EFFECTS OF SAQ TRAINING ON SPECIFIC MOTOR ABILITIES OF SELECTED SCHOOL LEVEL SOCCER PLAYERS
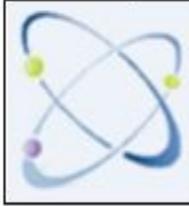
Dr.Sujith S	Guest Faculty, Dept. of Physical Education, S.S.U.S., Kalady
Dr.Dhinu M. R	Deputy Director & Head, Dept. of Physical Education, S.S.U.S., Kalady
Mr.Prajishkumar P	Guest Faculty, Dept. of Physical Education, S.S.U.S., Kalady

ABSTRACT

The purpose of the study was to analyse the effect of SAQ training on selected variable among school boys. It had the purpose of comparing and analysing the data collected from each variable during pre and post-test. For the purpose of the study, twenty boy students of 17 to 19 years old were selected as subjects for the investigation. These students were started SAQ training in Vocational higher secondary School, Irimpanam, Ernakulam. The pre-test was administrated by researcher during their first week of training and post-test were administrated after three weeks of training. . The selected variables for the study were Speed, Agility and Quickness. The test administrated to assess the speed, agility and quickness, 50 m dash (to assess the speed) Shuttle run (to assess the agility) and choice response test (to assess the quickness).. The test was about the effect of SAQ training for three weeks. A pre-test and post-test score of the experimental group and controlled group were analysed by employing the T-test. To find out the significance of difference between pre-test and post-test score of the experimental group and controlled group, the t-ratio was employed. The result of the study supported the hypothesis that there would be significant difference in the speed, agility and quickness of subjects as a result of three weeks of SAQ training programme is accepted since it was indicated that t-ratio obtained from pre-test and post test scores of the experimental group is speed- 5.00, agility- 3.26 and quickness- 4.36. This value was significant as it was greater than the t-value of 2.101 requires for the significance at 0.05 levels and the controlled group is speed- .677, agility- .625 and quickness- 33. This value was not significant as it was lesser than the t-value of 2.101 require for the significance at 0.05 level.

I. INTRODUCTION

The aim of education should be to teach us rather how to think, than what to think-rather to improve our minds, so as to enable us to think for ourselves, than to load the memory with the thoughts of other men. Bio motor abilities are the foundations of ability of an individual to perform an exercise – speed, agility and quickness. The contribution of the bio motor abilities to the attainment of high performance are determined by 2 factors; the ratio between them as a reflection of the specifics of the sport and, by the level of development of ability according to its degree of participation in performing the sport/event. Agility for sport teaches the athlete the best method and techniques to move with the greatest speed and the greatest quickness, with the least amount of wasted movements and actions. There is a direct correlation between improved agility and the development of athletic timing, rhythm, and movement. Agility is the ability to change direction without the loss of speed, strength, balance, or body control. So many athletes and coaches search for improvement and look for methods to improve their agility in their particular sport. In soccer, the agility helps to run, block, and tackle; in basketball, it is the ability to get open for the shot, the steal, the rebound; in volleyball, it is the ability to spike, and save; similar athletic prowess is applauded in tennis, wrestling, and other sports. The main thing is the display of the remarkable skills of agility.   Three omponents

of soccer that can be improved through plyometric training are speed, agility, and quickness (SAQ). If coaches are using these kinds of exercises they could improve their teams' performance by easily adding some simple exercises at the appropriate time.

II .METHODS AND MATERIALS

Sample:

For the purpose of this study, twenty male soccer players from Vocational Higher Secondary School, Irimpanam,Ernakulam District, Keralawere selected as subjects. The subject's ages ranged from 17 to 19 yrs.

Variables:

A set of variables was selected to test on the selected subjects, for observing the variations in their levels due to the training effect. The variables selected and tested were Bio-motor abilities such asSpeed, Agility and Quickness.

Test and procedure:

Table 1: Tests Selection

S. No	Criterion variable	Test items	Unit of Measurements
1	Speed	30 meters dash	Seconds
2	Agility	Shuttle run	Seconds
3	Quickness	Choice-response test.	Seconds

TRAINING SCHEDULE:

Table 2: saq training exercises

EXERCISES	LOW INTENSITY	MEDIUM INTENSITY	HIGH INTENSITY
1	Butt-kicks	High knee forward	Ladder speed run
2	High knee forward	High knee side ward	Run over micro hurdle
3	High knee side ward	Ladder speed run	------------------------
4	Fall running starts	Run over micro hurdle	Partner resisted run
5	Zigzag run forward	Zigzag run forward	Ladder zigzag cross over
6	Zigzag run side ward	Zigzag run side ward	Figure eight
7	Zigzag run back ward	Ladder zigzag cross over	z- pattern run
8	s- drill	s- drill	------------------------
9	Rope skipping	Single leg rope skipping	

10	In place angle jump	Cross lateral skaters	Cross lateral skaters
11	Scissors jump	Scissors jump	------------------------
12	Lateral skaters	Lateral skaters	Single leg hop

Table 3: low intensity saq training program for soccer players (first one weeks of training)

DAYS	SUN	MON	TUE	WEN	THE	FRI	SAT
MORN	Rest	SAQ training program	active rest	SAQ training program	active rest	SAQ training program	active rest
REP/ SETS	-----	12 x 2	miner game	12 x 2	miner game	12 x 2	miner game

Table 4: medium intensity saq training program for soccer players (second one weeks of training)

DAYS	SUN	MON	TUE	WEN	THE	FRI	SAT
MORN	Rest	SAQ training	active rest	SAQ training	active rest	SAQ training	active rest
REP/ SETS	------	12 x 3	miner game	12 x 3	miner game	12 x 3	miner game

Table 5: high intensity saq training program for soccer players (third one weeks of training)

DAYS	SUN	MON	TUE	WEN	THE	FRI	SAT
MORN	Rest	SAQ training	active rest	active rest	SAQ training	active rest	active rest
REP/ SETS	------	8 x 4	miner game	miner game	8 x 4	miner game	miner game

Data of the selected bio-motor abilities were collected as per the method prescribed in test administration one day prior to the commencement of training (pre-test) and two days after the completion of training (post-test). The de training effect had measured after the two weeks of training. For the purpose of collection of data, the subjects were asked to report early

SCORING AND ANALYSIS:

The bio motor variables (dependent variables) selected for the study were speed, agility and quickness. Thus data collected on the above variables from twenty soccer players were fit into two equal groups. Hence Analysis of covariance (T-TEST) was applied for find out the significance level. In all conditions the significant level was fixed at 0.05 levels, which was considered to be appropriate since the nature of this study does not demand more stringent level of significant.

Table 6: the significance difference between pre-test mean and post test mean of the experimental group on speed

Group	Pre-test mean	Post-test mean	DM	—DM	T ratio
Experimental group	6.059	5.994	.065	.013	5.00

*Significant at .05 level
t .05 (18) = 2.101

An observation of table 6 indicates that t-ratio obtained from pre-test and post test scores of the experimental group is 5.00. This value was significant as it was greater than the t-value of 2.101 require for the significance at 0.05 level.

Table 7: the significance difference between pre-test mean and post test mean of the experimental group on agility

Group	Pre-test mean	Post-test mean	DM	—DM	T ratio
Experimental group	12.189	12.059	.132	.04	3.26

*Significant at .05 level
t .05 (18) = 2.101

An observation of table 7 indicates that t-ratio obtained from pre-test and post test scores of the experimental group is 3.26. This value was significant as it was greater than the t-value of 2.101 require for the significance at 0.05 level.

Table 8: the significance difference between pre-test mean and post test mean of the experimental group on quickness

Group	Pre-test mean	Post-test mean	DM	—DM	T ratio
Experimental group	1.717	1.659	.061	.0139	4.36

*Significant at .05 level
t .05 (18) = 2.101

An observation of table 8 indicates that t-ratio obtained from pre-test and post test scores of the experimental group is 4.36. This value was significant as it was greater than the t-value of 2.101 require for the significance at 0.05 level.

Table 9: the significance difference between pre-test mean and post test mean of the controlled group on speed

Group	Pre-test mean	Post-test mean	DM	—DM ○	T ratio
Controlled group	6.177	6.173	.004	.0059	.677

*Significant at .05 level
t .05 (18) = 2.101

Analysis of the table 9 shows that the t-ratio obtained from the pre-test and the post-test score of the controlled group, the indicated t value is not significant as it was lower than the t-value of 2.101 require for the significance at 0.05 levels.

Table 10: the significance difference between pre-test mean and post test mean of the controlled group on agility

Group	Pre-test mean	Post-test mean	DM	—DM ○	T ratio
Controlled group	12.249	12.253	.004	.0064	.625

*Significant at .05 level
t .05 (18) = 2.101

An analysis of the table 10, the t-ratio obtained from the pre-test and the post-test score of the controlled group, the indicated t value is not significant as it was lower than the t-value of 2.101 require for the significance at 0.05 levels.

Table 11: the significance difference between pre-test mean and post test mean of the controlled group on quickness

Group	Pre-test mean	Post-test mean	DM	—DM ○	T ratio
Controlled group	1.712	1.714	.002	.006	.33

*Significant at .05 level
t .05 (18) = 2.101

An analysis of the table 4.6 the t-ratio obtained from the pre-test and the post-test score of the controlled group, the indicated t value is not significant as it was lower than the t-value of 2.101 require for the significance at 0.05 levels.

III .DISCUSSION AND CONCLUSIONS

The finding of the study revealed that the experimental group (SAQ trainees), improved significantly from pre to post test means on the variables speed, agility and quickness, whereas there was no significant difference on the controlled group. Scientifically and systematically monitored SAQ training programmes are expected to improve overall development of individuals in general and improve speed, agility and quickness in specific. The three week SAQ training involved exercises namely butt-kicks, high knee forward, ladder speed run, high knee side ward, run over micro hurdle, run over micro hurdle, partner resisted run, zigzag run forward, ladder zigzag cross over, zigzag run side ward, z-pattern run, zigzag run back ward, s- drill, rope skipping, single leg rope skipping, scissors jump ,lateral skaters, cross lateral skaters, single leg hop. The result of the study supported the hypothesis that there would be significant difference in the speed, agility and quickness of subjects as a result of three weeks of SAQ training programme is accepted since it was indicated that t-ratio obtained from pre-test and post test scores of the experimental group is speed- 5.00, agility- 3.26 and quickness- 4.36. This value was significant as it was greater than the t-value of 2.101 require for the significance at 0.05 level and the controlled group is speed- .677, agility- .625 and quickness- 33. This value was not significant as it was lesser than the t-value of 2.101 require for the significance at 0.05 level.

REFERENCES

[1] B.Beattie, et.al Physical Education: Complete Lesson Plans for Children, 1st edition. Human Kinetics, 2006-2007.

[2] T.D.Fahey et.al Core concepts and Labs in Physical Fitness and Wellness, (2nd Ed.). 1997.

[3] RemcoPolman, Jonathan Bloomfield, and Andrew Edwards. Effects of SAQ Training and Small-Sided Games on Neuromuscular Functioning in Untrained Subjects. International Journal of Sports Physiology and Performance, 2009, 4, 494-505.

[4] Hill Sendager, D.R.., M.H. Strow and K.J. Ackerman. (1967). "Comparison of Speed Strength and Agility Exercise in the Development of Agility", Research Quarterly

[5] Dawson, B. Speed, agility and quickness in football. World Congress on Science and Football-5: Book of abstracts. Lisbon: Faculty of Human Kinetics, Technical University of Lisbon. 2003.

[6] C Kotzamanidis et.al, The effect of a combined high-intensity strength and speed training program on the running and jumping ability of soccer players. Department of Physical Education and Sport Science, Aristotle University, Thessaloniki, Greece. kotzaman@phed.auth.gr

[7] B.Beattie, et.al Physical Education: Complete Lesson Plans for Children, 1st edition. Human Kinetics, 2006-2007.