



Research Article

EFFECT OF E-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING ON SELECTED BIOMOTOR ABILITIES OF INTERCOLLEGIATE CRICKET PACE BOWLERS

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Abstract

The purpose of the study was to determine the effect of e-content assistive with traditional training on selected bio-motor abilities of intercollegiate cricket pace bowlers. To achieve the purpose twelve intercollegiate cricket pace bowlers were randomly selected from the Maruthi College of Physical Education and Ramakrishna Mission Vivekananda University, Periyanaickenpalayam, Coimbatore. The age of the subject ranged from 18 to 25 years. The selected subjects were considered as only one group. The following criterion variables were selected for the study namely, speed, grip strength and flexibility. The training period was for twelve weeks except on Saturdays and Sundays in every week. Data were collected from each subject before and after the twelve weeks of e-content assistive with traditional training. The collected data were statistically analyzed by using 't' ratio. It was found that there is significant improvement in speed, grip strength and flexibility due to the treatment of e-content assistive with traditional training.

Key Words: e-content assistive training, Traditional training, Bio-motor abilities.

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INTRODUCTION

In the present scenario participation in sports becomes a vital nutrient for human survival. In sports, enormous modern technologies and training methods are used by the physical education teacher, players and coaches to improve their performance.

E-learning (or eLearning) is the use of electronic educational technology in learning and teaching. The term "e-learning" is used frequently, but is variously and imprecisely defined and applied. **Coined between 1997 and 1999**, e-learning became first attached to either a distance learning service or it was used for the first time at the CBT systems seminar. Since then the term has been used extensively to describe the use of online, personalized, interactive or virtual education.

Traditional (conventional) exercise programmes are commonly thought to involve exercises that isolate specific muscles in order to increase strength more effectively (**McGill et al. 2009**). Applying this philosophy, the focus of a traditional (Conventional) exercise program is to increase the strength or endurance of a particular muscle or muscle group with regard to training movements that are related to activities of daily living or sport performance.

The word 'training' has been a part of human language since ancient times. It denotes the process of preparation for some task. This process invariably extends to a number of days, even months and years. The term training is widely used in sports (**Hardayal Singh, 1997**).

"Sports training is a scientifically based and pedagogically organized 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**].

Fast bowling, is sometimes known as pace bowling, in the sport of cricket. Practitioners are usually known as fast bowlers, fast men, pace bowlers, quick's, or pace men, although sometimes the label refers to the specific fast bowling technique the bowler prefers, such as swing bowler or seam bowler. The aim of fast bowling is to bowl the hard cricket ball at high speed and to induce it to bounce off the pitch in an erratic fashion or move sideways through the air, factors which make it difficult for the batsman to hit the ball cleanly. a typical fast delivery has a speed in the range of 137–153 km/h (85–95 mph).

METHODOLOGY

The purpose of the study was to find out the effects of e-content assistive with traditional training on selected bio-motor abilities of intercollegiate cricket pace bowlers. To achieve the purpose of the study, twelve intercollegiate cricket pace bowlers were selected as subjects from the Maruthi College of Physical Education and Ramakrishna Mission Vivekananda University, Periyanaickenpalayam, Coimbatore, Tamil Nadu by applying random sampling method. The age of the subjects ranged from eighteen to twenty five years. The selected subjects were considered as one group. The following criterion variables were selected for the study namely, speed, grip strength and flexibility. The training

period was for twelve weeks except on Saturdays and Sundays of every week.

CRITERION MEASURES

The selected tests were measured by the following units of testing the hypothesis.

Bio-motor abilities

- ❖ 60 yard dash was used to find out speed.
- ❖ Dynamo grip strength test was used to find out grip strength.
- ❖ Sit and reach test was used to find out flexibility.

TRAINING PROGRAMME

e-content assistive with traditional training was given to the subjects. The training period was for twelve weeks except on Saturdays and Sundays of every

week. The following exercises were given to the subjects namely, Theme based learning, Video learning, Experts view, Hip rotation, Angle rotation, Slight jump, Alternate toe touch, Skipping, Calf stretch, Modified hurdler stretch, Butterfly stretch, Straddle stretch, Side quad stretch, High Knees, High Skipping, Skipping Kicks, Upper back side stretch, Wrist flexion stretch, Rotating wrist stretch, Elbow out rotator stretch, Standing Toe-up Achilles stretch, Five- Cone running, Cock accuracy throws, Cock distance throw, Diagonal stepping, Diagonal leaps, Shadow Play, Court coverage, Long rallies, Ball collection, "M" formation runs, Medicine Ball Tosses, Overhead Toss, Forward Toss, Side Toss, Triceps Toss. Pre and post-test were conducted prior to and after the intervention.

STATISTICAL TECHNIQUE

Correlated dependent 't' ratio was calculated to find out the significant difference between the mean of pre and post-tests of the group.

RESULTS AND DISCUSSION

e-Content Assistive with Traditional Training Group on Speed

The data obtained on speed as a result of e-content assistive with traditional training were analyzed using the 't' ratio and are presented in table -I.

TABLE - I
TABLE SHOWING MEAN DIFFERENCE STANDARD DEVIATION AND 't'
VALUE OF e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING
GROUP ON SPEED

Group	Mean	MD	SD	Std. Error of the mean	DF	Correlation	't'	Table value
Pre test	6.35	0.92	0.29	0.08	11	0.56	10.91*	2.20
Post-test	5.43							

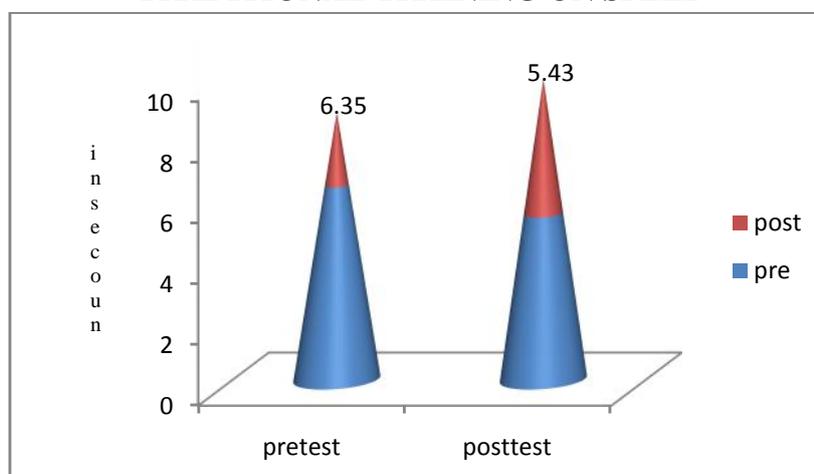
* Significant at 0.05 level of confidence

To find out the significant difference between the pre- test and post- test on the speed of the e-content assistive with traditional training groups ‘t’ ratio is employed and the level of significance was set at 0.05. The e-content assistive with traditional training group pre- test value is 6.35 and post- test value is 5.43. The mean difference value is 0.92 and the

obtained ‘t’ ratio is 10.91 and is higher than the table value of 2.20. It shows that the e-content assistive with traditional training group had significant improvement on the speed.

Pre- test and post- test results of e-content assistive with traditional training group on speed are presented in figure 1.

FIGURE - 1
FIGURE SHOWING MEAN VALUES OF e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING ON SPEED



e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING ON GRIP STRENGTH

The data obtained on grip strength as a result of the e-content assistive with traditional training were analyzed using the ‘t’ ratio and are presented in table – II.

TABLE - II
TABLE SHOWING MEAN DIFFERENCE STANDARD DEVIATION AND ‘t’ VALUE OF e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING GROUP ON GRIP STRENGTH

Group	Mean	MD	SD	Std. Error of the mean	DF	Correlation	‘t’	Table value
Pre test	51.42	4.08	2.78	0.80	11	0.97	5.09*	2.20
Post-test	55.50							

* Significant at 0.05 level of confidence

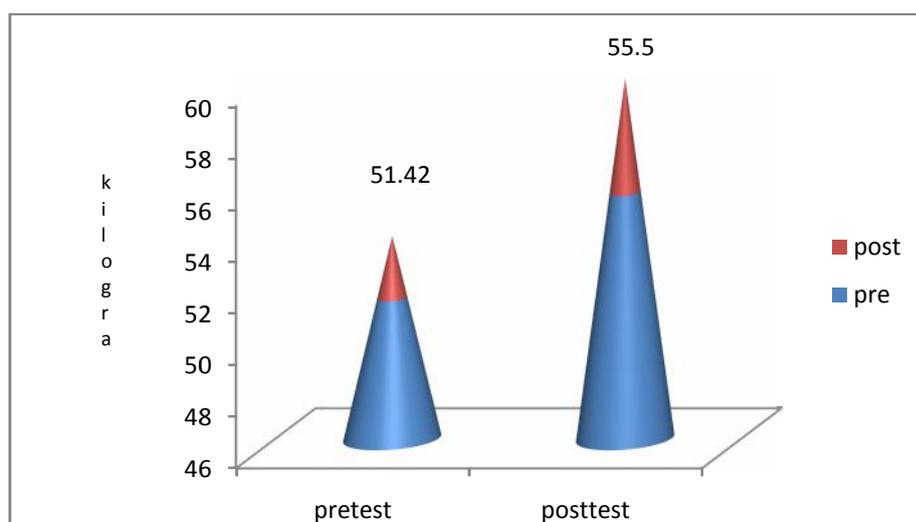
To find out the significant difference between pre-test and post- test on grip strength of e-content assistive with traditional training groups, ‘t’ ratio is

employed and the level of significance was set at 0.05. The e-content assistive with traditional training group pre- test value is 51.42 and post- test value is 55.50.

The mean difference value is 4.08 and the obtained 't' ratio is 5.09 and is greater than the table value of 2.20. It shows that the e-content assistive with traditional training group showed a significant improvement on grip strength.

Pre- test and post- test results of e-content assistive with traditional training group on grip strength are presented in figure 2.

FIGURE - 2
FIGURE SHOWING MEAN VALUES OF e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING GROUP ON GRIP STRENGTH



e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING ON FLEXIBILITY

The data obtained on flexibility as a result of the e-content assistive with traditional training group were analyzed using the 't' ratio and are presented in table –IV.

TABLE - IV
TABLE SHOWING MEAN DIFFERENCE STANDARD DEVIATION AND 't' VALUE OF e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING GROUP ON FLEXIBILITY

Group	Mean	MD	SD	Std. Error of the mean	DF	Correlation	't'	Table value
Pre test	27.10	2.04	1.53	0.44	11	0.95	4.62*	2.20
Post-test	29.14							

* Significant at 0.05 level of confidence

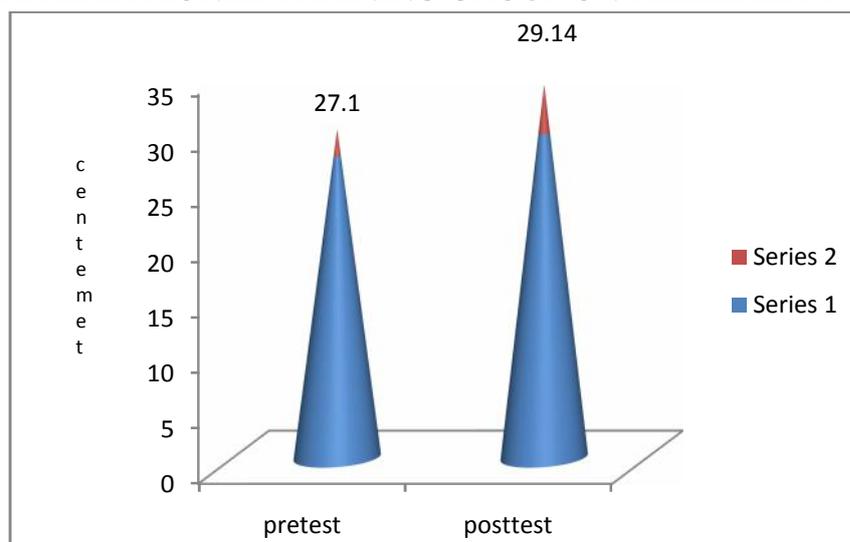
To find out the significant difference between pre- test and post- test on flexibility of e-content assistive with traditional training groups, 't' ratio is

employed and the level of significance was set at 0.05. The e-content assistive with traditional training group pre- test value is 27.10 and post- test value is 29.14.

The mean difference value is 2.04 and the obtained 't' ratio is 4.62 and is greater than the table value of 2.20. It shows that the e-content assistive with traditional training group showed significant improvement on flexibility.

Pre-test and post- test results of e-content assistive with traditional training group on flexibility are presented in figure 3.

FIGURE - 3
FIGURE SHOWING MEAN VALUES OF e-CONTENT ASSISTIVE WITH TRADITIONAL TRAINING GROUP ON FLEXIBILITY



DISCUSSION ON FINDINGS

The prime intention of the researcher was to analyze the e-content assistive with traditional training on the selected bio-motor variables of inter-collegiate cricket pace bowlers.

The results of the study indicated that the e-content assistive with traditional training had significantly influenced bio-motor variables namely speed, grip strength and flexibility. Thus, it stands proved that the selected training means had influenced the criterion variables.

The results of the present study indicated that the e-content assistive with traditional training impacted significantly the progress of the subjects as far as the

speed, grip strength and flexibility of the cricket pace bowlers was concerned.

Therefore, cricket pace bowlers ought to possess the speed, grip strength and flexibility for bowling faster for taking wickets, achieving maximum speed and for making efficient movements in the field. The systematic and scientific imparting of these training regimens was advantageous in improving the speed, grip strength and flexibility of the players.

The results of the study have also been supported by the following authors. Venkatasubramoniam (2014); Manikandan & Ananthumar (2014); Santhoshkumar & Pushparajan (2013); Ibrahim & Osmanu

(2012) and Bavcevic ., et al (2008) whose studies brought about similar results as far

as improvement on speed, grip strength and flexibility went.

CONCLUSIONS

- It was concluded that the selected bio-motor abilities namely, speed, grip strength and

flexibility significantly improve due to the e-content assistive with traditional training.

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