ISSN No : 2230-7850

International Multidisciplinary Research Journal

Indian Streams Research Journal

Executive Editor
Ashok Yakkaldevi

Editor-in-Chief H.N.Jagtap

Welcome to ISRJ

RNI MAHMUL/2011/38595

ISSN No.2230-7850

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

Regional Editor

Dr. T. Manichander

Mr. Dikonda Govardhan Krushanahari Professor and Researcher,

Rayat shikshan sanstha's, Rajarshi Chhatrapati Shahu College, Kolhapur.

International Advisory Board

Kamani Perera

Regional Center For Strategic Studies, Sri

Lanka

Janaki Sinnasamy

Librarian, University of Malaya

Romona Mihaila

Spiru Haret University, Romania

Delia Serbescu

Spiru Haret University, Bucharest,

Romania

Anurag Misra

DBS College, Kanpur

Titus PopPhD, Partium Christian University, Oradea, Romania

Mohammad Hailat

Dept. of Mathematical Sciences,

University of South Carolina Aiken

Abdullah Sabbagh

Engineering Studies, Sydney

Ecaterina Patrascu

Spiru Haret University, Bucharest

Loredana Bosca

Spiru Haret University, Romania

Fabricio Moraes de Almeida

Federal University of Rondonia, Brazil

George - Calin SERITAN

Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, Iasi

Hasan Baktir

English Language and Literature

Department, Kayseri

Ghayoor Abbas Chotana

Dept of Chemistry, Lahore University of

Management Sciences[PK]

Anna Maria Constantinovici AL. I. Cuza University, Romania

Ilie Pintea,

Spiru Haret University, Romania

Xiaohua Yang PhD, USA

.....More

Editorial Board

Iresh Swami Pratap Vyamktrao Naikwade

ASP College Devrukh, Ratnagiri, MS India Ex - VC. Solapur University, Solapur

R. R. Patil N.S. Dhaygude

Head Geology Department Solapur

University, Solapur

Narendra Kadu

Rama Bhosale

Panvel.

Prin. and Jt. Director Higher Education,

Salve R. N.

Department of Sociology, Shivaji

University, Kolhapur

Govind P. Shinde

Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai

Chakane Sanjay Dnyaneshwar Arts, Science & Commerce College,

Indapur, Pune

Awadhesh Kumar Shirotriya

Secretary, Play India Play, Meerut (U.P.)

Ex. Prin. Dayanand College, Solapur

Jt. Director Higher Education, Pune

K. M. Bhandarkar

Praful Patel College of Education, Gondia

Sonal Singh

Vikram University, Ujjain

G. P. Patankar

S. D. M. Degree College, Honavar, Karnataka Shaskiya Snatkottar Mahavidyalaya, Dhar

Maj. S. Bakhtiar Choudhary

S.Parvathi Devi

Ph.D.-University of Allahabad

Director, Hyderabad AP India.

Sonal Singh,

Vikram University, Ujjain

Rajendra Shendge

Director, B.C.U.D. Solapur University,

Solapur

R. R. Yalikar

Director Managment Institute, Solapur

Umesh Rajderkar

Head Humanities & Social Science

YCMOU, Nashik

S. R. Pandya

Head Education Dept. Mumbai University,

Alka Darshan Shrivastava

Rahul Shriram Sudke

Devi Ahilya Vishwavidyalaya, Indore

S.KANNAN

Annamalai University,TN

Satish Kumar Kalhotra

Maulana Azad National Urdu University

Address:-Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India Cell: 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.oldisrj.lbp.world



Iskr Indian Streams Research Journal



ISSN: 2230-7850 Impact Factor: 4.1625(UIF) **Volume - 6 | Issue - 11 | December - 2016**

EFFECT OF PLYOMETRICS TRAINING ON LONG JUMP PLAYERS

Shri. Vishal Lahu Pawar

ABSTRACT

he purpose of the present Study was to compare the effects of plyometrics training on long jump players . Subjects were 40 interschool athletes assigned to one plyometric group completed a 12-week training program. There were statistical increases in pre-test long jump Mean (4.143) and Post-test long jump Mean (4.2705) There were significant differences for pre-test post-test long jump The findings of this study demonstrate that there is difference in long jump among plyometric training experimental 12-week timeframe. pre-test S.D is 0.037955 and post-test S.D 0.029267

KEYWORDS:*Plyometric* training, long jump, training program.

INTRODUCTION:

Plyometric, otherwise called "bounce preparing" or "plyos",



are practices in which muscles apply greatest power in short interims of time, with the objective of expanding power (speed-quality). This preparation centers around figuring out how to move from a muscle expansion to a constriction in a fast or "dangerous" way, for example, in particular rehashed jumping.Plyometric are basically utilized by competitors, particularly military specialists, sprinters and high jumpers, to enhance performance, and are utilized in the wellness field to a substantially lesser degree.

Plyometric incorporates hazardous groundbreaking preparing practices that are prepared to enact the snappy reaction and versatile properties of the significant muscles in the body. It was at first made celebrated by Soviet Olympians in the 1970s, giving the center component in the quality projects of tip top brandishing competitors around the world. Games utilizing plyometric incorporate b-ball, tennis, badminton, squash and volleyball and in addition the different codes of football.

The expression "plyometric" was begat by Fred Wilt subsequent to watching Soviet competitors get ready for their occasions in olympic style events; he felt this was a key to their

prosperity. He started a coordinated effort with Soviet (Russian) coach Michael Yessis to advance plyometric.

Since its presentation in the mid 1980s, two types of plyometric have developed. In the first form of plyometric, made by Russian researcher Yuri Verkhoshansky, it was characterized as the stun technique. In this, the competitor would drop down from a stature and experience a "stun" after landing. This thus would realize a constrained unusual compression which was then instantly changed to a concentric constriction as the competitor hopped upward. The arrival and departure are executed in an amazingly brief timeframe, in the scope of 0.1- 0.2 second. The stun strategy is the best technique utilized by competitors to enhance their speed, speed, and after power advancement of a solid quality base.

As opposed to utilizing the term plyometric to demonstrate practices using the stun technique, it might be desirable over utilize the term hazardous or genuine plyometric which can be viewed as the same as the plyometric initially made by Verkhoshansky. The stun strategy that he made was the aftereffect of concentrate the activities that happen in running and hopping. He found that the arrivals and departures in these two abilities included high ground response powers that were executed in a to a great degree brisk and unstable way. For instance, time of execution of the arrival and departure in hopping was near 0.20 second and in dashing it was around 0.10 second.

Since one of the primary destinations of the Soviet research was to create functional techniques for preparing to enhance athletic execution, Verkhoshansky handled the errand of how these powers in dangerous execution could be copied in an activity. By doing activities, for example, the profundity hop, that he made, the competitor would improve his capacity in the departure and his resultant execution in the running or hopping occasion. He explored different avenues regarding various activities, however the profundity hop had all the earmarks of being the best to duplicate the powers in the arrival and departure.

METHODS

Experimental Approach to the Problem

One group of 40 male athletes is experimental group (X) and they were participated in a 12-week Plyometrics training program with upper & lower extremity resistance.

Design

This was a pre-test post-test randomized group experimental pre–post design with all subjects being randomly assigned.

R O1 X O2

O1 Pre-test, O2 is a Post-test, X is experimental group, R is Randomization

Methodology

Each subject underwent measurements of bodyweight and long jump. Pretesting was conducted the week prior to the initiation of the training period. Posttesting was conducted the week following training completion. Subjects were instructed to refrain from exercise for 48 hours.

Long Jump Distance

Long jump length was measured by the jump in sand pit used meter tape and Subjects were allowed a minimum of 3 test jumps with a 30-second recovery between each jump. If subjects improved their jump length between the second and third jump, they were allowed an additional jump. The highest jump recorded was used for data analysis.

Training Protocols

Subjects then were randomly assigned one training group experimental (X) long jump prior to the commencement of the training program. It was the intent of this study to compare the effects of different types of plyometric modalities, not to compare if these modalities improve lower body power versus no training. Also, the researchers, as well as the subjects' respective coaches, did not want the athletes to miss12 weeks of training if placed into. Additional plyometric training was not allowed during the study. Aerobic training and participation in the subjects' respective sports was allowed. The subjects were instructed to continue their usual dietary habits throughout the study. All training was performed 3 days per week with 1 day of rest in between each training day.

Statistical Analyses

was used to determine statistical differences between pre-test and post-test. Significant within-subjects factors were followed up using protected dependent. Effect sizes were calculated by determining the difference between pre-and post-test means, divided by the pretest SDs. Statistical significance all statistical analyses.

	Pre-test	post test
Mean	4.143	4.2705
S.D.	0.037955	0.029267

Training Compliance

There were 36 training sessions over the 12-week training program. There was significant difference among the pre-test and post-test for training compliance. Attendance was pre-test (X) mean value was (4.143) and post-test (X) mean value (4.2705), The good training session was compliance.

DISCUSSION AND CONCLUSIONS

The current investigation compared the effects of a Plyometrics training program The findings of this investigation were that there were significant mean differences for pretest and posttest long jump . Training compliance across group was 80% throughout the 12-week training program. There were statistical differences, however, with training compliance across the group. We had hypothesized that the Plyometrics training would show the greatest amount of change in Long jump .

REFERENCES

- 1. Adams, K, O'Shea, JP, O'Shea, KL and Climstein, M. 1992. The effect of six weeks of squat, plyometric and squat-plyometric training on power production. Journal of Applied Sport Science Research, 6: 36–41.
- 2.Baechle, TR and Earle, RW. 2000. Essentials of strength training and conditioning, 2nd, Champaign, IL: Human Kinetics.
- 3.Baker, D. 1995. Selecting the appropriate exercises and loads for speed-strength development. Strength and Conditioning Coach, 3: 8–15.
- 4.Baker, D. 1996. Improving vertical jump performance through general, special, and specific strength training: A brief review. Journal of Strength and Conditioning Research, 10: 131–136.
- 5.Gehri, DJ, Ricard, MD, Kleiner, DM and Kirkendall, DT. 1998. A comparison of plyometric training techniques for improving vertical jump ability and energy production. Journal of Strength and Conditioning Research, 12: 85–89.
- 6.Haff, GG and Potteiger, JA. 2001. A brief review: Explosive exercises and sports performance. Strength and Conditioning Journal, 23: 13–20.
- 7. Hammett, JB and Hey, WT. 2003. Neuromuscular adaptation to short-term (4 weeks) ballistic training in trained high school athletes. Journal of Strength and Conditioning Research, 17: 556–560.
- 8. Kansal, D.K. (1996) Test and Measurement in Sport and physical education New Delhi: D.V. S. Publication.
- 9. Gambetta, V. (1989) Principles of Plyometrics training. Track technique, 97 3099-3104.

Publish Research Article International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication, you will be pleased to know that our journals are

Associated and Indexed, India

- ★ International Scientific Journal Consortium
- * OPEN J-GATE

Associated and Indexed, USA

- Google Scholar
- EBSCO
- DOAJ
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Databse
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database
- Directory Of Research Journal Indexing

Indian Streams Research Journal 258/34 Raviwar Peth Solapur-413005,Maharashtra Contact-9595359435 E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com Website: www.oldisri.lbp.world