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EFFECT OF 12 WEEKS SAQ TRAINING PROGRAMME ON SELECTED SKILL PERFORMANCE VARIABLES OF YOUTH BASKETBALL PLAYERS

Arts

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ABSTRACT

Speed Agility Quickness (SAQ) is used in basketball games to improve a player's ability to perform various ranges of movement, better coordinating the body and the brain. SAQ training are definitely highly desirable in both team and individual sports specifically in intermittent games like Basketball which is about 20% aerobic and 80% anaerobic in nature (Brittenham, 1996). To achieve the purpose of the study, one hundred and ninety two (N = 192) basketball players were selected as subjects from the qualified teams of the pre quarter finals in the inter CBSE school tournament Bangalore, Karnataka in the academic year 2014-2015. Finally forty youth basketball players were randomly selected as subjects for the present study. They were divided into two equal groups. Each group consists of 20 subjects. The subjects selected for this study were hailed from various socio-economic conditions. Their age was fixed in the range of 15 – 17 years. The researcher had been selected the following variables for the present study: skill performance variables namely dribbling and passing ability. The data was collected before and after twelve weeks of training. The collected data was analyzed by using't' test and applying Analysis of Co-Variance (ANCOVA) Technique. The level of significance was fixed at 0.05.The findings of the present study have strongly indicates that 12 weeks of S.A.Q. training have significant effect on selected skill performance variables i.e., dribbling and passing ability of youth basketball players.

KEYWORDS

Speed, Agility, Quickness, Basketball, Dribbling and Passing ability.

INTRODUCTION

Basketball is a very demanding and physically challenging game. Today the ability of players has far exceeded the limits of the game put on it by the original inventors. The skills required of today's players are incredibly different than those of yesterday. Basketball now allows for individual athletes to exhibit physical aptitude within the context of an offense or defense. The attributes of speed, change of direction and power rule the game. The player should be concerned with developing agility, power and speed as well as the endurance to enable the player to sustain maximum performance for the duration of the game. Human beings by nature are competitive and ambitious for the excellence in all sports performance, not only every men but also every nation wants to show their supremacy by challenging the other men over nation. This challenge stimulates inspires and motivates the entire nation to sweat and strives to run faster, jump higher, throw further and exhibit greater speed strength, endurance skill in the present competitive scientific, systematic and planned sports training. SAQ training can cover the complete area of training intensity, from low to high intensity. All individual will come into a training programme at a different level; thus training intensity must coincide with the individual's abilities (Rahul et.al.,2014). According to (Jovanovic et.,al., 2011) SAQ training remove mental blocks and thresholds and allow the athlete to exert maximal force during controlled and balanced movement patterns, which are specific to their sport. This game demands quick and alert well-coordinated players with great stamina to master its complex skills and playing situation. The skill must be developed up to maximum level to get optimum performance with minimum energy expenditure (Jaster, 1977). Yap &Brown, (2000) defined speed as "the rapidity of movement". Agility is the rapid whole body movement with change of velocity or direction in response to a stimulus (Sheppard & Young, 2006). Lee et.al. (1980) defined quickness as "the ability to read and react to a situation; it is a multidirectional skill that combines explosiveness, reactiveness, and acceleration" (Yap &Brown, 2000). SAQ aims to coach the necessary techniques to provide the basic skill to complete the movements.

METHODOLOGY

For the purpose of the study, one hundred and ninety two (N = 192) basketball players were selected as subjects from the qualified teams of the pre quarter finals in the inter CBSE school tournament Bangalore, Karnataka in the academic year 2014-2015. Finally forty youth basketball players were randomly selected as subjects for the present study. They were divided into two equal groups. Each group consists of 20 subjects. Group - I was underwent to SAQ training (SAQT), Group – II acted as control group. They didn't undergo for any specific training programme. Their age was fixed in the range of 15 – 17 years. The researcher had been selected the following variables for the present study: skill performance variables namely dribbling and passing ability. The data was collected before and after twelve weeks of training. The collected data was analyzed by using 't' test and applying Analysis of Co-Variance (ANCOVA) Technique. The level of significance was fixed at 0.05.

EXPERIMENTAL DESIGN

For the present study pre test – post test randomized group design was used.

TRAINING PROCEDURE

The data will be taken for both the groups before and after the experimental period of twelve weeks. After the initial measurements the specially designed training programme was given to the subjects of the experimental group named as SAQ (speed, agility and quickness) training. The training for experimental groups was administrated at Indus International School, Bangalore, Karnataka. The training sessions were conducted three days a week i.e. (Monday, Wednesday, and Friday) over a period of twelve weeks. Each experimental session was of 30-45 minutes duration with excluding warm-up and warm-down. The training commenced with one week of general physical conditioning for the experimental groups, so that the subjects were ready physically and mentally to take on specific load administrated to them for the purpose of the study. After one week of conditioning the training was administrated to the experimental groups, which include speed, agility, and quickness drills respectively for three days in a week i.e. (Monday, Wednesday, and Friday). A week schedule was repeated to the proceeding week and the load was adjusted progressively. A detail program is appended.

The procedure adopted for the adjustment of load is as follows: The load intensity was kept low to moderate in first week and increased progressively in proceeding week moderate to high. The frequency of training was thrice in a week. The density was adjusted according to intensity because it is inversely related to intensity. The repetition and sets were increased progressively from first week to proceeding week. The duration of training was 30-45 min. for each experimental day. The duration of warm-up and warm-down were fixed at ten to fifteen minutes respectively. Control group was not allowed to take part in the specific experimental training programme expect they had daily general warming up and had their normal activities.

The following drills were used for this study:

Speed: Standing stationary arm swings, straight leg shuffle, weighted arm swings, "A" skips, contrast resisted arm swings, skipping for height. ***Agility:*** Forward roll, carioca, backward roll, side to side with cone reach, sprawl and stand up, side to side with volley. ***Quickness:***

Hip-twist ankle jumps, MB wall chest passes, in- place tuck jumps, tap drills, pike jumps, one- handed tap drills with partner.

RESULTS AND DISCUSSION

Table – 1Significance of mean gains /losses between pre and post test of SAQT and CG on selected skill performance variables

Variables	Pre test Mean ± SD	Post test Mean ± SD	Mean Diff	SE	N	't'
SAQ Training						
Dribbling Ability	10.77 ±0.41	9.35 ±0.92	1.42	0.18	20	7.37*
Passing Ability	18.60 ±1.31	21.95 ±1.19	3.35	0.31	20	10.80*
Control Group						
Dribbling Ability	10.82 ±0.29	10.84 ±0.46	0.02	0.04	20	0.43
Passing Ability	18.80 ±1.43	19.10 ±1.51	0.30	0.21	20	1.45

***Significant at 0.05 level (2.09).**

Table –1indicates that the obtained't' ratio on SAQ training group for selected skill performance variables were dribbling ability (7.37) and passing ability (10.80). The obtained't' ratio on skill performance variables were greater than the critical value of 2.09 df (1, 19). It was observed that the mean gains and losses made from pre-test and post-test were statistically significant. For resulting twelve weeks practice of SAQ training (SAQT) produced significant improvement in dribbling ability (1.38 $p<0.05$) and passing ability (3.35 $p<0.05$) from the performance of baseline. The obtained't' ratio on control group for skill performance variables were dribbling ability (0.43) and passing ability (1.45). The obtained't' ratio on skill performance variables were lesser than the critical value of 2.09 for df (1, 19). It was observed that the mean gains and losses made from pre-test and post-test were statistically insignificant. For resulting twelve weeks practice of SAQ training (SAQT) produced insignificant improvement in serving ability (0.02 $p>0.05$) and passing ability (0.30 $p>0.05$) from the performance of baseline. The pre-test and post-test mean differences of SAQ training (SAQT) and Control Group (CG) on serving ability and passing ability are graphically represented in Fig 1 to Fig 2.

Figure – 1Bar diagram showing the mean values of pre-test and post-test on Dribbling ability

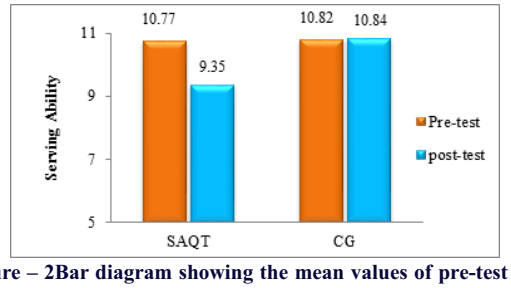


Figure – 2Bar diagram showing the mean values of pre-test and post-test on passing ability

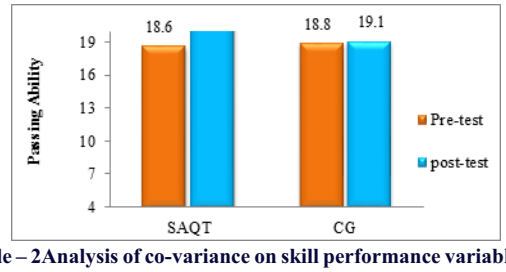


Table – 2Analysis of co-variance on skill performance variables of SAQ training and control group

Variables	F-value		
	Pre-test	Post-test	Adjusted Mean
Dribbling Ability	0.19	40.05*	51.02*
Passing Ability	0.21	43.63*	76.40*

*significant level 0.05 level with df (1, 37 = 4.10).

Table – 2 reveals that the obtained 'F' value of pre-test on dribbling ability is 0.19 and passing ability is 0.21. Since the observed F values on pre test among the groups namely SAQ training and control group were insignificant as the value was lesser than the critical value 4.10 for df (1, 38) at 0.05 levels. The obtained 'F' value of post-test on dribbling ability is 28.28 and passing ability is 12.87. Since the observed F values on post test among the groups namely SAQ training and control group were highly significant as the value was higher than the critical value 4.10 for df (1, 38) at 0.05 levels. The obtained 'F' value of adjusted post-test on dribbling ability is 70.09 and passing ability is 22.08. Since the observed F values on adjusted post test among the groups namely SAQ training and control group were highly significant as the value was higher than the critical value 4.10 for df (1, 37) at 0.05 levels.

The adjusted post-test means of SAQ training (SAQT) and Control Group (CG) on speed, agility, quickness, dribbling ability and passing ability are graphically represented in Fig 3 to Fig 4.

Figure – 3Bar diagram showing the adjusted mean values of SAQ training and control group on dribbling ability

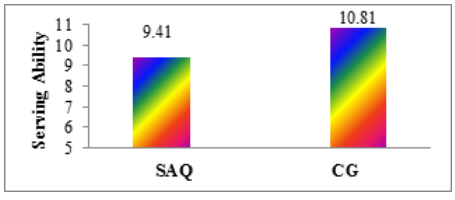
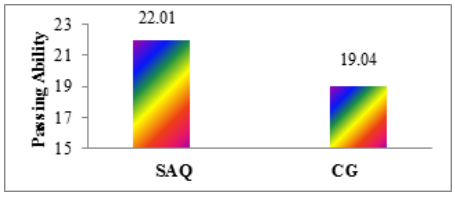


Figure – 4Bar diagram showing the adjusted mean values of SAQ training and control group on passing ability



DISCUSSION OF FINDINGS

After collection of data, appropriate statistical analysis has been done. The results, in general, support the theory that S.A.Q. drills improve skill performance variables of youth basketball players. We found that experimental group improved significantly which is finding between pre to post test. From the findings it was evident that the treatment given to experimental group found to enhance the basketball skills performance of youth players in comparison to control group for pre to post (12weeks) test because the tabulated value was found approximately more than required value to be significant. It was observed that the SAQ training significantly improved in above said variables dribbling ability 13.18%, and passing ability18.01 %,).

The results of this study support the use of junior players have been exposed first time to S.A.Q. training programme which is highly scientific and systematic in nature because of which optimum adaptation and enhancement in skills performance has been seen. It is proved even by the available literature by Diswar et.al, (2016). they have conducted a study on comparative effect of SAQ and circuit training programme on selected physical fitness variables of school level basketball players and the finding of their study showed that SAQ training program was better than circuit training program for developing speed and agility. Some more study also supported my findings Sharma, & Dhapola, (2015). studied to determine the effect of speed, agility, quickness (SAQ) training programme on selected physical fitness variables and playing abilities in basketball University players and the SAQ training programme were imparted a total period of six weeks. The result of the study showed significant effect on speed, agility and quickness and the playing abilities of basketball players. Sudha et.al, (2012).

CONCLUSIONS

Based on the findings and within the limitation of the study it is noticed that practice of selected S.A.Q. drills helped to improve skill performance variables of youth basketball players. It was seen that there is progressive improvement in the selected criterion variables of SAQ training groups of basketball players after twelve weeks of training programme. Further practice of drills also helps to improve other fitness factors i.e. explosive strength, speed, agility and quickness that play major role in skills performance. There was no significant improvement found in skilled performance and other

performance variables of control groups, while comparing pre and posttest mean score following conclusion were drawn. The rate of improvement skill performance (dribbling and passing ability) was higher for the experimental groups in comparison to control groups due to S.A.Q training.

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