



## SOAR JUMP TRAINING METHOD TOWARDS UNIMA FIKKMKM STUDENTS

Fentje Welliam Langitan, Fredrik Alfrets Makadada

Universitas Negeri Manado

[fentjelangitan@unima.c.id](mailto:fentjelangitan@unima.c.id); [fredrikmakadada@unima.ac.id](mailto:fredrikmakadada@unima.ac.id)

Article history:	Abstract:
<b>Received:</b> 7 <sup>th</sup> August 2023 <b>Accepted:</b> 7 <sup>th</sup> September 2023 <b>Published:</b> 10 <sup>th</sup> October 2023	Explosive power including one element fitness physical body required by some big branch sport games, especially those that require strength and speed. Jump soar is part from training useful plyometrics for increase Power explode. For know extent of training the can increase Power explode muscle limbs , then held study with randomized pre-test design post test control group design involving 20 students son of FIKKMKM UNIMA aged 18-21 years . Group treatment given training jump soar. Training held for 6 weeks. Measurement results show that the average power explode muscle limbs before training of 4.107 cm and after training 3,516 cm. Test results paired test with acquisition beginning the test ( $p > 0.05$ ). Difference before training and after training level significance ( $p < 0.05$ ). Study this conclude that training Jump Soar more Good in increase Power explode muscle limbs UNIMA FIKKM student

**Keywords:** Plaiometrics , Soaring Jump , Explosive Power

### INTRODUCTION

Freshness physical is one influencing factors performance sports. Freshness physical is development every part body that is ability muscle For move or contract, system circulation , system respiratory , system nerves and others, so you can Work optimally for fulfil need body do activity Because demands environment. Own fitness more physical tall so somebody can increase his appearance. For sportsman , fitness physical determine success reach optimal performance . However its height appearance skills possessed when fitness physical low so Skills No has the same meaning once, he will weak and defeated (Nala, 1986).

Each element fitness physical No Can equalized function , work and burden . Various branch sport have percentage fitness dominant body. Based on difference the so need searching for element fitness physical dominant or at most is displayed in branch the sport being pursued. The more tall level fitness physical possession will the more support achieved techniques specFIKKM, so the more fast Skills can mastered ( Sajoto , 1988).

Explosive power muscle limbs including one component or element important to many branch sports that require strength and speed (Nala, 1988). Explosive power muscle is ability contraction muscle in shortest possible time (Sajoto, 1998). Explosive power is component or element very important movement For do very strenuous activity and can determine how much hard a can hit , how much Far can throwing, how much tall can jumping , how much fast can running and swimming (Jensen et al , 1983). Therefore, athletes or sportsmen who have Power explode muscle high legs will capable jump more high. Measurement Power explode This can done in a way athletic power measurement. Based on results jump soar to above , professional trainers who want to look for candidate athletes , as well as athlete can analyze as well as create a good exercise program in accordance with sport what is trained , without ignore aspect support others , for example knowledge about : physiology , biomechanics , anatomy , nutrition and others.

Training fitness physical special element Power explode muscle not even legs yet get heavy attention from coach on the field. Field observations most from coach in practice fitness physical (element Power explosive) muscle limbs direct go into technique the sport being pursued . Athlete direct do branch sport certain without prepare moreover formerly element fitness physical the in a way adequate, so the result No maximum and occur injury sport of course it 's just very detrimental athlete That itself , and causes all efforts that have been made done become in vain . Beside matter mentioned above, trainer not enough notice measure which is a parameter for determine quantity and quality.

Based on the description above, then formulation problem education is how much big influence training jump soar to on That with the same measure increase Power explode muscle limbs FIKKM UNIMA students 2022.

Radcliffe and Farentinos (1985), differentiate three group exercise plaiometrics , namely : a) practice For member motion bottom , b) practice For stem body, c) exercise For member motion above . Exercise for motion lower consists from exercises bounds, hops, jumps, leaps, skips, ricochets. So in principle exercise plyometric is something exercises that have characteristic special, ie contraction very strong muscles is response from improvement dynamic or fast stretch from the muscles involved . Other names reflex stretch .

According to Jarver quoted by Pyke (1980), practice For hips and legs consists from exercises bounding and depth jumping . Whereas according to Chu (1992), consists from jumping-in a place, bounding box drills and depth jumps. So that objective exercise plyometric is possible exercises muscle For reach strength maximum in shortest time maybe . Stretch shortening cycle is another name for plyometrics. The definition put forward that in principle is same .

Plyometric is one method intended training For increase Power explode or explosive power. Nala (1988) as citing Radcliff and Farentinos (1985); Ditiman (1988); Bompa (1990) says that pressure training plyometric there is muscle legs and hips , with method :

- a. Leap with second feet on the floor , bounce maximum to above to achieve it stepping (stepping with both feet) horizontally as far as possible ( bounds ) .
- b. Jump (two feet) vertically maximum with moreover formerly bend knees , where it matters is breadth movement joints knee .
- c. Jump (two feet ) whenever possible Possible without ignore how much far away horizontal jump to front .
- d. Jump vertical and horizontal maximum maybe , with two jumps or One limbs .
- e. Jump or step alternately , with objective Good tall jump ( one footprints ) or far away distance horizontal jump .
- f. Hopping (two feet ) with quick , where high and far jump minimum maybe .

Training jump soar to on including training plyometrics that emphasize muscles limbs (Nala, 1998). Jump soar is something specialization applied training consequence happen quality adaptation , that which changes form and function from system body especially close ones connection with sport involved (Nala, 1998 ) . So does one form training plyometric jump vertical with repulsion in a way proportional with height ability jump . The unit is centimeter (cm) which is difference achievement jump upright reduced achievement upright . Tools used is board cm scale with accuracy of 0.1cm. This way is an athletic power measurement ( Nurhasan , 1986).

### RESULTS AND DISCUSSION

Research results show that exists change or enhancement Very good average value very For student students who are made as group experiment or executor that is mean score  $47.080 \pm 4.107$  on the test beginning increase to  $54.7150 \pm 3.516$  on the test end .

Statistical test results show happen very significant increase ie exists change average test score end of the group very good experiment .

Study This conclude that happen enhancement Power explode muscle limbs because of training jump soar to on UNIMA FIKKM students influence will more good .

### CONCLUSION

Based on results / findings research , can withdrawn conclusion as following : yes good influence \_ with training jump soar to on with the same pull to enhancement Power explode muscle limbs FIKKM UNIMA students in 2022.

With thereby training jump soar to on can used as guidelines training For build fitness physical, esp enhancement Power explode muscle limbs UNIMA FIKKM student .

### REFERENCE

1. Bompa , TO 1990. Theory and Methodology of Training : The Key to Athletic Performance . 2nd<sup>ed</sup> . Dubuque: Kendall Hunt Publishing.
2. Brooks, GA, Fahey, TD 1984. Exercise of Psychology : Human Bioenergetics and Its Application . New York : John Vihtley and Sons Chu. D. A 1992. Jumping into Plyometrics . California: Leisure Press Champaign.
3. Fox, E.L., R.W. Bowers, 1984. Sport Physicology . Philadelphia: Saunders College.
4. Harre, D. 1982. Principles of Sport Training : Introduction to the Theory and Methods of Training . Sport Verlag, Berlin.
5. Jensen, CR 1883. Applied Kinesiology and Biomechanics . New York: McGraw-Hill Book Company.
6. Manuaba , BA 1983. Approach Scientific in Sports . Collection of McArdle, WD, Katch, FL 1986. Exercise Physiology : Energy, Nutrition and Human Performance , 2<sup>nd</sup> edition. Philadelphia: Lea & Febriger .
7. Nala, GN 1998. Principles Data collection Physique Denpasar Sports : Teaching materials for the Physiology Study Program Sports . Udayana University Postgraduate Program .
8. Nurhasan , 1989. Tests and Measurements . Jakarta : Karunika Open University.
9. Radcliffe, JC, Farentinos , RC 1985. Plyometrics: Explosive Power Training . 2nd<sup>Edition</sup> . Champaign, Illinois: Human Kinetics Publishers, Inc.
10. Sajoto , 1988. Improvement and Development Condition Physique in Sports . Jakarta : Department of Education and Culture .
11. Zainuddin, M. 1988. Design Research . Surabaya: Postgraduate Unair .