme, Experimental group 'C' underwent combination training programme and group 'D' called as control group for a period of twelve weeks. The control group was not exposed to any specific training apart from their regular routine. All the subjects were tested on selected variables, before and after the treatment. They have high potential and greater ability in football. The researcher proposed to collect data from these subjects as the scores would be more applicable to the study. The following fundamental skill variables like passing and dribbling were selected as the variables. The collected data were statistically analysed by using analysis of covariance. The scheffe's test was used as a post hoc test to determine which of the paired means differ significantly. The result reveals that there is a significant difference between the experimental groups and the control group on the selected fundamental skill variables.

Key words: Individualized, traditional training and visual training.

Introduction

Sports training is a conscious human activity; also it is a goal oriented activity. Sports training tries to study the effect of training on sports performance and to use it for better training and for better preparation of sports person for competitions. It is a basic form of preparation of sports person for a particular goal. It is based on the scientific knowledge, and it's a planned and controlled process .Sports training is a process of preparing of a person for improving his/her performance through various methods not only through physical exercises. Sports' training also fulfils an important didactical task for the professional preparation of coaches and players. Sports training is important not only in performance sports, its equally important for the various other areas of training because sports training is considered towards the development of fitness and health also. "Sports training is a scientifically based and pedagogically organised process which through planned and systematic effect on performance ability and performance readiness aims at sports perfection and performance improvement as well as at the contest in sports competition (Thiess and Schnabel, 1986).

The traditional training can be defined as a long established custom followed by the society of by the coaches to teach/train the sports. The world traditional training can be explained as a system of training that is already implemented and followed by coaches or Physical education teachers to train sports. There are various traditional methods are available in the world some of them are circuit training, interval training, flat leg training etcetera. These training methods are widely used by coaches to train players. For team training or specific training coaches develop their own modules or training plans by following the basic principles of sports training. So these are also can be called as traditional training because they follow almost same Pattern on the basic of sports training principles.

Indian sports and games have got a rich culture and heritage. Combat sports events namely Kalari and wrestling (Indian style) were the major sports in India. We were following traditional methods for training those events.

In soccer training the coaches and trainer follow various methods, they may follow the system already been developed by some on or they will develop a system based on the sports training principles. most of the traditional training methods in India are a kind of combination of various training methods .It include fitness + Skill+ playing ability oriented training method. The purpose of the study is to find out the combined and individualized effect of traditional training and visual training at high altitude on selected motor fitness variables of school level football players.

Materials and methods

The purpose of the study is to find out the effect of individualized and combined traditional training and visual training at altitude on selected fundamental skills of school level football players.

Selection of subjects

One hundred and twenty male inter-school football players studying in various school in munnar, Kerala state, in India were randomly selected as subjects. The range of the age of the players used as subjects in the present study was between 12 and 15 years. All the subjects have been participating in the Inter-school, Inter-District and District league and other tournaments in their respective centers. The Inter-School players were well-versed in the skills of the game. The selected subjects were divided into four equal groups consisting of fifteen in each. Experimental group 'A' underwent traditional training programme and Experimental group 'B' underwent visual training programme, Experimental group 'C' underwent

combination training programme and group 'D' called as control group for a period of twelve weeks. The control group was not exposed to any specific training apart from their regular routine. All the subjects were tested on selected variables, before and after the treatment. They have high potential and greater ability in football. The researcher proposed to collect data from these subjects as the scores would be more applicable to the study.

Selection of variables

The following fundamental skill variables like passing and drabbling were selected as the variables. The following standardized tests were used to measure the fundamental skill variables namely, passing and dribbling was measured by Robert M.Malina et.al., (2005) Football skill test.

Statistical analysis

In the present study the data were analysed in two parts. (a) in order to analysis the training effects of each group on selected fundamental skill variables "t" ratio was used. (b) In order compare the effect of treatment on selected fundamental skill variables among the four groups, analysis of covariance was used. Whenever, the 'F' ratio for adjusted post-test was found to be significant to determine which of the four paired means significantly differed, the Scheffe's test was applied. In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypothesis.

Results and Discussion

TABLE – I
SIGNIFICANCE OF MEAN GAINS / LOSSES BETWEEN PRE TEST AND POST TEST ON SELECTED VARIABLES OF TRADITIONAL TRAINING GROUP

S.No	Variables	Pre test Mean (±SD)	Post test Mean (±SD)	MD	SE	't' ratio
1	Passing	4.16 (2.55)	5.06 (2.19)	0.90	0.38	2.34*
2	Dribbling	12.29 (0.57)	11.96 (0.72)	0.33	0.07	4.17*

An examination of table – I indicates that the obtained 't' ratio are 2.34 and 4.17 for passing and dribbling respectively. The obtained 't' ratio on the selected variables are found to be greater than the

required table value of 2.04 at 0.05 level of significance for 29 degrees of freedom. So it is found to be significant.

TABLE – II

SIGNIFICANCE OF MEAN GAINS / LOSSES BETWEEN PRE TEST AND POST TEST ON SELECTED VARIABLES OF VISUAL TRAINING GROUP

S.No	Variables	Pre test Mean (±SD)	Post test Mean (±SD)	MD	SE	't' ratio
1	Passing	3.20 (2.65)	4.10 (2.85)	0.90	0.38	2.34*
2	Dribbling	12.29 (0.61)	11.51 (0.87)	0.78	0.20	3.91*

An examination of table – II indicates that the obtained 't' ratio are 2.34 and 3.91 for passing and dribbling respectively. The obtained 't' ratio on the selected variables are found to be greater than the required table value of 2.04 at 0.05 level of significance for 29 degrees of freedom. So it is found to be significant.

TABLE – III

SIGNIFICANCE OF MEAN GAINS / LOSSES BETWEEN PRE TEST AND POST TEST ON SELECTED VARIABLES OF COMBINATION GROUP

S.No	Variables	Pre test Mean (±SD)	Post test Mean (±SD)	MD	SE	't' ratio
1	Passing	2.66 (2.03)	6.13 (1.88)	3.46	0.44	7.76*
2	Dribbling	12.56 (0.67)	11.27 (1.04)	1.29	0.20	6.21*

An examination of table – III indicates that the obtained 't' ratio are 7.76 and 6.21 for passing and dribbling respectively. The obtained 't' ratio on the selected variables are found to be greater than the required table value of 2.04 at 0.05 level of significance for 29 degrees of freedom. So it is found to be significant.

TABLE – IV

SIGNIFICANCE OF MEAN GAINS / LOSSES BETWEEN PRE TEST AND POST TEST ON SELECTED VARIABLES OF CONTROL GROUP

S.No	Variables	Pre test Mean (±SD)	Post test Mean (±SD)	MD	SE	't' ratio
1	Passing	3.40 (2.25)	3.43 (2.11)	0.04	0.22	0.15
2	Dribbling	12.26 (0.57)	12.32 (0.61)	0.04	0.06	0.78

An examination of table – IV indicates that the obtained 't' ratio are 0.15 and 0.78 for passing and dribbling respectively. The obtained 't' ratio on the selected variables are found to be lesser than the required table value of 2.04 at 0.05 level of significance for 29 degrees of freedom. So it is found to be not significant.

TABLE – V
ANALYSIS OF COVARIANCE FOR THE PRE TEST POST TEST
AND ADJUSTED POST TEST MEANS ON PASSING OF
EXPERIMENTAL AND CONTROL GROUPS

Test	Experimental Group-'A' (Points)	Experimental Group-'B' (Points)	Experimental Group-'C' (Points)	Control Group (Points)	Source of variance	Sum of square	df	Mean square	'F' ratio
Pretest Mean SD(±)	4.16 (2.55)	3.20 (2.65)	2.66 (2.03)	3.40 (2.25)	B.M	34.75	3	11.58	2.03
					W.G	660.83	116	5.69	
Post test Mean SD(±)	5.06 (2.19)	4.10 (2.85)	6.13 (1.88)	3.43 (2.11)	B.M	124.56	3	41.52	7.90*
					W.G	609.40	116	5.25	
Adjusted Post test Mean	4.55	4.18	6.54	3.28	B.S	167.82	3	55.94	17.49*
					W.S	367.72	115	3.19	

B.M. –Between means   W.G. – Within groups   B.S. – Between sets W.S. – Within sets   *Significant at 0.05 level of confidence.

(The table values required for significance at 0.05 level of confidence for 3 & 116 and 3 & 115 are 2.68 and 2.68 respectively).

Table – V shows that the pre-test mean values on passing of traditional training group, visual training group, combination training group and control group are 4.16, 3.20, 2.66 and 3.40 respectively. The obtained 'F' ratio 2.03 for pre-test scores is less than the table value 2.68 for df 3 and 116 required for significance at 0.05 level of confidence on passing. The post-test mean values on passing of traditional training group, visual training group, combination training group and control group are 5.06, 4.10, 6.13 and 3.43 respectively. The obtained 'F' ratio 7.90 for post-test scores is greater than the table value 2.68 for df 3 and 116 required for significance at 0.05 level of confidence on

passing. The adjusted post-test means of traditional training group, visual training group, combination training group and control group are 4.55, 4.18, 6.54 and 3.28 respectively. The obtained 'F' ratio of 17.49 for adjusted post-test means is greater than the table value of 2.68 for df 3 and 115 required for significance at 0.05 level of confidence on passing. The results of the study indicated that there is a significant difference among the adjusted post-test means of traditional training group, visual training group, combination training group and control group on passing.

TABLE – VI
SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS
ON PASSING

Experimental Group-'A' (Traditional training group)	Experimental Group-'B' (Visual training group)	Experimental Group-'B' (Combination training group)	Control Group	Mean Difference	Required C.I
4.55	4.18	--	--	0.37	
4.55	--	6.54		1.99*	
4.55	--	--	3.28	1.27*	1.24
--	4.18	6.54	--	2.36*	
--	4.18	--	3.28	0.09	
--	--	6.54	3.28	3.26*	

Significant at 0.05 level of confidence.

Table VI shows that the mean difference values between traditional training group and visual training group; traditional training group and combination group: traditional training group and

control group, visual training group and combination training group, visual training group and control group; and between combination training group and control group are 0.37, 1.99,

1.27, 2.39, 0.09 and 3.26 respectively. When the control group, experimental groups compared with each others, the mean difference is 1.99, 1.27, 2.36 and 3.26 which are significant at 0.05 level of confidence. Hence, there is significant difference between control and experimental group in passing among football players. However, the mean difference between the two experimental groups was 0.37 and 0.09 which is not significant at 0.05 level of confidence. It may be concluded from the results that there is a significant difference between adjusted post test means among the experimental groups and control group. The results of the study show that there is a significant difference between traditional training group, combination training group; traditional training group and control group, visual training group and combination training group, and combination training group and control group on passing. The pre test, post test and adjusted post test means values of traditional training group, visual training group, combination training group and control group on passing are graphically represented in the Figure – 1.
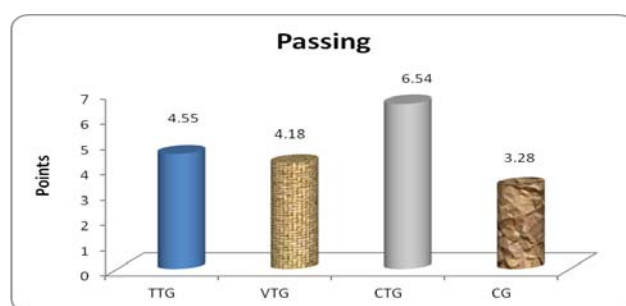

FIGURE – 1

ADJUSTED POST TEST MEAN VALUES OF TRADITIONAL TRAINING GROUP VISUAL TRAINING GROUP COMBINATION TRAINING GROUP AND CONTROL GROUP ON PASSING
TABLE – VI
ANALYSIS OF COVARIANCE FOR THE PRE TEST POST TEST AND ADJUSTED POST TEST MEAN ON DRIBBLING OF EXPERIMENTAL AND CONTROL GROUPS

Test	Experimental Group-'A' (Seconds)	Experimental Group-'B' (Seconds)	Experimental Group-'C' (Seconds)	Control Group (Seconds)	Source of variance	Sum of square	df	Mean square	'F' ratio
Pre test Mean SD($\pm$)	12.29 (0.57)	11.96 (0.72)	12.56 (0.67)	12.26 (0.54)	B.M	1.78	3	0.59	1.62
					W.G	42.40	116	0.36	
Post test Mean SD($\pm$)	11.96 (0.72)	11.51 (0.87)	11.27 (1.04)	12.51 (0.61)	B.M	19.78	3	6.60	9.45*
					W.G	80.87	116	0.70	
Adjusted Post test Mean	11.98	11.54	11.17	12.36	B.S	23.78	3	7.92	12.73*
					W.S	71.59	115	0.63	

B.M. –Between means   W.G. – Within groups   B.S. – Between sets   W.S. – Within sets   **Significant at 0.05 level of confidence.***

(The table values required for significance at 0.05 level of confidence for 3 & 116 and 3 & 115 are 2.68 and 2.68 respectively).

Table – VI shows that the pre-test mean values on dribbling of traditional training group, visual training group, combination training group and control group are 12.29, 11.96, 12.56 and 12.26 respectively. The obtained 'F' ratio 1.62 for pre-test scores is less than the table value 2.68 for df 3 and 116 required for significance at 0.05 level of confidence on dribbling. The post-test mean values on dribbling of traditional training group, visual training group, combination training group and control group are 11.96, 11.51, 11.27 and 12.51 respectively. The obtained 'F' ratio 9.45 for post-test scores is greater than the table value 2.68 for df 3 and 116 required for significance at 0.05 level of

confidence on dribbling. The adjusted post-test means of traditional training group, visual training group, combination training group and control group are 11.98, 11.54, 11.17 and 12.36 respectively. The obtained 'F' ratio of 12.73 for adjusted post-test means is greater than the table value of 2.68 for df 3 and 115 required for .

significance at 0.05 level of confidence on dribbling. The results of the study indicated that there is a significant difference among the adjusted post-test means of traditional training group, visual training group, combination training group and control group on dribbling

TABLE – VII
SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON DRIBBLING

Experimental Group-'A' (Traditional training group)	Experimental Group-'B' (Visual training group)	Experimental Group-'B' (Combination training group)	Control Group	Mean Difference	Required C.I
11.98	11.54	--	--	0.44	
11.98	--	11.17		0.81*	
11.98	--	--	12.36	0.38	0.55
--	11.54	11.17	--	0.37	
--	11.54	--	12.36	0.82*	
--	--	11.17	12.36	1.19*	

Significant at 0.05 level of confidence.

Table VII shows that the mean difference values between traditional training group and visual training group; traditional training group and combination group: traditional training group and control group, visual training group and combination training group, visual training group and control group; and between combination training group and control group are 0.44, 0.81, 0.38, 0.37, 0.82 and 1.19 respectively. When the control group and experimental groups compared with each other, the mean difference is 1.81, 0.82 and 1.19 which are significant at 0.05 level of confidence. Hence, there is significant difference between control and experimental group in dribbling among football players. However, the

mean difference between the two experimental groups was 0.44, 0.38 and 0.37 which is not significant at 0.05 level of confidence. It may be concluded from the results that there is a significant difference between adjusted post test means among the experimental groups and control group. The results of the study show that there is a significant difference between traditional training group, combination training group, visual training group and control group, and combination training group control group on dribbling. The pre test, post test and adjusted post test means values traditional training group, visual training group, combination training group and control group on dribbling are graphically represented in the Figure – 2.
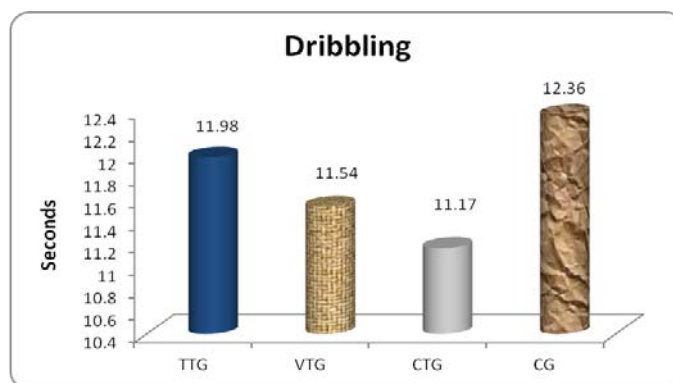
FIGURE – 2
ADJUSTED POST TEST MEAN VALUES OF TRADITIONAL TRAINING GROUP VISUAL TRAINING GROUP COMBINATION TRAINING GROUP AND CONTROL GROUP ON DRIBBLING

FINDINGS AND CONCLUSIONS

The prime intention of the researcher is to analyse the traditional training, visual training and combination training at high altitude on selected fundamental skill variables of school level football players.

The results of the study indicated that the experimental groups namely traditional training group, visual training group, combination training group had significantly influenced on fundamental skill variables namely passing and dribbling as both experimental groups had undergone systematic training over 12 weeks duration. The control group had not shown significant improvement on any of the selected variables as they have not subjected to any of the specific training/conditioning similar to that of experimental groups. Hence it is understood that the selected training means had influenced on the criterion variables.

The results of the study indicate that the traditional training group, visual training group, combination training group showed significant improvement in performance level in all the selected fundamental skill variables when compared with control group. Hence, twelve weeks of traditional training group, visual training group, combination training group showed considerable improvement in passing and dribbling of football players in experimental groups.

At the same time when the three experimental groups were compared, combination of training group showed better performance than the other two training group. Hence, combined training group have influenced performance level of football players. The results agree with the study done by Darlene, Kluka and Duane Knudson (1991) The findings of the study is in par with the literatures that influence impact of vision and visual training programme helps to improve performance of a fundamental skills. The results agree with the studies done by Ashraf (2008) which proved that the specific training programme improved the fundamental skill of the sports players.

CONCLUSIONS

From the analysis of the data, the following conclusions are drawn,

1. The traditional training, visual training and the combination training groups had shown a significant improvement in all the selected fundamental skill variables of male football players.
2. The control group had not shown significant changes in all the selected fundamental skill variable of male football players.
3. The results of the study showed that there is a significant difference among the adjusted post test means of the experimental groups in the selected fundamental skill variable of male football players.
4. The results of the study showed that the combination of traditional training and visual training group is better than the visual training group, traditional training and control groups in the selected fundamental skill variable of male football players. The results indicate that the improvement in all the selected variables is due to the impact of combination training programme.
5. The results of the study showed that the visual training group is better than the traditional training group and control group in the selected fundamental skill variable of male football players. The results indicate that the improvement in all selected variables is due to the impact of visual training programme.
6. The results of the study showed that the traditional training group is better than the control group in the selected fundamental skill variable of male football players. The results indicate that the improvement in all selected variables is due to the impact of traditional training programme.

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