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## Emotional Stability among Teacher trainee of Educational Colleges

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### Abstract-

It is necessary to make student confident in teaching by knowing emotional stability. So, the teacher training institution should take some effective measures about emotional stability of the teacher trainee.

**Research Problem:** Emotional Stability among Teacher trainee of Educational Colleges.s

### Objectives:

1. To determine the emotional stability among educational college teacher trainees.
2. To compare the male and female teacher trainees of educational college with respect to emotional stability.

**Sample:** The total sample of the study was purposive selected and consisted of 65 teacher trainees studying in educational colleges.

**Methodology** – In this present study, the investigator applied normative survey as a method.

### Introduction

There are different emotions in human being which plays vital role in the success. Emotional stability refers to the process in which the personality is consistently striving for greater sense of emotional health, both intra-physically and intra-personally. B. Ed. is entirely a different course for the students who enter after completing degree or post-graduation. Naturally B. Ed. trainee feel confusion, worry about the teaching and practicum work etc. It is necessary to make student confident in teaching by knowing emotional stability. So, the teacher training institution should take some effective measures about emotional stability of the teacher trainee. Emotional stability is necessary in every work to achieve success.

### Rationale of the Study –

Student teacher is a period of transition which leads to emotional instability, lack in expressing views and opinions and lack of understanding their parent and teacher. The term emotions refer to a feeling and its distinctive thoughts, psychological and biological states and range of propensities to act. Stability in emotions means firmly established or fixed, not easily upset or disturbed well balanced and capable to remain in same status. Emotional stability is not only one of the effective determinants of the personality patterns, but it also helps to control the growth of student teacher's development. Emotions are by far the most powerful force that influences actions. Action in turn affects the people around you. Therefore, the way you feel influences how you react and how you think of a particular situation. Emotional stability is important because it not improves your life but also the lives of your friends. Emotional stability means a person's "ability to remain calm or even keel when faced with pressure or stress."

Teacher Educators agree that many students perform poorly in their academic effort not because they do not possess the emotional ability to do well but because they do not adjust to the college norms.

### Research Methodology

**Research Problem:** The present study will be, "Emotional Stability among Teacher trainee of Educational Colleges" .

**Objectives:** The main objectives of study will be,

1. To determine the emotional stability among educational college teacher trainees.
2. To compare the male and female teacher trainees of educational college with respect to emotional stability.

**Hypothesis:** The investigator of the present study framed the following hypothesis.

There will be no significant mean difference between male and female teacher trainees of educational college with respect to emotional stability.

**Operational Definition – Emotional stability-** It refers to the process in which the personality is consistently striving for greater sense of emotional health, both intra-physically and intra-personally.

**Dr. Kisan Jijaba Shinde**

**Research Design** - The present study aims at investigating Emotional Stability in relation with adjustment among teacher trainee of educational Colleges in the Punyshlok Ahilyadevi Holkar Solapur University of Maharashtra state. In this present study, the investigator applied normative survey as a method.

**Independent Variables**- Independent variable is the variable that stands alive and does not depend on any other. For the present study, two gender categories were taken into consideration: male and female. In this study independent variables are Boys and girls of college teacher trainees.

**Dependent Variables** - The dependent variable is the variable that the researcher is interested in understanding, explaining or predicting. In this study dependent variable is Emotional stability among educational college teacher trainees

### Sample And Population

**Population:** All the students studying in B. Ed. 2017-19 Year II of all the B. Ed. Colleges situated in Punyshlok Ahilyadevi Holkar Solapur University in Maharashtra state constituted the population of the study.

**Sample:** The total sample of the study was purposive selected and consisted of 65 teacher trainees studying in educational colleges situated in Punyshlok Ahilyadevi Holkar Solapur university of Maharashtra. (Male- 25 Female 40)They are selected by convenience method.

**Methodology** – Research methodology involves the systematic procedure by which the researcher starts from the initial identification of the problem to its final conclusion. In this present study, the investigator applied normative survey as a method.

### Data Analysis Techniques

Following statistical techniques will be used to analyze data in the present study:

Mean Score, Standard Deviation, Percentage, T-test

**Tests/Tools For Data Collection-** The present study have used the following research tools.

**Emotional Stability Questionnaire:** In this study emotional stability questionnaire designed and developed by Sanjay Vohra was used for data collection. This scale consists of 60 items and gives sten score on total emotional stability of an individual. Emotional stability refers to dynamic integration and emotional maturity as opposed to uncontrolled, disorganized generalized emotionality. This test is for 14-35 years, and takes about 20 minutes to complete.

**Reliability:** The Coefficient of reliability was computed by using Spearman Brown formula. The Coefficient of correlation found to be .87.

**Validity:** As reported by the authors validity average correlation of .80 with these well-known measures of emotional stability.

**Data Analysis** The purpose of analysis is to reduce data into intelligible and interpretable form so that the relation of research problem can be studied and tested . A systematic and sufficient treatment of the tabulated data is essential for drawing valid conclusion.

**Table 1: To assess the emotional stability of male Students.**

S. N.	Level of Emotional stability	No. of Respondents	%
1	High and extremely high	00	00
2	Average score	21	84
3	Low and extremely low score	4	16
	Total	25	100

Table 1 show that 84 % of respondents had Average emotional stability, 16% of respondent had low emotional stability no respondent had high emotional stability.

**Table 2: To assess the emotional stability of Female Students.**

S. N.	Level of Emotional stability	No. of Respondents	%
1	High and extremely high	2	5
2	Average score	36	90
3	Low and extremely low score	2	5
	Total	40	100

Table 2 show that (90.00) percent of respondents had middle emotional stability, (5.00) percent of respondent had low emotional stability and only (5) percent of respondent had high emotional stability.

**Table 3: To assess the emotional stability of male and Female Students.**

S. N.	Level of Emotional stability	Male		Female		Total	
		F	%	F	%	F	%
1	High and extremely high	00	00	2	5	2	3.07
2	Average score	21	84	36	90	57	87.70
3	Low and extremely low score	4	16	2	5	6	9.23
	Total	25	100	40	100	65	100

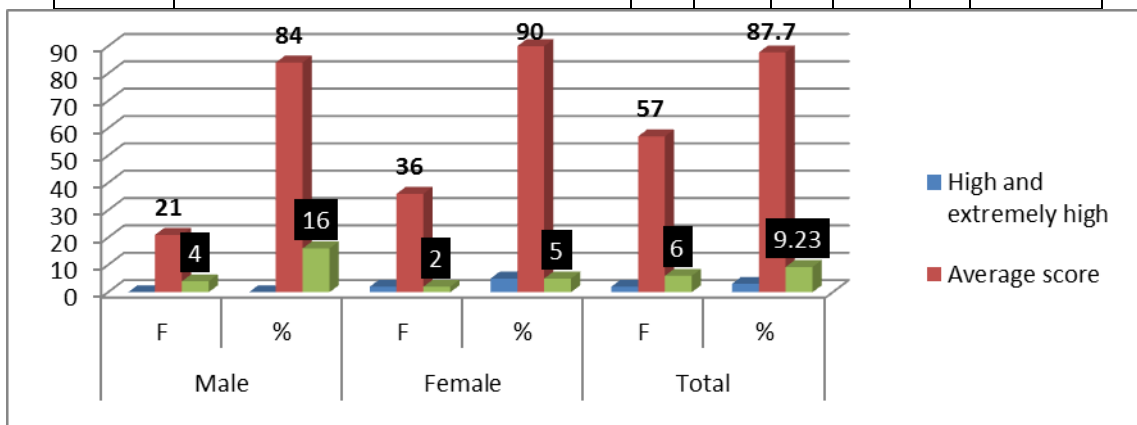


Table 3 indicated that most of the (87.70%) respondents in male sample had Average emotional stability and (9.23%) respondents had low emotional stability and only (3.03%) respondents had high emotional stability. On other hand female sample majority of the (90%) of respondents had middle emotional stability and (5%) of respondents had low emotional stability and only (5%) of respondents had high emotional stability.

**Table 4: t-value of social adjustment dimension for male and female students**

S. N.	Group	N	Mean	S. D.	t Value
1	Male	25	73.32	10.93	0.32
2	Female	40	74.22	11.36	

#### Interpretations and discussions

Table 4 shows the t-value of emotional stability of male and female students. Since the calculated t-value=0.32 is less than the critical t-value i.e. 2.00 at 0.05 level of significance so the above result reveals that there is no significant difference between emotional stability of female and male student.

#### Conclusion-

Emotional stability is considered as one of the most important aspects of human life. It affects every psychological aspect including learning of the students. It is found that if the educational college teacher trainees do not have emotional stability in the home there are chances that they may lead to the emotional unstable in their life. It may cause relationship issues, self-esteem problems, may have no self-worth, eating disorders, depression, jealousy and more. This research shows that emotional stability makes the life favorable. Most of the respondents in male among educational college teacher trainees had Average emotional stability and few respondents had low emotional stability and high emotional stability. On other hand female among educational college teacher trainee's majority of the of respondents had middle emotional stability and few of respondents had low emotional stability high emotional stability. Since the calculated t-value=0.32 is less than the critical t-value i.e. 2.00 at 0.05 level of significance so the above result reveals that there is no significant difference between emotional stability of female and male student.

#### References

1. Agrawal S. M. (2001). *A Course in teaching of modern mathematics*. Dhanpat Rai Publishing Co. New Delhi Reprint 2001. Page 403.
2. Best, J. W. & Khan, J. V. (2007). *Research in Education*. (9<sup>th</sup> Ed.). Prentice hall of India Private Limited New Delhi Page 498.
3. Bhatia and Bhatia(2007). *The Principals and Methods of teaching*. Delhi:Doaba House.
4. Bhatnagar Suresh, Kumar Sanjay, Saxena Anamika(2011). *Development of Educational System in India*. Meerut: R.Lall Book Depot.

5. Mangal, S.K. (2006). *Advanced Educational Psychology*. New Delhi: Prentice Hall of India Private Limited.
6. Sharma, R. A. (2000). *Advanced statistics in Educational and Psychology (5<sup>th</sup> Ed.)*. Surya Publication, Meerut. P. 665.

**Reports.** Buch, M. B. (Ed.) *Third Survey of Research in Education*. (New Delhi, NCERT, 1986) P. 1148.

**Websites**

- <http://www.apa.org/topics/anxiety/index.aspx>
- <https://hbr.org/2011/08/why-are-indias-women-so-stress>

## Study of Social Adjustment of Sciences and Commerce Students

**Dr. Atul Tanaji Lakade**

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### Abstracts:-

This study was conducted at the level of Home Adjustment. This study was limited to the social Adjustment of Science and Commerce students and delimited undergraduate college students. The population they used for the study included 25 Science and 25 Commerce students. This study sampled was 40 Students. Thus the level of social Adjustment of maximum Science and Commerce students was found unsatisfactory level social Adjustment.

**Keywords:** - Adjustment, Sciences and Commerce Students.

### Introduction:-

Human is generally are social animal. In this context we It can be said that the personality development of the individual in our society takes place. Environment, she tries to shape herself according to her society social values and ideals and how to achieve these values and ideals Activity and behavior will be the same as that of its other members the society she lives in and where her social needs and desires are satisfied and then adjust themselves socially. Social sector Adjustment is affected by the social maturity of the individual. Maturity Social relationships are about establishing good relationships with family Neighbors, Playmates, Classmates, Teachers and Other Members of society.

### Objectives of the Study: -

1. To study social Adjustment level on Science students.
2. To study social Adjustment level on Commerce students.

### Hypotheses:-

There would undergraduate college in Science and Commerce students. differ significantly with respect to the social Adjustment level.

### Limitation & Delimitation:-

This study was limited to Karmala taluka students. The study was delimited to social Adjustment level tested Science and Commerce students.

### Sampling:-

This research, athletes from Karmala taluka students has been studied. Only 25 Science and 25 Commerce students are involved. These students are from undergraduate college students.

### Tool Used for collected data:-

The aggression test was selected to be Sports Aggression Inventory constructed and standardized by Prof. Anand Kumar Shrivastava & Prem Shankar Shukla.

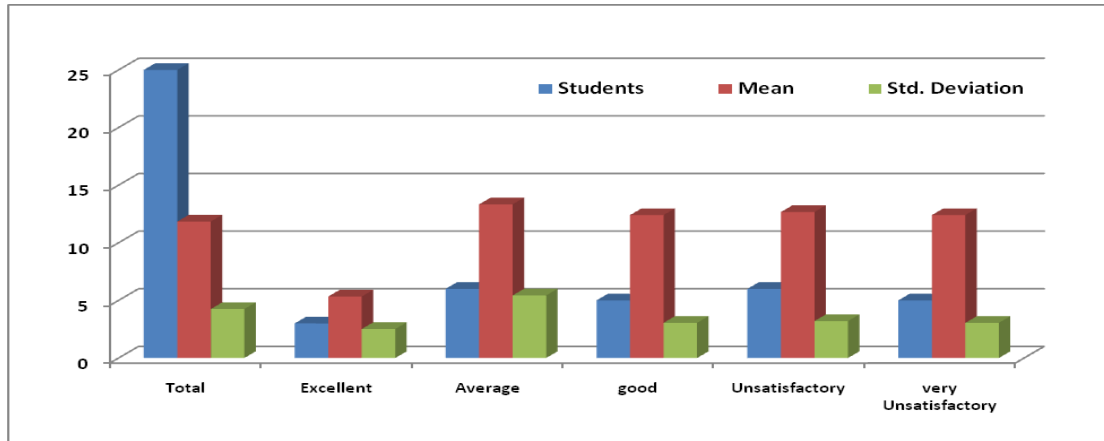
### Statistical Method:-

1. Mean
2. Standard deviation
3. "T" Values

### Findings:-The social Adjustment Level on Science Students

Adjustment Level	Total	Excellent	Average	Good	Unsatisfactory	Very unsatisfactory
Students	25	3	6	5	6	5
Mean	11.84	5.33	13.33	12.40	12.67	12.40
Std. Deviation	4.25	2.52	5.43	3.05	3.20	3.05

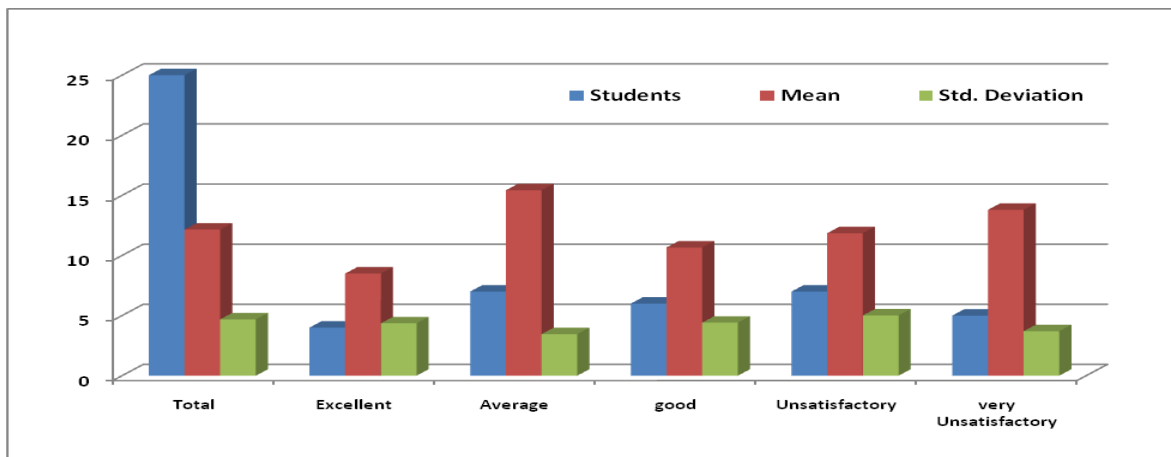
Dr. Atul Tanaji Lakade



The social Adjustment level of Science students mean scores & S.D. scores of Excellent level social Adjustment was 5.33 & 2.52, , mean scores & S.D. scores average level was 13.33 & 5.43, mean scores & S.D. scores good level was 12.40 & 3.05, mean scores & S.D. scores unsatisfactory level was 12.67 & 3.20, mean scores & S.D. scores very unsatisfactory level was 12.40 & 3.05 and mean scores & S.D. scores total social Adjustment level was 13.26 & 2.66.

**The Adjustment Level on Commerce Students**

Adjustment level	Total	Excellent	Average	good	Unsatisfactory	very Unsatisfactory
<b>Students</b>	25	4	7	6	7	5
<b>Mean</b>	12.16	8.50	15.43	10.67	11.86	13.80
<b>Std. Deviation</b>	4.69	4.36	3.46	4.41	5.01	3.70



The social Adjustment level of Commerce students mean scores & S.D. scores of Excellent level social Adjustment was 8.50 & 4.36, mean scores & S.D. scores average level was 15.43 & 3.46, mean scores & S.D. scores good level was 10.67 & 4.41, mean scores & S.D. scores unsatisfactory level was 11.86 & 5.01, mean scores & S.D. scores very unsatisfactory level was 13.80 & 3.70 and mean scores & S.D. scores total social Adjustment level was 12.16 & 4.69

**Hypothesis:** - There would undergraduate college in Science and Commerce students differ significantly with respect to the social Adjustment level.

Students	Mean	Std. Deviation	Players	df	't' value
Science	11.84	4.25	25	24	0.323
Commerce	12.16	4.69	25		

The table indicates that mean of Science and Commerce students were 11.84 and 12.16 and standard deviation where 4.25 and 4.69. The "t" value of tamed was 0.323 and table value for df 24 was 2.4851 at 0.01 level of Significance and 1.7081 at 0.05 level. The table reveals that there was significant difference of social Adjustment level was found in (**'t' = 0.323, p<0.05 ,P< 0.01**)

**Conclusions:-**

Thus the level of social Adjustment of maximum Science and Commerce students was found unsatisfactory level social Adjustment.

Hypothesis: The table indicates that mean of Science and Commerce students were 11.84 and 12.16 and standard division where 4.25 and 4.69. The "t" value of tamed was 0.323 and table value for df 24 was 2.4851 at 0.01 level of Significance and 1.7081 at 0.05 level. The table reveals that there was significant difference of social Adjustment level was found in (**'t' = 0.323, p<0.05 ,P< 0.01**) so research hypothesis was rejected. Thus the level of social Adjustment level of most Science and Commerce students was found to be unsatisfactory level social Adjustment.

**References:-**

1. **Gangopadhyay**, "Sports Psychology", (First edition)(200) Publishers Sports Publication, New Delhi
2. **Maxwell** (2004) Anger Rumination, an Antecedent of Athlete Aggression?, Psychology of Sport and Exercise 5
3. **Pandit V.R.** "Shaikshnik Mansshasrt" pinlapure & Company Publishers Nagpur 2009
4. **Mule R.S. & Umathe V.T.** "Shaikshnik Sanshodhnachi Mulattve" Maharashtra Vidhyapeth Granth Niramiti Mandal, Nagpur 1998
5. **Larson R. (2006)** "Positive youth development, willful adolescents and mentoring psychology, 34(6):677-89.
6. **Wani Atif Ashraf and V Gopinath (2019)** Comparison of aggression among different team game athletes of khelo India under 17 boys (2019), International Journal of Physiology, Nutrition and Physical Education, 4(1): 1664-1667.



## Usefulness of 06 Weeks Physical Activity Training Programme on Flexibility of Housekeeping Female

**Dr. Sushant Tanaji Magdum**

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### Abstract

The present study was undertaken to study and compare the effect of 6 weeks physical activity training, on flexibility. 40 Housekeeping females on different home of Kolhapur (Maharashtra.) were taken as the subjects for this study. The subjects were further assigned into experimental group (N=20) and control group (N=20). Six weeks physical activity training program for flexibility was given to female of experimental group only. Pre-test and post-test was conducted to measure the flexibility through sit and reach test. The age of the subjects ranged between 20-30 years. To find out the significance of difference between pre and post test means scores of the group, mean, SD and 't' test were computed and significance level was set at .01 level.. In overall statistical analysis, it was found that there was significant difference in flexibility component of as physical fitness in experimental group and Control group.

Keywords: Housekeeping Female, Physical Activity, Training programme, flexibility etc.

### Introduction

We know the result of regular physical activity are development of total personality of the human to its fullness and perfection in body, mind, and spirit. where physical development underlines muscular fitness, physical strength, endurance, resistance to disease, correct posture, shapely body, effective and efficient movement. Large muscle activity, supported by balance diet and good environment, is the single important factor. Capable of ensuring proper growth and development of child within limits and limitation of the genetic potential. Regular participation in moderate vigorous physical activity stimulates respiratory, circulatory, digestive, excretory and other body system to work at an optimal level of efficiency resulting in increased vigour, resistance to diseases, better health, greater physical capacity for productivity in work. Naturel activity such as running, jumping, throwing, chasing, pulling, pushing, hanging etc., generally known as racially old forms of activity toughen body and sharpen intellect so that the participant acquires the courage and capacity to accept and throw challenges in life.

The level of fitness which an elite athlete requires and acquires so as to perform well in his sports is significantly different from the one required for a housewife, a business executive, a school teacher, a technician, an engineer or an industrial worker. Yet fitness is the very heart and soul of an abundant and efficient living. Physical activity is the anchor to achieve the objective of physical development.

### Objectives of the study

1. To find out of the physical fitness Housekeeping Female
2. To design the Physical activity training programme for Housekeeping Female.
3. To determine the usefulness of Physical Activity training programme for Housekeeping Female.

### Methodology

#### Selection of Subjects

The subjects were selected from different homes of Kolhapur (Maharashtra). 40 female aged 20 to 30 years. The subjects were further assigned into two groups experimental and control group consist of 20 subjects in each group. The experimental group underwent 6 weeks training whereas control group was playing their regular routine.

#### Test Used

The sit and reach test from AAPHERED health related physical fitness components was selected to measure the flexibility components of physical fitness.

#### Criterion Measure

A typical measurement of flexibility is the sit and reach test, which precisely tests the stability of the lower back as well as hamstring muscles.



**Equipment required:**

Sit and reach box Scoring: The score is recorded to the nearest centimetre or half inch as the distance reached by the hand. The level of the feet was marked as the zero mark.

**Collection of Data**

Measurements for selected variables was recorded as per the instructions given in literature and manual. All the results were taken in numerical form for further analysis. These numerical scores of each test/measure recorded, represented the data for the present study.

Statistical Analysis To assess the flexibility of housekeeping female' significance of the difference between the pertest and post test scores, of flexibility of housekeeping female, 't' test was applied. Statistical The significance level was set at 0.05 level.

**Results**

To find out the significance of the difference between the pre-test and post test scores on flexibility of housekeeping female in experimental and control groups, 'mean, SD and t-ratio were computed and data pertaining to this has been presented in Table 1 and 2 and depicted in figure

**TABLE 1****Significance of Deffrence between Pre-Test and Post-Test Mean Scores of Housekeeping Female on Flexibility of Experimental Group**

Test	N	Mean	SD	MD	DM	t-ratio
Pre- Test	25	7.21	1.45	0.85	0.20	4.10
Post Test	25	8.07	2.02			

\*Significant at 0.01 level

t.05 (38) = 2.02

Table 1 indicates that the statistically significance of difference was observed between mean scores on Pre-test and post-test of experimental group housekeeping female on flexibility component of physical fitness, as the obtained t-value of 4.10 was higher than the required t05(38)=2.02

**TABLE 2****Significance of Deffrence between Pre-Test and Post-Test Mean Scores of Housekeeping Female on Flexibility of Control Group**

Test	N	Mean	SD	MD	DM	t-ratio
Pre- Test	25	6.35	1.48	0.66	0.22	2.02
Post Test	25	7.12	1.21			

\*Significant at 0.01 level

t.05 (38) = 2.02 T

able 2 indicates that the statistically significance of difference was observed between mean scores on Pre-test and post-test of control group housekeeping female on flexibility component of physical fitness, as the obtained t-value of 2.02 was similar with the required t-05(38)=2.02

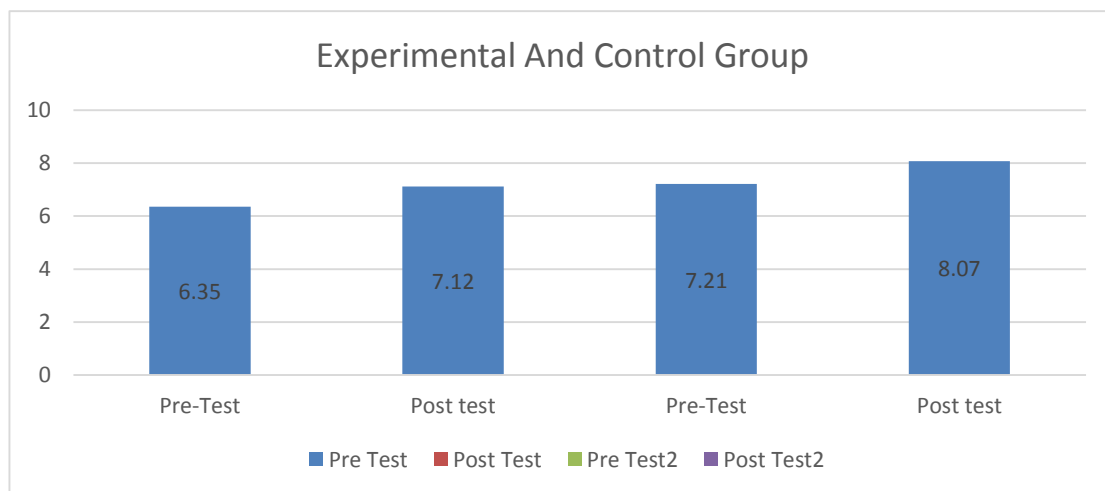


Figure 1. Mean Scores of Pre-Test and Post-Test Scores on Flexibility of Experimental Group and Control Group housekeeping Female

**Conclusion**

Housekeeping Female of experimental group as well as control group were found to have significant difference in their Pre-test and post-test mean scores on flexibility component of physical fitness.

**References**

1. Bany L. and Nelson, Jack K. (1988), Practical Measurement and Evaluation in physical Education, New Delhi: Surjeet publication.
2. Dutt, Sunil (2005), Health Related physical Fitness of Males aged 8 to 18 years, Journal of exercise science and physiotherapy,1(2), 12-22, (2005)
3. Kumar, Sinku (2012). Effect of Health-Related Physical Fitness Programmes on the Cardio-Respiratory Function of Sedentary Students. Journal of Exercise Science and Physiotherapy, Vol. 8, No. 2: 1-7.



## Economics of Yoga

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### Introduction

In this covid -19 Pandemic Situation Physical and Mental Health is most needful, and it's get from YOGA. yoga improves our mental health and immunity power.so physical fitness is very needful in all people in this Situation. In various Study we know the people were very conscious in health so they mostly join Yoga classes. This Yoga Industry create more job opportunity. Now private sector grow investment in yoga industry for more profit i.e. Patanjali. AS well as Govt of India also allocate more money through AYUSH ministry for this Industry. Health is the greatest blessing of all. Health is not just the absence of disease. To enable the individuals to lead a life of complete physical, mental and social well-being.so yoga is need of all society for better health, and hence yoga industry is fastest growing industry in Indian Economy.

### Objective of the study

- 1) To study a growth of Economy through Yoga industry.
- 2) To study the opportunity of employment in Yoga Industry.
- 3) To study the expansion of Yoga Industry.
- 4) To study the benefit of Yoga Industry in Indian Economy.

### Importance of Yoga In Human Life

- 1) Yoga develops the physical and mental health.
- 2) Yoga keep person young.
- 3) Yoga strengthens the back and abdomen muscle.
- 4) It will enlarge the thoracic cavity.
- 5) Yoga relives from stiffness.
- 6) Yoga removes excess fat.
- 7) Yoga strengthens mental balance.
- 8) Yoga is the key of mind
- 9) Yoga is key of daises free life
- 10) Yoga is the key of happiness

### Yoga Industry And Indian Economy

Yoga industry is Fastest growing through latest technology and smart setup and international event .AS per study Yoga event manager or owner as well as studio owners monthly gross earning in lakhs, which is more than sufficient for good life style. So many investors and good trainer of Yoga attract towards this Industry. and gradually growing investment in this Industry. Here most pointed thing is not only growing yoga service but also accessory and hard ware for yoga like dresses Jim instruments, and also publications in Yoga, hence industrial growth, investment and earning also grow faster and such things are important in economic Development. This Yoga industry also captured international market. Audio things and video things and also publication is export from this Industry. covid 19 is pandemic but this thing is cause for fastest growing for this Industry. thus, we get more foreign currency for this export which is important in economic growth. Indian chambre of commerce and industry (FICCI) point out that the share of this industry is more than two billion in India. In India covid 19 period suffer many people from mental problem and physical problem. And due to those reason, many people associate various Yoga studio and trainer, and develop Yoga Industry. And also raise domestic demand of Yoga concern material, and these things help to develop Economy of India so in this way Yoga industry major role to develop Indian Economy and also grown Employment. In India, Indian prime minister also Promote yoga culture in India.in our country 21<sup>st</sup> June is celebrating the Yoga Day, inculcating and campaigning of Yoga culture In India International Yoga Day in now mega cultural event. promoting in Yoga Industry always support from AYUSH ministry. If we think about world China is main exporter in Yoga accessory in western market. but in the recent past we know the crises in America and China, this thing makes a opportunity to create a space in Yoga accessory export in western country and make it fruitful, this thing rase a market

share of India in world and make it very useful in employment creation and needful in development of Indian Economy.

#### **Government Policy To Promoting Yoga**

The ministry of AYUSH is formed by Indian government, the Hon arable prime minister of India while addressing the 69<sup>th</sup> session of United nations general assembly in 2014 urged the world community to adopt an international day of Yoga the member of UNGA approval the proposal with consensus with 177 co-sponsoring countries in UNGA the resolution to established 21th June as a international Yoga day on 21th June 2015 at Rajpath New Delhi, many people participated in this yoga day this in world record, and it note in Guinness book.

#### **Benefit Of Yoga Industry For Indian Economy**

- 1) growth in employment generation through Yoga Industry
- 2) Improve health of employers in Indian Industry .
- 3) India is one of the leading exporters in Yoga accessory.
- 4) Growing share of earning foreign currency in economy.
- 5) Major role expensing in domestic goods market.
- 6) Rishikesh, Pune, Goa and also Goa is the Yoga Capitals
- 7) Role of yoga Industry to develop tourism sector
- 8) Government have big earning source as a GST from Yoga Industry.
- 9) WHO launches of Anuretic research centre in India which promote economy of India.
- 10) India emerging as a global wellness and Ayurvedic HUB this helps to develop of Indian economy.

#### **Conclusion**

Someone says Yoga experienced only Through Tired less Practice. Yoga is key of health, happiness and long life. Now government promoting and campaigning for Yoga. WHO and ministry of Aayush government of Indapamide Yoga industry Now Yoga industry is fastest growing industry in Indian Economy, which is benefitted in employment generation and earning sources of Earning, thus yoga industry helps to develop of Indian Economy.

#### **References**

1. <https://businesseconomics.in> ›
2. <https://proutglobe.org>
3. <https://m.economictimes.com> › ..
4. <https://www.ibef.org> › ...
5. <https://smartasset.com> › ...



## Effect of Pranayama on Vital Capacity And Its Correlation With Performance In Sprint Event of Female Athlete

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### Abstract:

Pranayama is a yogic exercise in respiration that results in the harmonious functioning of the body. Pranayama is able to influence these systems and secure their efficient and harmonious working it improves the capacity and smooth functioning of vital capacity. Pranayama help to supply oxygen to the blood. It also stimulates proper working of vital organs in the respiration system and nervous system and nervous system. Level of vital capacity improves due to regular practice of pranayama.

### Introduction:

In fact the application of pranayama in professional sport has become an interesting aspect in itself. It has been found especially helpful; to sportsmen to improve performance in their sports skills due to increase in their level of physical fitness also, these are number of aspects of pranayama application to sports that we could consider here firstly as a means of aspects of pranayama application to sports that we could consider here firstly as a means of improving the strength of musculature system, secondly as a means of improving the concentrations and decision making power and thirdly for promotion of particular game. What we mean by promotion of spots is improvement in basic fitness increase of specific sports skills and the understanding and control of certain psychological factors. All systems of body are exercised in pranayama. In fact pranayama is not only control the different psychological function but it is control of the very light process that vitalizes the human organism also. Finally, due to pranayama practice the sportsman can improve the physical fitness and performance of their sports skills. It is overall effect of pranayama on vital capacity and its correlation with performance in sprint event. The science of pranayama is based on, the retention of prana called 'kumbhaka' among the many kinds of pranayama anulom. Vilom and bhasrika are considered as one of the significant types of the core structuration of pranayama. Bhasrika pranayama is mainly a combination of kapalbhathi and ujjayee. Pranayama is the practice of breath control, namely its prolongations and resistant. Pranayama is also effective at reducing stress and anxiety and most of the volunteers felt calmness of mind.

### Aim of study:

1. The study is important for the improvement of sprint performance.
2. The study is important for the coaches of athletics.
3. The study is help to the teachers for their teachers for their teaching athletics specially spirit event.
4. The study is contributes the new knowledge and literature of athletics.

### Objective of the study:

To determine the effect of pranayama on vital capacity.

To determine the effect of pranayama on vital capacity and its correlation with performance in sprint event.

### Hypotheses:

It is hypothesized that the effect of pranayama on vital capacity of lungs.

It is hypothesized that effect of pranayama on vital capacity is correlated with performance in sprint event.

### Research Methodology:

#### Types of research

This research is experimental type.

All 200 female athletes will given test of AAHPER test item which are divided into two equal groups. Experimental group and control group.

#### Selection of sample

District level 200 female athletes will be selected on random sampling Solapur town. PAH Solapur University, Solapur athlete.

#### Tools of research AAHPER Test item

1. 50 m Dash
2. 200 m Actual sprint Performance

3. Standing Board jump
4. Sit- Ups
5. Sit and Rich test
6. Harvard step test

**Procedure of data collection:**

The research is experimental study. All 200 female athlete given pre test and post test

In this study experimental group given set of pranayama for 3 months.

Daily one hour and control group have no special treatment. They give only free play.

**VARIABLE:****Dependent variable**

The following dependent variable-200 m actual sprint performance, explosive strength, abdominal strength of lower limb.

**Independent variable:**

A set of pranayama given to the female athletes.

**1. Bhasrika**

Bhamari

Anulom Vilom

Kapalbhati

The geographical atmosphere during the total period of experiment was identical. However the experiment was conducted by following phases.

1. Pretest phase
2. Training phase
3. Post test phase

**Pre test:**

Some of the items of the set of pranayama were administered on all the selected subject of both of the control and experimental group as a pre-test

**Training Program:**

The training program concerned immediately from next day after the pretest was over. The training was administrated to the experimental group in a indoor hall for period of 3 month for accurate experimental set up along with the controlled group were play freely in that hour. During the total experimental period 3 month

**Post test:**

At the end of 3 month training period the experimental and control group were tested A set of pranayama for post test data.

**Statistical analysis:**

Statistical technique employed for effect of pranayama on vital capacity and its correlation with performance in sprint event of female athlete.

Mean and the t scale and t value were used to prove the effect of pranayama on vital capacity and its correlation with performance in sprint event of female athlete.

**Findings/results:**

There is significant improvement of pranayama on vital capacity.

There is significant improvement of pranayama on vital capacity and it's correlation with performance in sprint event.

**Reference:**

1. Best, John W (1983) 'research in education' prentice hall of India/, NewDelhi fourth edition.
2. Gharote M.L., "effect of short term yogic training programmers on the physical fitness school boys." A vagahana, 1, 1978.p.13.
3. Gharote M.L. "applied yoga. Yogic practices part I, yogic practices part II yogic practices part III
4. Kamlesh, M.L. (1986). "methodology of research in physical education and sport." New Delhi: metropolitan book co, pvt.ltd.

## A Geographical Study of Agricultural Productivity in Lower Sina Basin

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### Abstract:

Agricultural productivity is a measure of efficiency with which inputs are used to provide an output. The measurement of agricultural productivity helps in knowing the area that is performing rather less efficiency in comparison to the neighboring areas. By delimiting the areas of low, medium and high productivity, agricultural plans may be formulated to remove and minimize for the regional inequalities. It also provides an opportunity to ascertain the ground reality, the real cause of agricultural backwardness of a region. Therefore, attempt is made here to study agriculture productivity in lower Sina basin. This paper is based on secondary data source. To determine agricultural productivity Jasbir Singh's method (1976) is applied. The study reveals that high agricultural productivity of Jowar in Karmala, Barshi and North Solapur tahsil, is a result of development of surface irrigation facilities and black soil. The high agricultural productivity of Sugarcane in Madha and Mohol tahsil mainly due to the Bhima-Sina joint canal, while it is low in Paranda, Barshi and South Solapur tahsil due to the lower development of surface irrigation facility.

**Keywords:** Agriculture, Productivity.

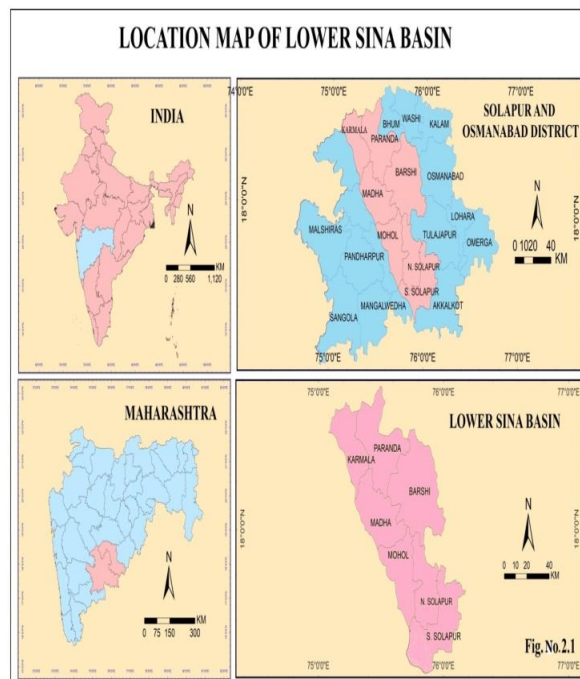
### Introduction:

Agriculture productivity is a function of number of factors including physical, Socio economical and technical organization, mechanization (Noor Mohammad and Majeed Abdul, 1995). These factors are highly variables and dynamic both in space and in time leading to spatio-temporal variations in agriculture productivity. The regional differences in agricultural productivity are the result partly of natural advantages of a biotic environment and partly of farming efficiency as controlled by cultural ecology. The choice of farm inputs, and their relative quantities, and the techniques and the skill is largely depend on education and educational attainment of farmers (Nanaware A.H., 2018). It is widely accepted that agriculture production is the result of combinations of infra-structural elements, viz, physical, techno-economic, socio-economic, socio-culture, etc. by which agriculture efficiency is influenced (Singh S. and Chauhan V. S., 1994). By delimiting the areas of low, medium and high productivity, agricultural plans may be formulated to remove and minimize for the regional inequalities. It also provides an opportunity to ascertain the ground reality, the real cause of agricultural backwardness of a region. Therefore, attempt is made here to study agriculture productivity in lower Sina basin.

### Location of study region:

The study area is located in South central part of Maharashtra State. It is situated between 17<sup>0</sup> 20' 22" North latitude to 18<sup>0</sup> 40' 00" North latitude and 75<sup>0</sup> 02' 00" East longitude to 76<sup>0</sup> 10' 00" East longitude. It lies on the Deccan plateau. On an average height of study area is 510 meters above mean sea level. The study region is bounded to the North by upper Sina basin, to the East by Manjra sub basin No 4 to the West by upper Bhima basin No 17 and 18 to the South side

is bounded by Karnataka State. Its shape is roughly rectangular, its East side covered by large area of the Balaghat ranges and uneven with patches of low level plain. The total geographical area of Sina basin is 12742 square kilometers and total length of river is 300kilometers out of them length of lower Sina is 180





kilometers and total geographical area of lower Sina basin is 6683.3 square kilometers. Lower Sina drains total seven tahsil of Maharashtra State, out of them six tahsil are Solapur district i.e. Karmala, Barshi, Madha, Mohol, North Solapur and South Solapur, one tahsil are Osmanabad district i.e. Paranda tahsil.

#### Objectives:

The main objective of the present study is to analyse agriculture productivity in lower Sina basin.

#### Data Collection and Methodology:

The present study is based on secondary data source. To fulfill the objective data regarding per hectare yield and production is collected from Socio Economic review and District Statistical Abstract of Solapur and Osmanabad districts. Agricultural epitomes published by state Government for the period of 1991-95 and 2011 to 2015. After data collection, the data is processed. To avoid fluctuation and to get reliable result the five years average is taken into consideration. Tahsil is taken as the basic unit of investigation. To determine agricultural productivity, the technique introduced by Jasbir Singh (1976) is applied.

The procedure explained as follows.

$$Y_i = \frac{Y_{ae}}{Y_{ar}} \times 100$$

Where,

$Y_i$  = is the crop yield index.

$Y_{ae}$  = is the average yield per hectare of crop 'a' in the component enumeration unit.

$Y_{ar}$  = is the average yield of the crop 'a' in the entire region.

$$C_i = \frac{P_{ae}}{P_{ar}} \times 100$$

Where,

$C_i$  = is the crop concentration index.

$P_{ae}$  = is the percentage strength of crop 'a' in the total cropped area in the Component enumeration unit.

$P_{ar}$  = is the percentage strength of crop 'a' in the total cropped area in the entire region.

The derived crop yields and concentration indices for crops are ranked separately, yield and concentration ranks for individual crops are added and there after divided by two thus giving the crop yield and concentration indices ranking coefficient.

Crop Yield and Concentration Indices Ranking Coefficient For Crop-A	=	$\frac{\text{Crop Yield Index Ranking Crop 'A' + Crop Concentration Index Ranking Crop 'A'}}{2}$
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The equation is as follows.

This will give an idea of the level of agricultural productivity. The lower the ranking coefficient, the higher the level of agricultural productivity and vice versa. This technique helps to identify the crop of good level of productivity in the region. The ranking coefficients for individual crops thus derived are arranged in order and coefficients are grouped in to three efficiency grade viz. high grade, moderate grade and low grade for discussing the spatial variations in the region. In similar way, adding the value of all the crops selected for each tahsil and divided by 'n' has divided overall ranking coefficient. Where 'n' refers to selected crops having percentage strength above 5. On the basis of Jasbir Singh's technique the result and conclusion are drawn.

#### Result and Discussion

##### Agricultural Productivity in Selected Crops:

##### Jowar:

The table 1 shows that the high productivity of Jowar was observed in North Solapur and Mohol tahsil during 1991-95. The moderate productivity is recorded in Karmala, Barshi, Madha and South Solapur tahsil. It is low only in Paranda tahsil due to low rainfall. The table1 shows that the high productivity of Jowar was observed in Karmala, Barshi and North Solapur tahsil during 2011-15. The moderate productivity of Jowar is found in Madha and Mohol tahsil, while it is low in South Solapur and Paranda tahsil due to lower development of irrigation facilities. During the period investigation Jowar productivity decreased as per gradation high to moderate change from Mohol tahsil and moderate to low South Solapur tahsil because with the increase of irrigated area under Jowar is devoted to cash crops i.e. Sugarcane respectively.



**Wheat:**

The table 1 indicates that the high productivity of Wheat is observed in Barshi and Mohol tahsil during 1991-95. The moderate productivity is recorded in Karmala, Madha, North Solapur and South Solapur tahsil. It is low only in Paranda tahsil due to low rainfall. The table 1 shows that during 2011-15, high productivity of Wheat was observed only in Mohol tahsil due to use of high yielding varieties and availability of water for irrigation. The moderate productivity of Wheat is recorded in Madha, North Solapur and South Solapur tahsil. It is low in Karmala, Barshi and Paranda tahsil. During the period of investigation the productivity of Wheat is increased in Madha and Mohol tahsil because with the increase of irrigated area under Wheat crops respectively.

**Table 1: Crop Yield & Concentration Indices Ranking Coefficient of Selected Crops (1991-92 to 1995-96 and 2011-12 to 2015-16)**

1991-92 to 1995-96							
Tahsil	Jowar	Wheat	Maize	Tur	Gram	Groundnut	Sugarcane
Karmala	4.5	4	3.5	5.5	2.5	2	4.5
Barshi	4.5	2.5	3	1.5	1	2	5.5
Madha	4.5	5	5	4	5.5	4.5	2
Mohol	2	1	2.5	4.5	5	5	3
N. Solapur	1	4	3.5	5.5	5	5	3.5
S. Solapur	4.5	4.5	4	4	5.5	5	2.5
Paranda	7	7	6.5	3	3.5	4.5	7
2011-12 to 2015-16							
Tahsil	Jowar	Wheat	Maize	Tur	Gram	Groundnut	Sugarcane
Karmala	2	5.5	1	4.5	6	3	4
Barshi	2	5.5	4.5	1.5	2	2.5	5.5
Madha	4.5	3	3	4	5	6	2
Mohol	4.5	1	2.5	4.5	3.5	4	1.5
N. Solapur	2.5	3	4.5	5	7	5	3
S. Solapur	5.5	3.5	5.5	5	2.5	3.5	5
Paranda	7	6.5	7	3.5	2	2	7

Source: Compiled by researcher, on the basis of Socio economic Review and district Statistical Abstract of Solapur and Osmanabad District 1991-92 to 2015-16, Chief Statistical office of Agriculture Maharashtra State, Pune.

**Maize:**

The table 1 shows that during 1991-95, the high productivity of Maize was recorded in Karmala, Barshi, Mohol and North Solapur tahsil. The moderate productivity is recorded in Madha and South Solapur tahsil. It is low only in Paranda tahsil due to low rainfall.

During 2011-15, the high productivity of Maize was observed in Karmala and Mohol tahsil due to increase in irrigated area. The moderate productivity of Maize is recorded in Barshi, Madha and North Solapur tahsil, while it is low in Paranda and South Solapur tahsil.

During the period of investigation the productivity of Maize increased in Madha and Karmala tahsil, due to high yield varieties and increased in irrigated area.

**Tur:**

The table 1 indicates that the high productivity of Tur was recorded only in Barshi tahsil in 1991-95. The moderate productivity of Tur recorded in Paranda, Madha and South Solapur tahsil. It is low Karmala, Mohol and North Solapur tahsil. During 2011-15, the high productivity of Tur is observed only in Barshi tahsil due to favorable soil and climate. The moderate productivity of Tur is recorded in Madha and Paranda tahsil, while it is low in Karmala, Mohol, North Solapur and South Solapur tahsil.

During the period of investigation the productivity of Tur increased in Paranda and Barshi tahsil due to high yield varieties.

**Gram:**

The table 1 exhibits that the high productivity of Gram was recorded in Karmala and Barshi tahsil during 1991-95. The moderate productivity of Gram is recorded only in Paranda tahsil, whereas it is low in Madha, Mohol, North Solapur and South Solapur tahsil.

During 2011-15, the high productivity of Gram is recorded in Barshi, Paranda and South Solapur tahsil. The moderate productivity of Gram is recorded in Madha and Mohol tahsil, while it is low in Karmala and North Solapur tahsil.

During the period of investigation the productivity of Gram was increased in Barshi and Paranda tahsil due to high yield varieties.

**Groundnut:**

The table shows that during 1991-95, the high productivity of Groundnut was recorded in Barshi and Karmala tahsil, whereas the low productivity of Groundnut was recorded in Madha, Mohol, North Solapur, South Solapur and Paranda tahsil.

The table shows during 2011-15, the high productivity of Groundnut is recorded in Barshi and Paranda tahsil due to development of surface irrigation facilities. The moderate productivity of Groundnut is recorded in Karmala, Mohol and South Solapur tahsil, while it is low in Madha and North Solapur tahsil.

During the period of investigation the productivity of Groundnut was increased in Karmala and Paranda tahsil due to development of irrigation facilities.

**Sugarcane:**

The table 1 shows that during 1991-95, the high productivity of Sugarcane was found in Madha, Mohol, North Solapur and South Solapur tahsil. The moderate productivity of Sugarcane is recorded only in Karmala tahsil, while it is low in Barshi and Paranda tahsil.

The table 1 indicates that during 2011-15, the high productivity of Sugarcane is recorded in Madha and Mohol tahsil due to Bhima-Sina joint canal. The moderate productivity of Sugarcane is recorded in Karmala and North Solapur tahsil, while it is low in Paranda, Barshi and South Solapur tahsil.

During the period of investigation the productivity of Sugarcane was increased in Madha, Mohol and North Solapur tahsil, mainly due to development of surface irrigation facility.

**Conclusions:**

The study reveals that agricultural productivity in study region is function of geographical factors. The high agricultural productivity of Jowar in Karmala, Barshi and North Solapur tahsil is a result of fertile black (regur) soil and availability of irrigation facility. The high productivity of Wheat is recorded in Mohol tahsil due to use of high yielding varieties and availability of irrigation. The high productivity of Tur in Barshi tahsil is a result of favorable soil and climate. The high productivity of Sugarcane in Madha and Mohol tahsil mainly due to the Bhima-Sina joint canal and development of surface irrigation facility, it is low in Paranda, Barshi and South Solapur tahsil because of lower development of surface irrigation facility.

**References:**

1. Husain Majid (2010): Systematic Agricultural Geography, Rawat publication, Jaipur and Delhi, PP. 244-245.
2. Nanaware A. H. (2018): Impact of Educational Attainment on Per Hectare Yield of Sugarcane: A Case Study of Village Chavanwadi in Solapur District 'Research Journey' International Multidisciplinary E-Research Journal Special Issue 80 (A) PP.45-50.
3. Noor Mohamd and Majeed Abdul (1995): Determinants of Agricultural productivity in arid regions, Concept publication Company, New Delhi, P. 101.
4. Singh S. & Chauhan V.S. (1994): Measurement of Agriculture Productivity: A Case study of Uttar Pradesh, Geographical Review of India, Vol. 39 PP.222-230.



## Sports & Physics

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### Abstracts:-

When people imagine of sports, they don't think of physics. But the influence of physics can be seen in every aspect of the sports. There is a lot of physics involved in every movement in the sports. Several values of physics are used in each sport. No sports can be played not including physics. Physics plays an important role in sports.

**Keywords:** - Sports, Motion, Force

### Introduction:-

Physics is not only relevant to the big questions, of where the universe came from and how it works and it has much real life application too. Sport is just one of them. Physics plays dominant role in the way athletics perform and the way the sport is played. Almost in every sport there is a great importance of physics and their principles, laws, units and measurements play very sound role in each and every activity of sports and sportspersons. They utilize multiple principals of physics in sports. When you play sports, lift weights, or buy sports equipment, you probably don't know how greatly physics is useful to it. The performer must have high information of physics, as all Sports involve motion, force and gravity.

### Motion: -

Most human movements are complex combination of the forms of motion. In general all motion may be described as translation (lines motion) and rotation some combination of these two.

### Linear motion: -

Linear motion is a motion along a line that may be straight or curved. In linear motion, all parts of the body are moving in the same direction at the same speed. Linear motion is also referred to as translatory motion or conversion. An example of linear motion is an sportsperson running 100m along a without stopping track.

### Rotatory motion: -

Rotation around a fixed axis is a unique case of rotational motion. The static axis theory excludes the possibility of changing the orientation of the axis and cannot give a turn or pre-explanation of such phenomena. According to Euler's rotation theorem, it is impossible to rotate more than one axis at a time. If two rotations were enforced at the similar time, a new axis of rotation will appear. Swings and turns affect the player's movements as they move around the limb joints.

**Curvilinear motion:** - When the body moves in linear motion and if the line is curved then the motion becomes Curvilinear. An example of curvilinear motion is when a player throws a spear

### Force: -

Force means pushing or pulling on the body. The body's "rest" or state of motion can be changed by other body functions. Force can also be defined as the production of body mass and the acceleration of that body due to the use of force.

### Centripetal force :-

From Latin *Centrum* "center" and *peter* "to seek" is a force which causes the body to move in a curved way: its direction is always orthogonal to the fixed point of the instantaneous center, its velocity Body. The curvature of the path. The central force is usually the cause of circular motion. Example in 200 m. the runner is crossing the first curve while running which has pulled him inside the force.

### Centrifugal force: -

From Latin *Centrum*, meaning "center", and *figure*, meaning "to flee" is an apparent force that pulls a rotating body away from its center of rotation. This is due to the inertia of the body as the path of the body is constantly redirected. In Newtonian mechanics, the term centrifugal force is used to refer to one of two different concepts: the inertial force found in a non-inertial reference frame (also called force an "imaginary") and the centripetal force. The reaction force associated with the force. Example 200 m. the runners run, cross the other curve, and get them outside.

### Conclusion:-

It is conclusion from the above details each & every movement in sports contains a great deal of physics. The above presented laws & principles were used in sports. Physics is the study of various forces that act on the human body & the effect that such forces produce. It is concerned with both the internal and external forces and their participation in performance. In sports it helps to determine the techniques that will enhance or limit.

Physics is concerned with the scientific study of movement and areas such as the musculoskeletal system, the application of physics to human motion and sport object motion.

**References:-**

- 1) <http://en.wikipedia.org>
- 2) SCIENCE TEXT BOOK FOR CLASS VIII, IX प्रकाशन NCERT 2006
- 3) विज्ञान आणि तंत्रज्ञान इयत्ता नववी ,प्रकाशन महाराष्ट्र राज्य माध्यमिक व उच्च माध्यमिक शिक्षण मंडळ, पुणे २०१०
- 4) कोचिंग अँड ऑफिशिएटींग गेम्स अँड स्पोर्ट्स ,डॉ .व्ही .एस . वांगवाड प्रकाशन डायमंड पब्लिकेशन्स,पुणे २००८
- 5) Science of sports training , Singh hardyal, D.V.S. publication, New Delhi.1995



## Study of the problems of Teachers of Physical Education in the Covid-19

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### Abstract

The present paper is about the survey of the problems of UG Teachers of Physical Education in the Covid-19 pandemic. In this paper, researcher pointed out some of the views of the Teachers of Physical Education who worked frontline in Covid -19 pandemic.No doubt that Covid 19 has a great effect on every field. It has also great effect on those Teachers of Physical Education who had so many problems and obstacles. But the efforts of these Teachers of Physical Education have shown great result in this situation.UG Teachers of Physical Education are everywhere to face this critical situation but Teachers of Physical Education are facing this critical situation with great effort and dare. But researcher through the online questionnaire through google forms collected the data about the survey of the problems of Teachers of Physical Education in covid -19. The present paper is focused on this issue.

**Key words** - Teachers of Physical Education, Covid-19

### Introduction

As we know that Covid -19 is the great threat to the world. It is so dangerous and burning issue in all over the world. Doctors, Nurses, Scientists, frontline workers, Teachers are the real hero in this situation. In the present study researcher has focused on the survey of the problems of UG Teachers of Physical Education in Covid 19 pandemic. In this paper, researcher pointed out some of the views of the UG Teachers of Physical Education in Covid -19 pandemic.No doubt that Covid 19 has a great effect on every field. It has also great effect on those frontline workers and UG Teachers of Physical Education who fought this war with so many problems and obstacles. The efforts of these UG Teachers of Physical Education have shown great result in this situation.Teachers of Physical Education are everywhere to face this critical situation but UG Teachers of Physical Education are facing this critical situation with great effort and dare. But researcher through the google form questionnaire collected the data about the survey of the problems of UG Teachers of Physical Education in Covid -19. The present paper is focused on this issue.

### Need and Importance of the Research

The present research has focused on the discussion of the UG Teachers of Physical Education and their problems. This research is beneficial to study the problems and challenges before UG Teachers of Physical Education and to suggest some remedies to it. Researchers studied the main problems and challenges in front of them while working in Covid 19 pandemic and also interact with the UG Teachers of Physical Education to discuss it.

The present research is also important for the following reasons like one should know the present condition of the UG Teachers of Physical Education and teaching learning process. Due to that education system can make some support to the UG Teachers of Physical Education. It is also important to understand the problems of UG Teachers of Physical Education related to the Covid 19 and conducting practical of Physical Education subject. In India UG Teachers of Physical Education conducted theory through the online mode but the problem was about conducting practical work of the students.. They are facing many problems already like lack of the support from students and society, economic problem, no time limit of the work, lack of proper facilities etc.It is also important to know the challenges before them related to the survey of the Covid-19.The present research paper also focused on remedies to minimize the problems before UG Teachers of Physical Education. For all these reasons, this research is very important. Followings are the objectives of the present research.

### Objectives of Research

- 1] To know the present condition of the UG Teachers of Physical Education.
- 2] To understand the problems of UG Teachers of Physical Education related to the Covid-19 pandemic survey.
- 3] To know the challenges before them related to the UG Teachers of Physical Education and conducting practical. .

Mr Mahadeo Sadashiv Waghmare Prof. Dr. Anil Gahininath kamble

4] To suggest remedies to minimize the problems before UG Teachers of Physical Education.

**Delimitations of the Study**

- 1] The study has been delimited to the Karmalatahasil only
- 2] The study was delimited to the views of UG Teachers of Physical Education who are working in Covid - 19 for the completion of the syllabus and practical.
- 3] The present study is limited only for the UG Teachers of Physical Education in rural area.

**Research Methodology:**

To conduct the present research it was very necessary to select the proper methodology. According to the title of the research and objectives of the research, Researcher has used Survey method for study. It helps to achieve the objectives of the present research.

**Research Sample:**

The purposive sampling method has been used and Researcher has selected 10 UG Teachers of Physical Education and 20 Students from the UG level from two Colleges of Karamala Tahasil

**Research Tools:**

Researcher has used self made questionnaire, standardized by 5 experts of same field. Interview schedule is prepared according to the objectives of the research.

**Research Procedure:**

1. Researcher has prepared questionnaire with the help of google form. This questionnaire is used to collect the data from UG Teachers of Physical Education and students of UG level
2. Researcher collected the data from UG Teachers of Physical Education who are working in colleges and also from students.
3. Researcher prepared some conclusions according to the collected data.

**Statistical Procedure:**

Researcher collected the data and with the help of Mean and percentage, researcher analyzed and interpreted the data.

**Analysis of Data:**

After the collection of the data, researcher analyzed it and made some conclusions which are mentioned here as research findings.

**Findings:**

- 1] Majority of the UG Teachers of Physical Education stated that they have lack of proper facilities related to the online lectures or teaching learning process.
- 2] They have a big challenge in front of them about the lack of the proper support of the students while conducting the possible online practical.
- 3] Some of the UG Teachers of Physical Education pointed out that they have no full support of the students and their family to complete the practical work of the Physical education subject. Students need proper instruments which were not available for them at home.
- 4] Most of the UG Teachers of Physical Education pointed out about the problem of feedback and proper evaluation of the students work through online mode.
- 5] Most of the students hesitate to ask the questions and also they don't have enough space at home for the practical work related to the physical education subject.
- 6] According to the survey it is clear that though they have many problems but most of the UG Teachers of Physical Education are satisfied with their job. They think that this one is the critical situation but we have to face it.
- 7] According to the UG Teachers of Physical Education they also felt the physical and mental stress in this situation. Students also tried to complete the work given by their teachers but it had some limitations.

**Conclusion**

In this paper, researcher tried to collect the problems of UG Teachers of Physical Education Covid-19. For this purpose, researcher collected the information through online mode and analyzed it and made some conclusions about their problems and challenges of the UG Teachers of Physical Education. But one thing is observed from the UG Teachers of Physical Education is that development of the Fighting spirit against difficult situation is one of the positive things which we can see in this situation. In this situation, UG Teachers of Physical Education have shown great courage and patience to handle this situation. They tried to minimize the educational loss of the students.

**References**

1. **Books**
2. Best, J. W., & Khan, James V. (1986). Research in Education. New Delhi: Prentice- Hall of India Private Limited.

3. Handbook 20 May 2020 Schools in the time of Covid 19 *What Matters Most& What We Should Do Version 1.0*
4. **Internet sites**  
<https://www.journalpulmonology.org/en-challenges-for-female-health-care-workers>



## Benefits of Yoga & Meditation during pandemic

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Shri. Siddheshwar Mahavidhyalaya Majalgaon

### Abstract:

Yoga is a cerebrum and frame exercise with 5,000-yr records in out of date Indian perspective. Various sorts of yoga merge real positions, respiratory techniques, and contemplation or loosening up in covid pandemic. In later years, it has gotten famed as a type of real exercising reliant upon addresses that enhance in addition evolved manipulate of the thoughts and frame and overhaul thriving. In covid pandemic, there are more than one unmistakable varieties of yoga and numerous controls in the preparation. This article examines the blessings of yoga & meditation to save you mental strain in the course of covid set of experiences, hypothesis, and numerous portions of yoga. In the ultra-modern world, the South Asian electricity of yoga has stretched out to all aspects of the globe. While it's far currently a popular type of movement and reflection, this has now no longer for the maximum element been the circumstance.

**Keywords:** Yoga, Meditation, psychological stress, covid pandemic.

### Introduction:

#### History:

There is no put down record of the creator of yoga. Male yoga experts are known as yogis, and female yoga specialists are called yogi is. Both rehearsed and showed yoga some time before any made record out of yoga showed up. Over the going with five centuries, yogis passed the solicitation down to their students, and various schools of yoga made as the readiness expanded its general reach and recognizable quality. The "Yoga Sutra," a 2,000-year-old arrangement on yogic point of view by the Indian sage Patanjali, is a manual on the most competent technique to ace the psyche, control the opinions, and develop fundamentally. The Yoga Sutra is the most dependable established up standard of yoga and logical the most settled substance in presence and gives the development to all undeniable level yoga. Yoga is striking for its positions and positions, yet they were not an indispensable piece of unprecedented yoga customs in India. Wellbeing was not a principal target. Subject matter experts and devotees of yogic show zeroed in rather on different practices, for example, growing strong noteworthiness utilizing breathing strategies and mental center interest. The only started to get notoriety in the West near the fruition of the nineteenth century. An effect of energy for postural yoga happened during the 1920s and 1930s, first in quite a while and later in the West. To pass on its critical message and guide gatherings, yoga regularly utilizes the symbolism of a tree with roots, a trunk, branches, fledglings, and customary things. Each "branch" of yoga tends to a substitute obsession and set of attributes.

#### Types of Yoga: -

**Hatha yoga:** This is the physical and mental branch expected to take action and brain.

**Raja yoga:** This branch incorporates contemplation and extreme adherence to a movement of disciplinary advances known as the "eight members" of yoga.

**Karma yoga:** This is a method of organization that hopes to make a future freed from skepticism and whimsicalness.

**Bhakti yoga:** This plans to set up the method of responsibility, a good strategy to channel sentiments and foster affirmation and opposition.

**Jnana yoga:** This piece of yoga is about insightfulness, the method of the scientist, and developing the brain through assessment.

**Tantra yoga:** This is the pathway of custom, administration, or summit of a relationship.

Pushing toward yoga considering a particular objective can engage an individual to pick which branch to follow.

#### Chakras:

"Chakra" truly deduces turning wheel. Yoga keeps up those chakras are focus inspirations driving vitality, musings, sentiments, and the genuine body. As indicated by yogic instructors, chakras pick the way where individuals experience reality through energetic responses, requirements or hatred's, levels of

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conviction or dread, and shockingly real accidental impacts a ton. Exactly when centrality gets vexed in a chakra, it is said to trigger physical, mental, or enthusiastic erratic traits that show in accidental impacts, for example, tension, torpidity, or defenseless absorption. Asanas are the different genuine conditions in Hatha yoga. Individuals who practice yoga use asanas to free vitality and engage an imbalanced chakra. There are seven gigantic chakras, each with their own middle interest:

**Sahasrara:**

The "thousand-spel up" or "crown" chakra addresses the condition of pure care. This chakra is organized at the crown of the head, and the disguising white or violet tends to it. Sahasrara fuses matters of inward information and real obliteration.

**Ajna:**

The "course" or "third-eye chakra" is a party point between two immense blazing streams in the body. Ajna takes a gander at to the shade's violet, indigo, or dull blue, in any case standard yoga specialists portray it as white. The ajna chakra connects with the pituitary organ, which drives improvement and movement.

**Vishuddha:**

The disguising red or blue locations the "particularly pure" or "throat" chakra. Specialists consider this chakra to be the home of talk, hearing, and handling.

**Anahata:**

The "unstruck" or "heart" chakra connects with the tones green and pink. Primary concerns of conflict including anahata unite complex opinions, sympathy, delicacy, limitless love, concordance, dismissal, and flourishing.

**Manipura:**

Yellow locations the "jewel city" or "navel" chakra. Experts accomplice this chakra with the stomach related design, correspondingly as precious power, dread, uneasiness, making feelings, and inclinations towards an independent individual.

**Svadhishthana:** Practitioners guarantee that the "one's own base" or "pelvic" chakra is the home of the conceptive organs, the genitourinary framework, and the adrenal organ.

**Yoga and Meditation:**

While there two or three differences among yoga and care reflection from the Buddhist show, these two practices are plainly synergistic and clearly tradable. Care is the capacity to keep up thought on a particular clever article (e.g., breath, mantra), with feature on getting back to important (versus negative) assessments. Care can be exhausted in a progressively standard manner by sitting in a peaceful space with eyes shut for a specific extent of time, comparatively as during a yoga class with base on breath and headway while holding and changing start with one position then onto the accompanying. Yoga care reflection desires expanded care in regards to introduce second encounters, rather than confining or trying to free the brain from messed up assessments, opinions, or sensations. Right now, reflection can enable the student to figure out some method for pulling out from evaluative or principal hypothesis by cultivating a state of mind of interest and regard for propelling responses to opinions, experiences, and sentiments lastly limiting enduring with broadened lucidity of this current reality.

Reflection is a need in our mind boggling lives, yet it doesn't come effectively for by a wide margin most. Individuals need to try it, in any case they observe it is more dangerous than they whenever envisioned. How hard could it have the choice to be?! Sitting upstanding takes muscles that that we may not utilize, and that may save some work to make. Possibly we sit at a work area for the span of the day; in any case, our back is slouched over the PC. Sitting upstanding and still may feel outstandingly wrong.

Yoga positions are an exceptional methodology to set up the body for examination. Yoga isn't restoring for the body yet in addition the cerebrum. Yoga positions were genuinely proposed to successfully set up the body to think, in any case with a mind blowing piece of the yoga accessible these days, the relationship with consideration is from time to time alluded to.

In Ananda Yoga for Higher Care, we train yoga to plan for consideration. The amount of the asanas is organized in a step by step practice to help with planning the importance into the spine, to be alluringly coordinated vertical to the cerebrum to blend and lift our appreciation.

Yogananda said that getting into and out of a position is just similarly immense as being in the real position. For instance, in Ananda Yoga, when we raise our arms, we take in. Right when we slice down our arms to our sides, we breathe in out. We can move our arms generally, in a wonderful manner in collaboration with the breath, or we can lift the arms rapidly and let them simply drop, without connecting with the breath. We can tumble down on a parlor seat, or sit perfectly effectively and control.

Precisely when we start to direct our breath and start to synchronize it with our development, we become quiet. By then, at that point, we become still hanging out there reason. By dropping down, we start to achieve more and we keep our idea right now. This additionally assists with developing our body, comparatively as care, to expect reflection. Consideration and yoga are interrelated. They are both piece of the Eight Limbs of Patanjali's Yoga Sutras. They go hand a great deal. They direction to get our little self along with our higher soul self. One can't be open without the other. We should ponder the body to forget about it, to go inside in consideration.

Where the breath streams, the psyche goes. In yoga and in consideration, we can raise our care. Yoga causes us to pass on the body to a condition of quietness by cleaning up the lively vitality we pull around, and sets us up to turn out to be completely brought down in huge focus, examination. Yoga, for instance, introducing, can help with opening our hearts and permit the vitality to stream up, to the higher chakras and higher understanding. "Be really lightening in your heart. A peaceful soul will help you in a short moment to conclude issues that may by somehow require days, weeks, or even a long time of precarious inspecting."- Expert Kriyananda.

#### **Benefits of Yoga and Meditation: –**

1. Day by day practices are an extraordinary method for freeing the pressure from your day can carry a feeling of prosperity to your life. Here are the best ten advantages of yoga.
2. **Stress Relief:** - In this pandemic Yoga can assist with decreasing the impacts of mental weight on your body. One of the advantages of yoga is that it empowers unwinding and can bring down how much cortisol in your body.
3. **Pain Relief:** - In these pandemic every day activities of yoga can assist with facilitating the throbbing painfulness of the body. Many individuals with intense illnesses have announced less agony after these day-by-day works out. Like asanas or contemplation.
4. **Better Berating:** - In this pandemic, You will figure out how to take further. More slow breaths with day-by-day activities of yoga. It will assist with expanding your lung capacity and set off the body's unwinding reaction. This can be one of the most impressive advantages of yoga.
5. **Flexibility:** - In this pandemic, you will see your degree of adaptability will increment. Which will assist with your scope of movement. In some cases in the yoga day by day works out. Individuals cannot contact their toes. The advantages of yoga will incorporate extending the muscles. Ligaments and tendons in your body to assist you with turning out to be more adaptable.
6. **Increased Strength:-** In this pandemic Yoga, presents utilize every one of the muscles in your body and assist you with expanding your solidarity level from head to toe. The advantages of yoga and every day activities will assist you with fortifying your muscles near the bones. Which increment the help of your skeletal framework also?
7. **Weight Management:** - In this pandemic, you will see the advantages of yoga start to influence your scale. Every day practices are suggested all the time. However, yoga decreases the degree of cortical in your body. This guides in weight reduction and fat consuming.
8. **Improved Circulation:** -In this pandemic Yoga will help improve your body's circulation. In turn, with daily exercises, you will see the benefits of yoga with lowered blood pressure and pulse rates.
9. **Cardiovascular Conditioning:** -In this pandemic, even the gentlest style of yoga will assist with bringing down your resting pulse and increment your general perseverance. This is one of the significant advantages of yoga to assist with working on how much oxygen taken in during the day-by-day works out.

#### **Conclusion:**

In this pandemic, every people under psychological stress to prevent stress do yoga and meditation. In this pandemic, each individual under mental pressure to forestall pressure do yoga and reflection. Commoners and sports people the most significance are sports movement wire of yoga and Reflection players and people group's execution improvement with the genuine that yoga and examination importance of life. The fundamental standard of yoga and Reflection is "Loosen up the body and psyche, deter the breath, quiet down the brain". The current yoga bunch is having the altogether persuading relaxing systems like pranayama - a breathing activity to change and control the brain, the philosophical conversations about the presence's point of view about the neutrality and truth of life and the right disposition may have given them trust for the term of standard everyday presence.

#### **Reference**

1. Yogasana and Pranayama for health – Sharma P.R.
2. Yoga Research today.Net
3. Yoga for Runners –Yoga Journal

4. Raja Yoga in health and disease – B.K.I.ViswaVidhyalaya University News.
5. Rajan. V.S.M. Yoga Stretching and Relaxation for sports men. - Allied publishers Pvt. Ltd. New Delhi.
6. Bhupendra Singh – Effects of Yogasana on selected PhysicalFitnesses component among college students.
7. Safety school programs sexching social studies. – Amy Kelly.
8. Nagendra H.R. Yoga for promotion of Positive health. – Banglore S.V. Yoga Prakashan.
9. SwamiYatiswaranandaMeditation and Spiritual life.
10. Swami Vivekananda Meditation and its methods.

## Physics in Sports – A survey

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### Abstract:

Physics and sports are very closely connected. In all sports, one or more physics concepts are applied to make it more competitive, for example: work, energy, force, friction, momentum and so on. These concepts are not only used to improve the sportsperson's performance but also used for creating appropriate trainings by which reducing sportsperson's injuries, designing more aerodynamic clothing and gears. In this paper, we will survey some of the sports where above mentioned Physics concepts are used. This will give us the importance of Physics in sports and physical education.

**Keywords:** Energy, force, angular momentum, Javelin

### Introduction:

7<sup>th</sup> August 2021 is one of most memorable day in the history in Indian sports. On this day, Neeraj Chopra won the first track and field gold medal for India in 2020 Tokyo Olympics with a Javelin throw of 87.58m. And now from February 4<sup>th</sup>, more than 3000 sports persons will compete in different sports of Beijing Winter Olympics. Normally there physical, mental trainings can be very well observed but what missed from our eyes is, sportsperson's trainings on the techniques to improve his performance based on Physics concepts.

### Survey:

Let's start with Javelin throw.



One must need correct technique along with speed, strength to remain competitive in Javelin throw. Three important factors involving the Physics around Javelin throw are:

- The center of gravity is near the grip and does not change during throw.
- The center of pressure is the aerodynamic force of drag and lift on the javelin. The change in 1986 made javelins much easier to throw and much easier to measure because the center of pressure was moved back behind the center of gravity of the javelin. Lastly the angle of the throw which gives angular momentum to the Javelin and minimizes drag and maximize lift and speed. The angle for throwing in a head wind is slightly more down causing less lift than when a javelin is thrown into a tail wind.

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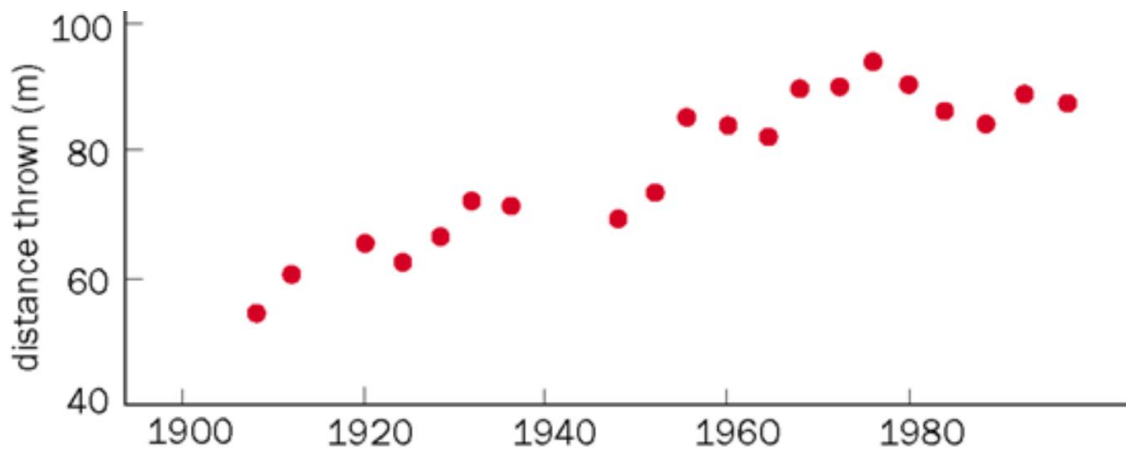


Diagram1: Winning distances in the men's javelin at Olympics games

Next game we look into is pole vaulting. Pole vaulting is a great example of the work-energy principle, which essentially means the work done on a system is equal to the change in energy for that system. In addition, the concepts of work and energy are closely related. Hence, work transfers energy from one place to another or one form to another.

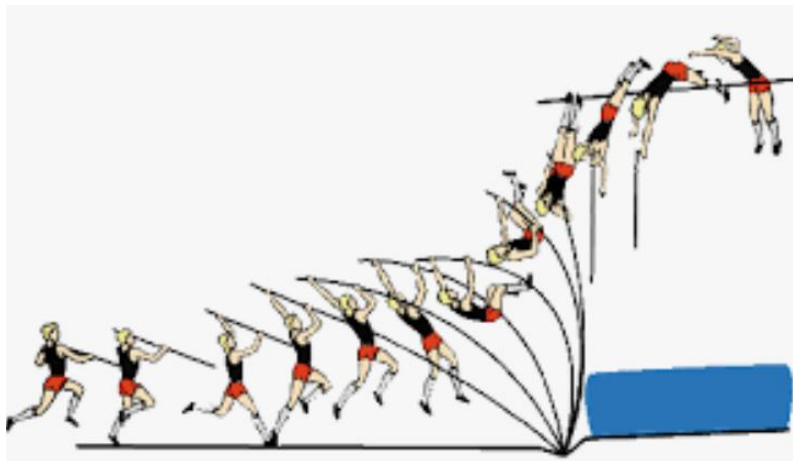


Diagram2: Pole vault positions

During the initial run the pole vaulter transforms the chemical energy into kinetic energy and faster he runs more the kinetic energy is generated. When he stops and grounds the volt on the ground part of kinetic energy is converted into elastic potential energy and this can be observed by the deformation of the pole. More the pole bends, the greater the stored elastic potential energy is. Later, this stored elastic potential energy gets released and pushes the vaulter upward. Rest of energy gets converted into gravitational potential energy, which again is converted into kinetic energy while the athletes fall away from the bar. Another common Physics concept which is very well observed in sports is friction. Friction is defined as the resistance to the motion In almost all sports, friction plays a very important role in deciding the winner. Because it is one of the breaking force and more the sportsperson learns to take of this force, more the chances of (s)he becoming the winner.



Diagram3: Friction

Another form of the friction in the sports is air resistance. This comes in picture in most of the track and field sports like running, swimming, cycling or any sports where an object/ ball is thrown or played with. resistance between the surface of an object or person and the air. In fact, in swimming, the swimmers has to overcome both air as well as water resistance. Aerodynamics, another physics concepts which tries to reduce the air resistance. Using aerodynamics, many of the sporting gear companies, manufacture their products like cycles, clothing etc to overcome the air resistance and help sports persons to improve their performance.

#### Conclusions:

In this paper, we surveyed some of the physics concepts. With the knowledge of these concepts and their correct applications, one can progress the performance in sporting arena.

#### References:

1. Concepts of Physics, H. C. Verma
2. Fundamentals of Physics, David Halliday, Robert Resnick, Jearl Walker
3. <https://www.sportsrec.com/358489-physics-involved-throwing-discus.html>
4. [http://ffden-2.phys.uaf.edu/211\\_fall2002.web.dir/daniel\\_lenord/javelin.html](http://ffden-2.phys.uaf.edu/211_fall2002.web.dir/daniel_lenord/javelin.html)
5. <https://www.topendsports.com/biomechanics/friction.htm>
6. [https://en.wikipedia.org/wiki/Neeraj\\_Chopra](https://en.wikipedia.org/wiki/Neeraj_Chopra)
7. <https://olympics.com/en/beijing-2022/>



**Indian Government Policy regarding Sports**

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In 2011, the Government of India recognized the importance of sports in developing a person's personality. Aside from being a means of entertainment, sports have also played a vital role in uplifting the community's spirit. Sports have always been acknowledged as a source of pride and prestige by the Indian government. As a result, the promotion and development of sports has been a top priority of the government. (2021, <https://yas.nic.in>) Performance of sportspersons in international events depends on many factors like availability of quality sports infrastructure including state of art equipment, world class trainers, exposure of competitions, financial supports for medical and other emergencies. Achievements of Indian sportspersons and teams in international sports events, including mega sports events, in recent past shows that there has been a perceptible improvement in performance of Indian sportspersons at international sports events. Major Achievements during last 5 Years is at Annexure-I.

National Sports Policy, 1984 was the first move towards developing an organized and systematic framework for the development and promotion of sports in the country, and the precursor of the present National Sports Policy, 2001. The National Sports Policy-2001 has, inter- alia, the twin planks of objectives namely “Broad-basing of Sports” and

“Achieving Excellence in Sports” at the National and International levels. Accordingly, all schemes of the Department have been tailored and reviewed from time to time to achieve these objectives.

Apart, ‘Sports’ is a state subject and the primary responsibility for the promotion/development of Sports rests with the respective State Governments, the Central Government is playing a pivotal role in promoting high performance in sports. Broad-basing of sports and achieving excellence is a continuous and progressive process, which may not set up any medal-winning targets. However, National Sports Federations (NSFs) are being encouraged and supported for the attainment of their respective medium- and long-term plans. Annual targets for the training athletes for high performance and their participation in the competition are approved for different NSFs by this Ministry in the annual exercise of preparing the Annual Calendar for Training and Competitions (ACTCs). (2021, <https://yas.nic.in>)

With the launch of the Khelo India Scheme, there has been increased awareness and participation of people in sports and Indian athletes have earned accolades in sports such as archery, athletics, badminton, boxing, hockey, shooting, wrestling, weightlifting, etc. in international events. This Ministry (i) has set up expert training facilities in the Sports Authority of India (SAI) centers across the country in various States; (ii) is supporting athletes for participation in international exposure and competitions through financial assistance to NSFs; and (iii) providing customized support and assistance to high-performance medal prospect athletes under the Target Olympic Podium Scheme.

Sports infrastructure and other sports facilities at five stadia of Sports Authority of India (SAI) in New Delhi and Regional Centers of SAI across the country are of international standards, up-gradation of sports facilities at SAI stadia and Regional Centers in terms of infrastructure and equipment has been carried out from time to time as per requirement, which is an ongoing process. The Government is also providing financial assistance from National Sports Development Fund for sports infrastructure, customized training under reputed coaches at Institutes having world-class facilities, participation in international competitions, purchase of equipment and Services of support persons like Physical trainers, Mental Trainer and Physiotherapist etc. to potential athletes which is also facilitating in preparation for Tokyo Olympics, 2020. The allocation of funds for the development of these sports facilities is carried out based on technical feasibility.

Through the schemes of the Department of Sports such as Assistance to National Sports Federations (NSFs), Target Olympic Podium Scheme (TOPS) the identified promising sportspersons and teams are being provided support of modern sports sciences, exposure abroad to experts in their



respective sports discipline, participation in international events/ competitions. (2021, <https://yas.nic.in>)

**The scheme-wise details of funds allocated and utilized, during the current year in the Department of Sports**

(As on 7th July, 2021)

Scheme	BE 2021-22	Total Exp. upto 7th July 2021*	Total Exp. % of BE
<b>(A) Institutions</b>			
<b>1. Sports Authority of India (SAI)</b>			
(Grant-in-Aid) GIA General	293.26	59.49	20%
GIA Capital (CA)	20.00	9.00	45%
GIA Salary	347.15	108.34	31%
<i>Total - SAI</i>	<i>660.41</i>	<i>176.83</i>	<i>27%</i>
<b>2. Laxmi Bai National Institute of Physical Education (LNPIE)</b>			
(Grant-in-Aid) GIA General	24.00	6.07	25%
GIA Capital (CA)	8.00	1.98	25%
GIA Salary	23.00	5.69	25%
<i>Total - LNPIE</i>	<i>55.00</i>	<i>13.74</i>	<i>24.98%</i>
<b>3. National Dope Test Laboratory (NDTL)</b>			
(Grant-in-Aid) GIA General	6.50	1.55	24%
GIA Capital (CA)	2.00	1.00	50%
GIA Salary	3.50	0.90	26%
<i>Total - NDTL</i>	<i>12.00</i>	<i>3.45</i>	<i>29%</i>
<b>4. National Anti-Doping Agency (NADA)</b>			
(Grant-in-Aid) GIA General	5.30	2.01	38%
GIA Capital (CA)	3.00	1.50	50%
GIA Salary	1.70	0.45	26%
<i>Total - NADA</i>	<i>10.00</i>	<i>3.96</i>	<i>40%</i>
<b>5. National Center for Sports Science and Research (NCSSR)</b>			
(Grant-in-Aid) GIA General	4.00	0.29	7%
GIA Capital (CA)	5.99	0.00	0%
Capital Work	0.01	0.00	0%
<i>Total - NCSSR</i>	<i>10.00</i>	<i>0.29</i>	<i>3%</i>
<b>6. National Center for Sports Coaching</b>			
(Grant-in-Aid) GIA General	2.00	0.00	0%
<i>Total - NCSC</i>	<i>2.00</i>	<i>0.00</i>	<i>0%</i>
<b>7. Sports University in North East</b>			
(Grant-in-Aid) GIA General	3.00	0.00	0%
GIA Salary	5.00	0.80	16%
Capital Work	43.72	0.00	0%
<i>Total - SU</i>	<i>51.72</i>	<i>0.80</i>	<i>2%</i>
<b>8. World Anti-Doping Agency</b>			
	2.50	0.21	8%
<b>(A) Total</b>	<b>803.63</b>	<b>199.28</b>	<b>25%</b>
<b>(B) Encouragement and Awards to Sportsperson</b>			
1. Special Cash Award including Rajiv Gandhi Khel Ratna Award	38.00	0.00	0%
2. Pension to Meritorious sports Persons	15.00	0.00	0%
3. Assistance to National Sports Federation (NSF)	280.00	34.93	12.48%
4. Human Resource Development (HRD)	3.80	0.01	0.26%
5. National Sports Development	25.00	0.00	0%



Fund (NSDF)			
6. Pandit Deendayal Upadhyay National Sports Welfare Fund (NSWF)	2.00	0.00	0%
<b>(B) Total</b>	<b>363.80</b>	<b>34.94</b>	<b>10%</b>
<b>(C) Khelo India: National Programme for Development of Sports</b>			
1. Khelo India	657.71	151.80	23.08%
2. Common Wealth Game (CWG) 2010- SAI Stadia Renovation	30.00	0.00	0%
3. Enhancement of Sports Facility at J&K	50.00	0.00	0%
4. Seminar, Committee etc.	1.00	0.06	6%
<b>(C) Total</b>	<b>738.71</b>	<b>151.86</b>	<b>21%</b>
<b>Grand Total (A+B+C)</b>	<b>1906.14</b>	<b>386.08</b>	<b>20.25%</b>

\* as per e-lekha

Looking at the Centre's national sports policy in this way, some further conclusions can be drawn

1. Basically, the budget for the game is much less than the total budget. In this year The Sports Authority of India's budget had been reduced by ₹ 7.41 crore to ₹ 653 crores. In view of aiding India's preparations for the Commonwealth Games and Asian Games this year, the allocation for the Union Sports budget received an increase of Rs. 305.58 crore.
2. The subject of sports comes in the state list. Therefore, there are difficulties in formulating a comprehensive sports policy.
3. To formulate a comprehensive sports policy at the national level like China.
4. To increase the budget for this.

#### References

1. <https://yas.nic.in/sites/default/files/National%20Sports%20Policy%202001.pdf>
2. Home | Ministry of Youth Affairs and Sports | GoI (yas.nic.in)



**Study of the effect of interval training & circuit training on physical fitness of sports event in athletics for girls in the Laxmibai Bhurao Patil Mahila Mahavidyalaya, solapur**

**Mr. Jadhav B.G.**

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**Introduction:**

Physical Education is the part & parcel of education similarly; there is the weight-age to Physical fitness in life. Today we have noticed many changes in physical education. Some are conductive/ good & some bad. Critically, if we observe, it is found that there is tremendous change found in the attitude of players and parents. They think of the highest achievement Within a few months of practice & expected the excellent performance in the games. To win on high level it is needed to achieve the high quality skills and take the guidance based on scientific footing with continuous practice of games should be given importance. India, among other countries, has not the desirable progress & the achievement of players is not so for good. it is necessary for the development of sports & physical education to think the source of it. What are the reasons for these circumstances? there is requirement of critical study of it thousand years ago various kinds of game were not existed as play or game but as a skill in day to day life. The important factor the best achievement of city and town player's is the physical fitness. If it is studied scientifically **there** is the certainly of the development / progress in athletics. Player's should get the scientific training. Physical fitness does not enable the achievement of players but it saves time hard work required for **the** skills of training for games. Unless there is physical fitness. It will be the building built on weak base without it the practice in athletic games will be the drawback. When the player's come to know their supernatural. Qualities they will try their best in the games and use their abilities to get the grand success.

As the lecturer of physical education, he has made the planning and arrangement of games and also worked as an umpire. He has noticed the differences/ various experiences at city / inter collegiate / district National level. He has found the lack of physical fitness among the sports persons. Similarly, it is also important to have the need of the physical fitness of the players. This need is very important for a good player.

This survey based on the above things and it about physical fitness required to enhance the progress.

**The need and importance of artical**

1. There will be a good effect of Interval Training & Circuit Training on students from secondary schools.
2. It will be useful to hold the training camp of athletics for the Principal.
3. After giving the training of circuit and Internal Training & then taking the test of it for evaluation. The conclusions will be more useful.
4. The importance will be given for the fundamental physical fitness of students in town & city areas.
5. It will be beneficial for the games and physical fitness of players and also for the development of skills.
1. To enhance the performance of players in athletics. The Circuit Training and Internal training are the most important.
1. It is necessary to find the place of players at national & international levels of matches.
2. It is the most important to be the best (personal/group) for the guide.
3. It is very necessary for every child in the society to be a strong one.
4. It will be easy to guide the students.
5. To select the team, to make it the best one, it will be very easy method.
6. To know the physical fitness, this training method will be very useful.
7. The students will know their place on national and international level.

**Objectives**

1. To study the effects of Circuit Training and interval training on physical fitness.
2. To study the effects of training on performance in athletic competitions.

3. To develop the skills achieved by muscles and spinal nerves.
4. To develop the physical efficiency (Physical fitness)
5. To develop the proper habits or doing proper. To fulfill the needs of health at the present time and in future.
6. To develop al round personality.

#### Assumptions

- Interval Training & Circuit Training increases the strength of abdomen of muscles .
- Increase in the strength of muscles in shoulders.
- Students change the direction in motion speedily.
- The training bring the correctness in the movements of students.
- The students will do a good practice to increase the fitness of themselves, similarly, they will do various exercises that will be helpful to increase the endurance.
- There will be the minimum time and the best performance easily in any game. (Personal or group wise)
- The students have the power to do some action, using that power to do every action in a perfect way and correctly and to gain the more power.
- The students will always try to increase the agility in themselves.
- The students will do stretching and yogic exercises to increase the flexibility in themselves.
- The students will do continuous practice to increase the speed themselves.

#### Definitions of Important Terms :

1. Physical Fitness:

Ability of human body to make various movements. It is the ability of a person to do the work at any time with enthusiasm and without getting tired for a long period of time)

2. Internal Training (Mid Rest Training) :

It is given on the track way to run particular distance in particular time and take rest after some time and to run again and again and run fast means interval training.

3. Circuit Training :

It includes various kinds of exercises. ( e.g. Rope skipping, spot running)

Exercises are done with the help of device or not. The devices are kept at particular distance and there is sequence of exercise to be done and repetition also be done. The exercises are done in sequence given period or they are done for maximum times depending on the potential of students, but there is not rest between two exercise.

1. Solapur District: The district has municipal place. Its implementation is done by the collector and the police commissioner appointed by the state government.
2. Secondary School : The students learning a from 5<sup>th</sup> to 10<sup>th</sup> class in any education institute Zilla Parishad, Nagar Parishad, Nagarpalika, Grampanchayat are secondary schools student's and the institutions are secondary schools.
3. Students: In educational process, students, the most important factor to bring the changes in the behavior, Students get the knowledge through learning process.
4. To run the short distance : It include the following types of running 100m, 200m, 400m, 110 hurdle.

Athletics Games :

**These are played on the track or by the side of it. It has two types.**

1. Track events 2. Field events
1. Track events are divided in to three types
  - a) Sprints : 100 mtrs to 400 mtrs.
  - b) Middle distance : 800 mtrs to 1500 mtrs.
  - c) Long distances : more than 3000 mtrs marathon run.
2. Fields events : Fields events are grouped in to three ways
  - a) Types of Jump Long : jump , High jump, Triple jump, Pole Vault.
  - b) Types of throwing : Shot put, Javelin Throw, Hammer throw discuss throws.
  - c) Relay & walking : Decathlon, Haptathalon, Marathon etc.

Sample

In this research the students of LBPM college will be selected for training.

From LBPM college 25 girls .

#### Bibliography

1. Sripad Jarde. The History of Physical Education Part : 1. Kolhapur : Chandrama Publication.

2. Sripad Jarde. **The History of Physical Education Part : 2.** Kolhapur : Chandrama Publication.
3. Sripad Jarde. **The History of Physical Education Part : 3.** Kolhapur : Chandrama Publication. 1995, 2<sup>nd</sup> Ed.
4. Mule, Umate **The Basic Principal of Education** Research Maha. Uni. Book .Production Mandal Nagpur, 3<sup>rd</sup> Education 1997.
5. Vyanktesh Wangwad/ Shankar Tiwari. **Physical Education Measurement:** Evaluation Amba Publication. Kolhapur
6. Bhintade V.R, **The method of Education Research,** Nutan Publication, Sadashiva Peth, Pune-30 1<sup>st</sup> Ed. 1989.
7. Gogate B.R. **Development and Planning of Physical Education** All India Physical Education Mandal, Pune-2
8. Sanglika, V.N. **Athletics** Amba Publication, Kolhapur.
9. Jaywant Mane, **Periodic discussing the basic questions of education and criticism,** Dec, 2008 Jan-2009



## Factors Affecting the Performance of College Girls Students in Sports of Rural Area

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### **Abstract**

The present study, examines performance of girls student coming from rural areas and different factors that affect their performance. The present examination takes into account different factors which affect the performance of girl student negatively. The factors which affect their performance negatively are poor financial status of the parent's expectation of the parents, lack of sports facility, awareness and attitude of society towards sports. Present study, I examine how deferent factor play a very important role in performance enhancement. Such factors are positive factors which compliment sportspersons performance, bringing the best out of them. However there are same factors which affect sportsperson performance negatively. Things he come more critical when such negative factors are faced by sportspersons coming from rural area and it runs worse when the sportsperson are given coming from rural area.

**Key Words:** women empowerment, sports, health, exercise, Physical Activity.

### **Introduction**

Present study, I examine how deferent factor play a very important role in performance enhancement. Such factors are positive factors which compliment sportspersons performance, bringing the best out of them. However there are same factors which affect sportsperson performance negatively. Things he come more critical when such negative factors are faced by sportspersons coming from rural area and it runs worse when the sportsperson are given coming from rural area. Various negative factors that affect sportsperson from rural rank ground are as following

- Financial status of the parents
- expectations of the parents
- Lack of sports facilities
- attitude of society towards sports

### **Financial status of the parents**

- Lower class
- Middle class
- Upper class

The financial status of the parents in rural area plays a very crucial role in affecting girl's performance in sports. Generally the rural areas, majority of parents belong to lower classes of lower middleclasses, sins the income of this family is very meager, they cannot afford providing financial support to their girls who are interested in sports. Even if a very five patents belong to middle or upper classes, thereare not interested in letting their girls pursue their carrier in sports

### **Responsibility of the girl's students towards the expectations of the parents**

Since rural areas are more conservative that urban areas, girls are supposed to perform various duties towards the parents and family's. There have to shoulder various house hold responsibility. As a result girls do not receive proper support to participate to sports. If girl's students happened to belong to farming family, they are also supposed to work on their farms. Besides, parents in rural areas are very keen and eager to marry their daughter as soon as they complete their college or even before they complete their degree.

### **Lack of sports facilities**

In rural areas, there is lack of sports facility. Since sports facility cannot be mead easily available at girls are not generally allowstaying in cities by their patents, they face various challenges as follows.

### **Grounds**

Ground is major problem in rural areas and if it happens to be rainy and hilly area, the situation becomes more critical.

**Mr. RAHUL DILIPKUMAR MAGDUM**

**Equipment & Proper Sports kit**

The sportspersons in rural area do not have an easy access to equipment like good quality sports wares, Proper kit, and gym facility. As a result, they cannot perform better in competitions

**Proper Diet**

Diet is another major problem in rural areas. Most of the sportsperson from rural area are not aware of diet and importance. Since diet is not regulated properly, it affects their performance in competitions.

**Transport facilities**

Since transport facilities in rural areas are not good, sports person do not have timely access to ground. Sometimes the sportspersons cannot reach the places in time where tournaments are hold.

**Coaching and backing team**

Coaching and back up team are the words which are not properly understood by the sportsperson in rural area, physical directors and lectures are assigned the work of coaches, but due to their other duties, they cannot justify the work of coach. As a result, the sportspersons from rural areas cannot excel in the sports.

**Medical facilities**

Girls' sportsperson in rural areas do not have easy and quick access to medical facilities in time of injuries. If they get injured during practice and competitions, they suffer a lot sometimes neglecting proper medical treatments lead it permanent injuries. And permanent injuries rule them out of the game.

Due to lack of above mentioned facilities, girl's sportspersons from rural area are cannot compete with the sportspersons who have access to all these facilities.

**Awareness and attitude of society towards sports**

In rural area sports is still a means of entertainment and not carrier. The rural society does not show a healthy and proper attitude toward sports. People in rural areas do not have an awareness that's sports can be better option for carrier. If people in rural area gate educated on carrier in sports, the talent from rural area can earn a place at national international level.

**Conclusion**

The girls students from rural area are really face various challenges and difficulties which become obstacles in their aspirations to pursue their aims and objectives in sports. Above mentioned are a few of the factors which affect the performance of girl's students coming from rural areas.

**References**

1. Attri DR. "Personality Traits and Performance of Badminton Players in Relation to Their Socio-Economic States" International Journal of Scientific Research 2 3, 2013, 338-339.
2. Ali, Gitmez S, Morcol, Goktug. Socio Economic Status and Life Satisfaction in Turkey. Sociological Abstracts, 1986-2000.
3. Author's Guide, University Grants Commission Report, New Delhi, 1987.
4. Clemens D, Eisenmann, Joey C, Pfeiffer, Karin A, Welk et al. Influence of socio-economic status on habitual physical activity and sedentary behavior in 8 – to 11 – year old children, Public Health 2010; 10:214.
5. Deshmukh KPM. A Comparative Study of Socio -Economic Status in Intercollegiate Participation of Kabaddi and Football Players, Indian Streams Research Journal 2013; 2:12:1-3.
6. Donnelly P, Harvey J. Class and Gender Interactions in Sports and Physical Activity: Sports and Gender in Canada, cited by Jay Coakley, Sport in Society: Issues and Controversies. Boston: Mc. Graw Hill Higher Education, 2001, 288, 40-64.
7. Gowtham, Kumar G. Socio Economic Differences between Team and Individual Game Players, International Journal of Health, Physical Education and Computer Science in Sports 2013; 12(1):9-10.
8. Hirsch ED, Kett, Joseph F, Trefil, James. The New Dictionary of Cultural Literacy Edn 3, Houghton: Mifflin Company, 2002, 7.
9. Khan, Anis A, Nade PU, Joshi, Mahesh. A Study of Socio-Economic Status of State Level Volley-Ball Players of Maharashtra, Shodh, Samiksha and Mulyankan 2009; 2(6):842-843.
10. Kour, Ravinder, Singh, Surjit. Socio-economic Status of Cricket and Hockey Players of Jammu & Kashmir" International Journal of Behavioral Social and Movement Sciences 2014; 3(2):120-125.



**Physical Education In Yoga And Fitness**

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**Abstract**

Yoga is additionally a game in Physical Education. These days, Yoga has become exceptionally well known all through the world. The current age can be said the time of pressure, strain and uneasiness. Along these lines, a large portion of the people have not been carrying on with a cheerful and productive life. Yoga, an Indian word that implies joining or joining the brain with body and soul, is a characteristic and solid method for staying in shape. It assists us with loosening up our body by quieting our brains and invigorates the entire being. Rehearsing it brings numerous actual advantages like expanded blood course, better rest designs, forestalls various ailments and so forth All encompassing advantages incorporate bliss, true serenity and a cheerful life. One can rehearse it in each of the three phases of life, in particular children, adolescents and grown-ups. Be that as it may, while picking a sort of yoga in light old enough, one has to know a couple of things to keep away from any issues. the job of a few yoga components in actual training and sports. Yoga is one of the Indian philosophical frameworks that underline the significance of the work with the body to foster solid practices and musings. Among every one of its strategies the actual stances, called asanas in Sanskrit, are the ones that got. It is important to recall that games and acrobatic have a place with the extent of Physical Education. When in the past individuals said "it isn't simply the triumphant yet the contending honorably that truly matters", when where contests occurred was sacrosanct and the regard between contenders was fundamental. In our cutting edge society the term Physical Education has been perceived in various ways. Some say it is the "training of the body", which is instructing the body to accomplish a few abilities and capacities as it is done, for instance, in sports. Others think it is the "schooling to the body", which is working out just to work on one's looks.

**Keywords**

Yoga, Physical Education, Sports, Exercise, Yoga Practice.

**Introduction**

Yoga is a method of a superior living. It guarantees incredible or effectiveness in work, and a superior command over brain and feelings. Through yoga one can accomplish both physical and mental amicability. Wellbeing is the best gift of all. Wellbeing isn't simply the shortfall of sickness. To empower the people to lead an existence of complete physical, mental and social prosperity and not simply the shortfall of illness or ailment. Actual Education might give the correct course and required activities to work on the strength of individuals from any local area, society, country and the world overall. An instructive framework incorporating the psychological, enthusiastic, social and actual elements of wellbeing becomes basic to achieve all around advancement in kids. The word 'yoga' signifies "to combine or Yoke". It brings the body and brain together to turn into an amicable encounter. Man is a physical, mental and otherworldly being; yoga advances a fair improvement of all the three. Yoga is a strategy for discovering that targets adjusting "Psyche, Body and Spirit". Yoga is a training with recorded beginnings in antiquated Indian way of thinking. Yoga is unmistakably not the same as different sorts of activity as it creates movement without causing strain and irregular characteristics in the body. Different types of actual activities, similar to vigorous exercise, guarantee just actual prosperity. They have barely anything to do with the advancement of the otherworldly or astral body. Yogic activities re-energize the body with infinite energy and works with. They have essentially nothing to do with the advancement of the profound or astral body. Yogic activities re-energize the body with inestimable energy and works with.

**Objectives**

1. To empower the understudies to foster a logical perspective of wellbeing concerning customary and present day idea of wellbeing.
2. To empower the understudies to recognize medical conditions and comprehend their own job on wellbeing and to clinical offices in gathering those issues.
3. To empower the understudy to check out recent developments connected with wellbeing.

4. To empower the understudies to come to reasonable end results, in view of logical information, and make a move as an individual, individual from the family and local area ensuring, keeping up with and advancing individual and local area wellbeing.
5. To empower the understudies to set an illustration of attractive/wellbeing conduct.
6. To empower the understudies to comprehend the reasons for the contamination of air, water soil and food just as their available resources of counteraction.
7. To empower the understudies to acquire adequate information on First-Aid.
8. To assist understudies with understanding the significance of actual preparation sports, games, yogic activities just as their relationship with wellbeing training program.
9. To underscore understudies on the terrible impacts of smoking and taking liquor and so forth

### **Benefits For Physical Education**

Yoga is then ordinarily taken as actual training framework with an otherworldly part, however the fact of the matter is the opposite: Yoga is a profound framework with an actual part. Asanas practice is just barely a minuscule piece of the full Physical Culture and Education program perceived as Hatha Yoga. Capacity of yoga in instruction according to different viewpoints, including the type of training gave to kids around the world, just as the particular kinds of strain that youngsters experience in the homeroom setting. This likewise called the difficulties, issues, debates, aggravations and dispersal of their assets. We started using these yoga esteems and strategies, first as an activity to work on the mental limit of the kids and, also, to urge educators to show their subjects in something else altogether. Our conviction was, and still is, that we are showing our kids without understanding or thinking often about the advancement of their own character. They are packing their cerebrums and brains with information without having any assistance network in the school air so they can start to guzzle training. They should look regarding what examination proposes about the improvement of a baby, what analysis recommends about kid brain science and what the chemicals and organs change and mean for the thinking, mental capacity and innovative creation of the kid.

### **Fitness And Yoga In Sports**

#### **i. Improved Strength**

Standard and normal act of the different yoga asanas has assisted me with creating power and raise fit bulk. Most explicitly about numerous underutilized muscle classes in my favored wearing exercises of swimming, riding and running. Such enhancements have further developed center body adaptability and significantly hindered abuse injury by further developing the muscles that are defensive yet in any case immature across the most used muscles, giving a more incorporated and usable complete strength.

#### **ii. Balance**

I have additionally been extremely spry as a swimmer. However, customarily, my exhibition is awful. However my nimbleness and stance have unfathomably fortified because of a day by day yoga practice. How treats matter? Great stance and readiness guarantees more noteworthy impact of how I shift my body, which essentially adds to further developed method and structure - the metal ring any contender spends a lifetime dominating, regardless of whether it's a swimming movement, a golf drive, a running pass and a leap shot or a wrestling shift.

#### **iii. Flexibility**

Yoga likewise expands strength of the joints and muscles, and is significant for the overall physiological adequacy of the body. In a solitary signal or arrangement of movements, expanded joint and muscle flexibility changes into a more extensive scope of movement, or an improvement in yield scope. For example, a swimmer with flexible shoulder and hip joints is equipped for getting and pulling more water than a more limited scope of movement swimmer. The impact is more prominent forward movement per stroke, just as further developed muscle action. Also, on account of the adjustment of all out power that can be applied for each progression, this superior scope of movement permits a more prominent ability to adjust a solitary muscle gathering to control. Also in spite of the fact that there is some discussion over the fitness of "over" extending (particularly for sprinters), I stay an enormous ally, understanding that the harder I attempt to save my strength (something that decays with age), the less likely I would encounter an abuse injury.

#### **iv. Free Your Mind**

A critical benefit of yoga practice is the chance to construct a pressure free brain. Standard exercise is utilized as a technique for further developing breath the board, assisting with upgrading consideration and concentrating, taking into account fast idea and powerful choice taking. A valuable weapon in each game



climate. In any game, mental practice will show you how to oversee your enthusiastic states, with the goal that energy and uneasiness don't block your exhibition.

### **Methodology**

It is for the most part accepted that the approach of showing learning is the worry of educators as it were. Students have barely anything to do with it. Be that as it may, this isn't accurate. The teaching-learning strategies are worries of students too. Knowing and understanding that how various subjects are instructed are significant for the students, all things considered, however it has more pertinence for the students of actual training. At the point when we talk about you as students of actual training, we imply that you have really taken an interest in the branch of knowledge, rather than just concentrated on it. It needs an appropriate learning climate and a positive will for support. As you currently know, actual schooling doesn't mean association of a couple of sports and games exercises, including just a chose number of understudies, and that too once in a while. The accompanying focuses are huge for the enthusiasm for this subject and the requirement for taking on proper instructing - learning philosophy:

- Actual schooling is important to guarantee support of all kids in free play, casual and formal games and sports exercises. All understudies should be engaged with wellbeing and actual training exercises. The individuals who decide to dominate in games and sports should be given satisfactory open door.
- Association of all students implies that even those understudies should be involved, who are at the danger of underestimation, for example, who are diversely abled. Such association will engage them to beat the feeling of defenselessness, mediocrity and shame. Contrasts between understudies should be seen as asset for supporting advancing rather than as an issue. Consideration in instruction is one of the parts of incorporation in the public eye

### **Conclusion**

In general , studies assessing the exhibition of yoga and exercise will quite often show that, for both solid and wiped out populaces, yoga might be as viable or better than practice in upgrading an assortment of wellbeing related result measures, including HRV, further developing emotional weariness torment measures, and resting in sound and debilitated populaces. Future clinical investigations, notwithstanding, are needed to additionally look at the distinctions among exercise and yoga, especially how the two modalities that contrast. Through their effect on accomplishment in games. Specialist sort out that yoga is as significant in sports as others accept it benefits us in an existence of sports individuals in different ways and at various stages. Yoga gives a bigger scope of understudies extraordinary learning open doors than customary games or exercise illustrations, which permits it a helpful supplement to each preparing programe. Furthermore, adding yoga to a school's educational program will assist with giving quality actual instruction program as significant as altering customary actual training yoga in sports as others might suspect it helps us in an existence of sports men in various ways and at various levels. Yoga can assume an imperative part in the advancement of brain guideline and center that helps a game player. It gives impetuses to youngsters and grown-ups to accomplish progress through actual exercise, which will assist with making a strong base in presence. Regardless, preparing specialists, teachers, mentors and understudies will obviously learn and inspect the real troubles of yoga instruction in the study hall and, in actuality.

### **References**

1. The De Michelis 2004 typology can be seen at Yoga as Linkage
2. Doctor, Vikram "Bhawanrao Shrinivasrao Pant Pratinidhi: The man who promoted Surya Namaskar". The Economic Times (India).
3. Monier-Williams, Monier "Yoga". A Sanskrit-English Dictionary.
4. Tremblay MS, Colley RC, Saunders TJ, Healy GN, Owen N "Physiological and health implications of a sedentary lifestyle".
5. de Groot GC, Fagerström L "Older adults' motivating factors and barriers to exercise to prevent falls"
6. "President's Council on Physical Fitness and Sports Definitions for Health, Fitness, and Physical Activity
7. Anderson, D. (1989). The Discipline and the Profession. Foundations of Canadian Physical Education, Recreation, and Sports Studies. Dubuque,
8. Mitchell, Stephen The Essential of Teaching Physical Education. Shape America - Society of Health and Physical Educators. pp. 1 page cited



## Contribution of Political leadership and Indian governments of sports Development

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### Abstract:

Physical education and political leadership are intertwined. The game was expanded by royal patrons, according to the royal asylum. In modern times many leaders establish their leadership through physical education. Today various committees are formed by selected elements for the development of selected skills. A political leader influences the sports sector through his political leadership and also influences politics based on performance in the field of sports. There is a correlation between the sports sector and the political sector. The nations have made full use of the sports sector in their foreign policy. The sports sector has made a significant contribution in maintaining the enthusiasm among the citizens of the nations. The sports sector is expanding more and more in India.

**Key-words:** Political leadership, Political Influence, Political power, Democracy, Budget, Foreign policy, Diplomatic policy

### Introduction:

We realize that politics and sports are complementary. Sometimes it is surprising when a player decides to get involved in politics but it is not surprising that you see many sports associations being led by politicians. Study shows that there is a correlation between sports and politics. There is competition in both fields. There are competitions sportsman can contribute to the betterment of the country just as a politician can contribute to the world of sports. According to some scholars, politics is as much a part of life as it is a part of life. We need to consider how the political power of the game to separate the two can be used for the benefit of society. Today sports have become an important factor in the socio-economic development of the country. Active participation in sports improves community health and productivity while reducing medical expenses. It helps in building a nation with character. Discipline is used to promote honesty as well as social cohesion. Some of the built-in qualities of the game help the political leadership. The political leadership has to control its emotions. Organizing for collective victory such qualities establish one's leadership through the organization which are essential for the establishment of political leadership in the field of sports.

We try to develop the body mind and soul through physical education. Physical education is instruction in the development and care of the body ranging from simple callisthenic exercises course study of providing training in hygiene gymnastics and the performance, management of athletic games. Contribution of political leaders plays important role in the development of physical education. Royal patronage developed physical sports at large scale in the ancient period before democracy. For the entertainment of people various competitions of sports were held by kings. In Maharashtra wrestling, Sur Patya was discovered. Democracy administration is directed by many representatives in governance we have seen the qualities which we need in any leader are developed by the physical education if we know the aim of teaching physical education, we can able to explain the interconnection between sports department and political leadership.

### Aims / purpose:

- \*Analyzing the contribution of political leaders in the development of physical education
- \* To check whether political leadership is developed by sports committees or not?
- \* To check that can a leader develops their own spear of influence by medium of sports?
- \* To study the provision made for sports in the Indian budget.
- \* To check whether sports promotion was given by the Government of India

### Objective:

Political leaders and Indian government give their contribution in the department of physical education

### Methodology:-

By the help of primary and secondary information analytically and analyzing method using research paper.

### Subject Entry:-

Victory in sports competitions helps in creating enthusiasm among the people of the country and also helps in instilling a sense of nationalism.

When you think of politics and the field of sports, if you look at prehistory, you can see that the Olympic Games were used extensively for political purposes. Cricket, football and other world sports were also used in this regard. In the case of apartheid, the game was used to isolate South Africa and to make major changes in the social structure of the country. The playing field was used to divide ethnicity, race, social class and more. Sport is also used extensively in politics. The Football Association has a close relationship with politics. According to Benoit, the importance of the game of football in maintaining the identity of most of the nations of the European continent and connecting them to each other in the European continent has remained unique. Benoit argues that the rise of football in post-World War II politics led to the politics of football.

- 1) The game of football influenced the foreign policy of European nations.
- 2) The game of football was used as a source of political propaganda.
- 3) The game of football was used as a means of calming various satisfied elements.

Although most clubs in Europe are not affiliated with the political arena, you will find that they tend to be politically inclined. Supporters of the English club Sunderland AFC are mainly left-leaning. They often sing 'The Red Flag' during the game. Fans of Sandal End are generally known as left-wing ideologues. Hooligan form seabancasuals are known as far-right thinking.

#### **Cricket:-**

The game of cricket has also been used extensively for politics. In 1987, the then President of Pakistan, General Zia-ul-Haq, participated in the India-Pakistan Tests held in India and used them to quell the bitterness between India and Pakistan. Cricket tours between India and Pakistan were resumed in 2004 to quell the animosity between India and Pakistan. Thousands of fans from both nations were allowed to travel across the border. Like Zia-ul-Haq, in 2005 General Pervez Musharraf used cricket matches to defuse bitterness between India and Pakistan. Often you see religious politics being created even through sports. The Indian captain was stoned in a match in Karachi. In 2000, right-wing Hindus dug a pitch in New Delhi to protest against the visit of the Pakistan team. After the death of Saeed Anwar's daughter, Saeed Anwar converted to Islam and started growing a beard. The Islamization of the Pakistan cricket team gained momentum. Since the 2003 World Cup, the Pakistan team has seen a more visible trend of religion. Many players began to focus more on the issue of paying before prayers or growing a beard, and Islamic greetings such as BismillahurRehman Rahim were used in post-match interviews.

"I want to thank everyone in Pakistan and Muslims around the world. Thank you very much and I'm sorry," Shoaib Malik said in an objection to the then Pakistan captain Shoaib Malik's apology after he lost to arch-rival India in the 2007 ICC World Twenty20. We did not win, but we gave our all. " It also shows the influence of religious politics on sports. The Prime Minister of Pakistan YousufRazaGilani and the Prime Minister of India Manmohan Singh were present at the 2011 India-Pakistan World Cup. The two countries then allowed the series to be played against each other.

The two countries then allowed the series to be played against each other.

Explaining the close relationship between sports and politics, the University of Delaware Prof. Dr. Khan He discusses how cricket has become a political sport. In the post-colonial era, India has dominated the game of cricket. In order to get rich in cricket, you have to either support India's decision or you have to play. India has not played a bilateral series with Pakistan for many years and even though the Indian Premier League has made a lot of money from matches that have banned Pakistani players, profit-driven ideas for political gain are set aside. India has repeatedly forced Pakistan to make changes in its foreign policy and security policy to resume cricket matches between the two countries. In short, India has made full use of cricket to influence political changes in Pakistan.

#### **Aim of Physical Education:**

Development working capacity:

sensory development and strength of body are depends on working capacity sensory development can be done only by physical workouts and for the movement of body from our childhood are responsible .the aim of physical education is to teach the exercise that increase the working capacity and which is helpful for sensory development

\* Personality development:

Why the development of physical mental psychological and social development of personality can happen that is aim of physical education personality development it is the department of pattern of behavior and attitudes that makes a positive distinctive

**Advantages of physical education in the contribution of political:**

- Due to physical education right manners are given to the human mind
- Physical education can develop physical mental social conditions
- due to physical education we can develop the decision making power in various sports sometimes we have to take quick decisions because of that we can develop decision making power and we can develop the ability of right decision making power
- by controlling the emotions they have a lot to gain in terms of mental health celebrations from various competition in physical education makes a man happy or sad it makes the habit of controlling emotions and the person who controls the motion has a happy life by making proper adjustments in the society
- While paying for company or country develops a sense of team loyalty social loyalty extra the person who controls the motion becomes a successful in their political fields
- Confidence, good faith, courage, honesty, kindness, promptness, justice etc. develop personal qualities through physical education
- The qualities of cooperation in the field of physical education such as fraternity respect empathy philanthropy which dun confidentiality loyalty sportsmanship are the qualities developed by physical education which help elite to be successful in a political social spear.

**Options of various leaders about importance of physical education by their own actions:**

- **Yogi 'Arvind'** can develop the qualities of sports like physical education as well as participation in sports gives similar vision our friendship and the alternative
- Mahatma Gandhi** show looks at physical education from men educational point of view vision watch to integrate various activities and activities of life with education the opinion of Gandhi is we can take the mental education through various sciences of body Gandhi woke up early in the morning and did walking.
- **Pandit Jawaharlal Nehru** also used to do regular exercise and yoga habitually
- Swami Vivekananda** was also said that to the football and kick it by your feet the higher is in the sky the more the mind will go to the sky this means that go and do football up in the sky arm muscles of leg should be strong as of that a person has to be physically thriving to success.
- NarendraModi** has been instrumental in expanding the sports sector in India. June 21 was declared as World Yoga Day by UN. NarendraModi's contribution in this has been huge. NarendraModi has taken the sport of yoga to the world stage. Apart from this, he has come up with various sports schemes to create a healthy India.

**On that background you get to see that the leadership of sports organization in political leadership are contributing in the following way:**

SPORTS	LEADER'S NAME	PARTIES:
wrestling	VirendraKashyap	BJP
Shimla MP	rajyasabha member: J.P.Nadda	BJP
rifle shooting	Anurag Thakur	BJP
Olympic association Hamirpur MP	Anurag Thakur	BJP
cricket Hamirpur MP athletics	Rural development minister : Anil Sharma formal MLA Ramlal Thakur	Congress
Kabaddi	formal MLA Ramlal Thakur	Congress
volleyball	formal MLA Vijendra Singh	
gymnastics	MLA Bhumber Thakur MLA BalbirVerma	
handball Bilaspur	MLA RajuSaijal legislator RajinderRana chief minister VikramAditya Singh	
judo chaupal	chairman, forest corporation	
taekwondo Kasauli netball sujanpur	chief minister	
softball	chief secretary Vikramaditya Singh	
powerlifting	Kewal Singh PathaniaAmit pal	
football OSD	SS Parmar (retd IAS )	
golf	SS Parmar (retd IAS) janartha(retd IAS )	

table tennis	LEADER'S NAME	
bodybuilding	VirendraKashyap	
bridge	rajyasabha member: J.P.Nadda	
badminton	Anurag Thakur	
yoga TC	Anurag Thakur	

Source: Hindustan Times October 07,2013

### India's Sports Policy –

The government has an important role to play in promoting sports in the country. Which are useful for developing sports strategies, allocating grants for infrastructure development as well as for developing the talents of the players and for the overall development of the sport. Therefore, the role of the government in the field of sports needs to be very serious. From the Sixth Five Year Plan to date, there has been a gradual increase in funding for the sport.

Five Year Plan	Period	Amount Allocated (INR Million)
6	1980-1985	270
7	1985-1989	2,070
8	1992-1997	2,100
9	1997-2002	4,730
10	2002-2007	11,450
11	2007-2012	46,360

Although you can see a huge increase in the allocation of funds, you do not see that more than one per cent of the budget has been earmarked for sports. The Panchayat Youth Sports and Sports Campaign (PYKKA) was started by the village to inculcate sports culture at the grassroots level by encouraging the youth of the district to participate in sports. The Planning Commission of India had sanctioned Rs 1,500 crore in the 11th Five Year Plan to inculcate sports culture in the rural areas.

### Conclusion:

1. on various sports committee and their important posts are held by political leaders
2. The provision made for the sports sector in the budgetary provisions is meager and needs to be increased.
3. To inculcate sports culture from school level and make sports an integral part of education system.
4. There should be uniformity in sports specific activities in different states of India so that the citizens there have equal opportunity to participate.
5. In rural areas political leaders take initiations in their regular sports activities and in urban sports also but in urban areas it is limited up to urban sports only
6. Political leaders are making influence with the help of sports committee is on large scale
7. Political leaders developed the sports committee by contributing in their marketing and advertisement also because of that there is an great expansion in sports areas. e.g. Pro-Kabaddi, IPL cricket matches
8. The government needs to intervene to make the sports system transparent and accountable.

### Reference:

- 1) Jacks L.P, "History Of Physical Education" Harper and Rao publication 1963
- 2) Nash J.B, "Physical Education and Recreation" New York
- 3) Sharma O.P. "History Of Physical Education" KhelSahityaKendra, Delhi
- 4) <https://www.hindustan-times.com/India/sports-bodies-headed-by-politicians-bureaucrats-in-spotlight/story-qUfFlxemtX1ck5dHodAPCI.html>



## Benefits of Yoga in Sports Performance

**Prof. Yamagekar Vikram Sayaji**

Director of Physical Education, VitthalraoPatil Mahavidyalaya Kale, Tal : Panhala, Dist :  
Kolhapur

### Introduction :

The word Yoga is derived from the sankrit root yaj. meaning to bind join, attach and yoke to direct and concentrate ones attention on to are and apply. Yoga as one of the Six orthodoxy system of Indian Philosophy. It was collated coordinated and systematized by patangali. Yoga has the savest remedies for man's physical as well as psychological ailments. If make's the organs of the body active. in the fanefioning and has good effect on internal functioning of the human body.

### Meaning of Yoga :

The literal meaning of word yoga as yoke. It means for anything the individual, sprit with the universal sprit or god. Yoga as wisdom work or skillful lining amongst activities harmony and moderation's

### Yoga to improved Sports Performance.

#### 1) Mental Health of Sports Man :

On the top printing inanes Yoga Handfuls the mind and sprite. both of which have prevent, invaluable in time of high stress sporting events.

#### 2) Ignore Distractions :

Whether the crowd as cheering or loosing opponents, sporting events ramparts with distraction. by being able to togas on ignore what going around yoga. hence be better able to do the job that you are trained to do when if matters most.

#### Better Sleep :

A regular Yoga Proactive offend has added benefits mostly due to the calmmg of the mind to help yaa sleep better. sleep equals rested body which tang equates to bang heifer able problem at yaar peak proper rest as needed for sports man after practice or comnefilien other wise. it will hammer his performance. Due to reduced fatigue mental stress is out come.

#### Strength and Balance :

Yoga is excellent for building come strength because it involves moving the body m various directions and angles through no staves requiring stability and balance. often an unusual relational ship to gravity. The key is tlekihiliy strength. and that what yoga developed. too money nearly shill thinks abdominal training is dongcranches, which does nothing far flexibility. If yaa trust Indian fer strength. yaarmasle can ecliaily shorten and it yaa train m only one direction yaa are limiting yaar rang a of Moline.

#### 3) Decrease the risk of Injuries:

It as offend an injury that leads people in to their very first yoga class following their physiotherapist recommending it as a form at heeling contracted. and hand training muscles often lock flashily contracted and hand training muscles often lock flashily the muscles tear that goes. hand in hand with hand taming the rascals tier that goes. hand in hand with hand training can centrally eagle its toll and came and major that pats the athlete out action fer a few weeks, A regular Yoga Practice keep's an essential part of any trading schedule yoga prevents injuries and can facsimiles a quicker reckoner come when injured.

#### 4) Develops Edibility and range of Moline in all fouls:

Yoga gives yaa range at Moline an all the fomts at the body as it a as a filly integral workout for the enter body. what ever yaar sport yaa hence got some over worked muscles m the body. It yaa are a swimmer, yaa may be sufferingfrem fight shoulders a runner definitely the hamstring are shortened yoga reactive strongmen's the muscles thef are underuse and releases the muscles that are over worked form particular sports, yoga has positions that act along the varies joints at the body including those jumps that are never really on the radar screen's left done exercised.

#### 5) Improved Focus :

**Prof. Yamagekar Vikram Sayaji**



When playing competitive sports you have to be an active side but need to be calm and stay located on the inside. Yoga can make it possible for you to stay sacked even in the most difficult situation through breathing techniques. With yoga it is possible for you to feel relaxed under all kinds of situations. This will make your mind become more skill and centered increasing your focus and better concentration which leads to overall stability at mental states and that's exactly what is needed by an athlete to win a game.

**Help Connecting the mind and body :**

As an athlete, your body is not just a place that works for athletes. It needs to be completely in touch with your body physically in order to know when to slow down, sleep, or work harder or take a break. The biggest lesson in yoga is that of being able to listen to your body closely to know its cues.

**Conclusion :**

Overall, the studies comparing the effects of yoga indicate that yoga is effective in improving a variety of health-related issues like blood pressure, diabetes control, insomnia, asthma, etc. However, future clinical trials are needed to further examine the effect of yoga. In their effects on sports performance, researchers find out that yoga is as important as other things. Yoga can help a sportsman to have exercise of mind and control of their thoughts even during stress or adversity. Yoga helps a sportsman to perform at their peak level and yoga helps a lot.

**References :**

1. Light on Yoga by Iyengar B.K.S
2. Essentials of physical education by Dr. Sing
3. Yoga & Pranayama for health by Dr. Sharma
4. <http://www.yogawarrior.co.za>



## Effect of Interval Training on Development of Speed And Strength of Tribal Students of Telangana State

**Pulla Raghuvaram**

Research Scholar, Dept.of Physical Education, Osmania University. Hyd, TS

### Abstract

#### Purpose:

The purpose of this study was to find out the effect of Interval training on Speed and Strength of Tribal students of Telangana State. The research scholar has randomly selected fifty (50) Tribal male students from Bhadrachalam, Telangana State were selected as subjects and their age ranged between 18-22 years. And the researcher took pre test data. Then gave an Interval training three days per week and each session consisted of one hour for twelve weeks. The pre test and post test data were collected pre training and immediately after the training. The speed and Strength were measured by administering by Standardized test items such as 50 meters dash and Flexed arm hang tests respectively. These data were statistically recorded and examined by appropriate tests. The level of significance as fixed at 0.05 level. The analysis of the data concluded that there was a significant improvement in speed and Strength on the Tribal students of Telangana State.

**Key words :** Interval Training, Speed and Strength.

#### Introduction :

Interval training is a type of training exercise that involves a series of high-intensity workouts interspersed with rest or relief periods. The high-intensity periods are typically at or close to [anaerobic exercise](#), while the recovery periods involve activity of lower intensity. Interval training may benefit exercisers by allowing them to burn more calories in a shorter period, and by improving aerobic capability at a faster rate, when compared with continuous-intensity exercise. Speed is a key component of physical fitness. Speed defined as the quickness of movement of limb whether this is the leg of a runner or the arm of the short putter. Strength is the capacity of muscles or a group of muscles to exert force; Strength is the key to success in modern activities. The strength may be tabulated as hand strength, leg strength, which determines the physical strength in total.

#### Objectives :

1. To find out the Effect of Interval Training on development of Speed of Tribal students of Telangana State
2. To find out the Effect of Interval Training on development of Strength of Tribal students of Telangana State.

#### Methodology :

For the purpose of this study fifty (50) Tribal male students were randomly selected as subjects from TTWR Degree College, Bhadrachalam, Telangana State. and their age ranged between 18-22 years. And the researcher will going to give an Interval training three days per week and each session consisted of one hour for twelve weeks. The pretest and post test data were collected pre training and immediately after the training. The speed and Strength were measured by administering by Standardized test items such as 50 meters dash and Flexed arm hang tests respectively. These data were statistically recorded and examined by appropriate tests. The level of significance as fixed at 0.05 level of confidence which was considered as appropriate.

**Table : 1 shows the pre test and post test values of Tribal Students related to Speed and Strength.**

Variable	Test Condition	Mean	S.D.	t-value
Speed	Pre test	9.21	0.593	5.622
	Post test	8.96	0.556	
Strength	Pre test	7.27	4.811	6.614
	Post test	13.65	8.257	

\*Significant at 0.05 level.

Analysis and Interpretation of result table 1 indicates that the pretest mean value of speed is 9.21 and post test is 8.96. The mean value shows that the Tribal students have taken more time to complete the given



task in pre training while less time is taken in post training condition. The standard deviation of speed in pre and post test is 0.593 and 0.556 respectively. Where as the 't' value is 5.622. The difference in mean score is significant at 0.05 level. It is also evident that the pretest mean value of Strength is 7.27 and post test mean value is 13.65. It indicates that the Tribal Students strength is improved better after the post training condition. The standard deviation of pre and post test is 4.811 and 8.257 respectively. Where as the 't' value is 6.614 which is significant at 0.05 level.

**Conclusion :** Based on the results of this study, It is concluded that there is a significant difference in Speed and Strength. Interval training significantly improved the performance of the Tribal students of Telangana State related to Speed and Strength..

**References :**

1. American college of Sports Medicine 1998. ACSM's Resource manual for Exercise testing and Prescription, third edition. Baltimore: Williams and Wilkins.
2. Appe,Gasti. Effect of Six week training on the physical fitness performances of U-16 age group athletes, Asian Journal of Physical Education and Computer Science in Sports 2011; 4(1): 63-64.
3. Hosler WW, Marrow JR, Jackson AS (1978), Strength, anthropometric and Speed characteristics of college women volleyball players, Res.Q.,49:385-388.
4. Verma, J.P. (2011). Statistical methods for Sports and Physical Education. Tata Mc Graw Hill Education pvt.ltd., New Delhi.
5. TOBu, A. (1987). Tests and Measurements in Physical Education and Sports, (Chennai: Rajmohan Pathipagam).



## Effect of Suryanamaskar on Trunk Joint Mobility of Teaching Faculty

**Smita Mahadev Kumbhar**

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### Abstract

The purpose of this study was to see the effect of 6-week suryanamaskar on trunk joint mobility of faculties of Savitribai Phule Mahila Mahavidyalaya, Satara. To achieve this purpose twenty (20) subjects were divided into two groups (Experimental group – 10 Teachers & Control group – 10 Teachers). The criterion variable of trunk joint mobility was measured by Goniometer. Pretest was taken prior to the Suryanamaskar training and posttest was taken after six weeks of Suryanamaskar. Suryanamaskar were practices every morning i.e. five days (Monday to Friday) per week. After six week training post-test were administered and data were collected. Statistical analyses were done on the basis of 't' test. The level of significance was set at 0.05. Result shows that on the basis of mean difference there was difference between the means of pre and post-test of control and experimental group of college teachers in reference to trunk joint mobility. To see this difference is significant or not at 0.05 level of significance.

Researcher further calculated 't' test & above table shows that there is significant difference between pre and post-test of experimental group of trunk joint mobility, as the calculated 't' value 2.115 is greater than tabulated 't' value 1.734. But there is insignificant found between pre and post-test of control group of trunk joint mobility, as the calculated 't' value 0.681 is lesser than the tabulated 't' value 1.734. Concluding we can say that experimental group shows significant difference in reference to trunk joint mobility the differences may be attributed that Suryanamaskar is basically a sun salutation that leads to healthy body, mind and soul. However, morning time is the best time for suryanamaskar. Sun rises is the time when sun rays help revitalize the body and refresh the mind. It also increases the ability of muscle to perform movement with large amplitude (range of motion). It also refers to functional capacity of a joint to move through a normal range of motion.

**Keywords:** Suryanamaskar, Trunk Joint Mobility, Goniometer, etc.

### Introduction

Life styles have been changing over the past few decades in most parts of the world. The excesses of the consumer society are now showing their effects on health. In case we are to prevent the diseases that are the results of unfavorable life styles, we have to ensure that sound decisions on healthy lifestyles are to be urgently cultivated. This will be a major role of health education. In our ancient culture, instance can be found where the continuation of healthy life styles has contributed to better health and longevity. For instance, the kurichia tribe of wayanad follows several healthy food habits, better sanitation, personal hygiene, moral life, and old age security, hard physical labour and peaceful religious life. Their women have better status and lead a disciplined moral life. They have no diabetes as they eat the right type of food and do hard physical labour. Several of their positive life styles made them free from many common diseases and thereby prolonged their life even beyond the life span of the so called educated and affluent people who have access to modern medical facilities from super specialty hospitals. On the other hand, following improper life styles, modern people invite many complicated and complex diseases necessitating the creation of costly medical facilities to serve minority of population.

Such distortion in development can be avoided in poor countries, if proper health education is spread to everybody in the society. Joint Mobility often also referred to as flexibility or suppleness can be defined as the ability to perform movement with greater range of motion or large amplitude. It is controlled partly by the energy liberation processes of the body and partly by the coordinative processes of central nervous system. Though there are different way to keep you healthy, yoga promotes overall health in a balanced way. Yoga helps in recharging the body by promoting self-healing, removing negative energies and enhancing personal powers. It simplifies your mind and thought process. One of the yoga postures which is simple form of daily workout for the mind and body is the Surya Namaskar. Thus, if you haven't stretched your body since ages and considering something effective then the surya namaskar is just right for you. In ancient times, worshipping to the sun has been practiced in India for prosperity and this has even been mentioned in the Vedas. Salutation to the Sun in the early morning was added as a daily routine for

Hindus. For that time people from all civilizations have offered prayers to the sun, the ultimate source of life and energy. Such practice is named as surya namaskar. Suryanamaskar is a complete meditative technique in itself as it includes various asanas like- Pranamasan, hasta utthanasan, padahastasan, ashwasanchalanasan, ashtanaga namasakar, bhujangasan, and parvatasan. Increasing flexibility through stretching the body parts is one of the basic tenets of physical fitness. Flexibility is the ability of muscle to perform movement with large amplitude (range of motion). It also refers to functional capacity of a joint to move through a normal range of motion.

#### Methods

The purpose of this study was to see the effect of 6 week Suryanamaskar on trunk joint mobility of faculties of Savitribai Phule Mahila Mahavidyalaya, Satara. To achieve this purpose twenty (n=20) teachers of various departments and faculties were randomly selected from the said college. Subjects were divided into two groups (Experimental group – 10 Teachers & Control group – 10 Teachers).

The criterion variable of trunk joint mobility was measured by Goniometer. The scoring unit of goniometer is in degree (max-360 degree). The reading showed by the apparatus at four sides i.e. left, right, forward and backward will be added together to get the final score. Pre-test was taken prior to the Suryanamaskar training and post-test was taken after six weeks of Suryanamaskar. Suryanamaskar were practices every morning i.e. five days (Monday to Friday) per week. First week the session consisted of 5 minutes warm-up 2 times suryanamaskar and 5 minutes cool-down, increased 2 times suryanamaskar every week. After six week training post-test were administered and data were collected.

**Statistical Procedure:** Statistical analyses were done on the basis of 't' test. The level of significance was set at 0.05

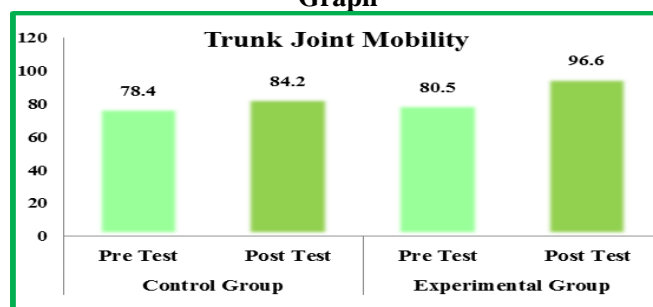
**TABLE, Comparison of Pre & Post-Test**

Variables	Group	Test	Mean	S.D	S.E	M.D	D.F	Obt 't'	Tab 't'
Trunk Joint Mobility	Controlled	Pre-test	78.4	18.24	8.513	5.8	18	0.681	1.734
		Post-test	84.2	19.8					
	Experimental	Pre-test	80.5	17.86	7.612	16.1		2.115*	
		Post-test	96.6	16.14					

\*Significant at 0.05 Level

The above table shows that on the basis of mean difference there was difference between the means of pre and post-test of control and experimental group of college teachers in reference to trunk joint mobility. To see this difference is significant or not at 0.05 level of significance. Researcher further calculated 't' test & above table shows that there is significant difference between pre and post-test of experimental group of trunk joint mobility, as the calculated 't' value 2.115 is greater than tabulated 't' value 1.734. But there is insignificant found between pre and post-test of control group of trunk joint mobility, as the calculated 't' value 0.681 is lesser than the tabulated 't' value 1.734.

#### Graph



**Conclusion**

Concluding we can say that experimental group shows significant difference in reference to trunk joint mobility the differences may be attributed that Surya namaskar is basically a sun salutation that leads to healthy body, mind and soul. However, morning time is the best time for Suryanamaskar. Sun rises is the time when sun rays help revitalize the body and refresh the mind. It also increases the ability of muscle to perform movement with large amplitude (range of motion). It also refers to functional capacity of a joint to move through a normal range of motion.

**Reference**

1. Hardy Singh, Science of Sports Training, New Delhi: D.V.S. Publication, 2011.
2. Bal, B.S and Kaur, P.J. (2019). Effect of selected asanas in hatha yoga on agility and flexibility level. Journal of sports and health research.1 (2): p.75-87.
3. Choudhary, R and Krzytof Stec. (2010). The effect of dynamic Suryanamaskar on flexibility of university students. J.A.D. Research. 1(1): p.45-48.
4. Iyengar BKS. Light on Yoga. 2nd ed. New York: Schocken Books, 1976.
5. Dr. Dhananjay Gunde- Yog ani Arogya, Sawdhya Sahitya Sadan, Kolhapur, 1988.
6. Akhilesh Tripathi And A.K. Srivastava, Physical Education (UGC NET/SLET, (New Delhi: Danika Publishing Company, 2012)

**Studies on importance of vegetables on rural sports player of Solapur district**

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**Abstract:**

Solapur district is located in the southwestern region of the Maharashtra close to the border with Karnataka. The average rainfall is very low and agricultural land is also not well for better production of crop plant. Most of the sports player coming in college and university from rural areas of Solapur district. For their daily diet they use cereals, pulses, fruits, vegetables, fish, meat and chicken. Mostly sports player took part in games are kabaddi, Running Cricket, volleyball, wrestling, Badminton, Table -Tennis etc. For better performance in all above games daily diet is very important. Among the all-food materials vegetables play very important role in better performance. In present investigation studies on role of vegetables for better performance in all types of games.

**Keywords:** Diet, Solapur, Sports, Nutrition, Vegetables

**Introduction: -**

Nutrition is important to sports player performance regardless of the age of sportsman. Adequate dietary intake is important to maintain health growth and maturation as well as to minimize injury and optimize sports performance. Many supplement products can be improved performance through improving strength and tolerance in the game. Directly supplements can also play a meaningful role in helping player consume the proper amount of calories, carbohydrates and protein in their diet. Proper nutrition ensures that are individual as amassing those fuels necessary for the energy production needs related to activity and recovery. Fat is a necessary component of healthy diet, providing energy essential elements of cell membrane and facilitation of the absorption of fat-soluble vitamins, carbohydrates intake can promote better glycogen synthesis when total carbohydrate intake is below the amount needed for maximal glycogen storage. Carbohydrates provides a key fuel for the brain and central nervous system. Exercise may increase an sports player need for brain. A protein contains all the amino acids needed by the body. Micronutrients like vitamins and minerals are very important for body function of sports player. However, this need can be easily met by eating balanced diet including variety of foods. Eating potassium rich foods such as oranges banana and potato supplies necessary potassium. Iron carries oxygen via blood to all cells in the body. The main goal of the diet is to provide nutritional support to allow the sports player to stay healthy and injury free and prepare better achieve the performance demands of their event. Among the all-food types only vegetables are the unique suppliers of all macro and micro nutrients, vitamins and minerals to the sports player of the rural area players.

**Methodology:**

In present investigation direct visit to affiliated colleges of P. A. H. Solapur University Solapur and personally taken the survey of sports player during the whole academic year. University and various sports club organize tournaments and different sports event, there were participate many rural sports players survey was done with the help of personal interview.

**Table – 1: Some common Vegetables used in daily diet by Sports player of Solapur District.**

Sr. No	Vegetables	Content in Vegetables
1.	Alfalfa sprouts	Vitamin-k, flavonoids
2.	Bell peppers	Vitamin-c, B6, foliate, vita. A
3.	Navy beans	Protein, fiber.
4.	Black beans	Magnesium, protein
5.	Mung beans	Potassium, vita. -B6, fiber
6.	Chick peas	Magnesium, B6, Iron
7.	Soybeans	Proteins, vitamins, fibers
8.	Pumpkin	Vitamin-A & k and calcium
9.	Beet greens	Vitamin, K, A, C, potassium, manganese
10	Cabbage (Green)	Protein, vitamin-k, vitamin-c, manganese,

		vitamin, B6, fiber, magnesia
11	Collard green	Vitamin-k, vitamin-A, foliate, manganese, fat, fibers
12	Spinach	Calcium, vitamins, Iron, and antioxidants, vitamin-A., C, magnesium, Iron,
13	Kale	Vitamin-A, C, & k, reduce sugar level, cholesterol, blood pressure,
14	Sweet potato	Vitamin-A, vitamin-C, B6. beta carotene
15	Beets	Potassium, antioxidant alfa-lopic acid.
16	Carrots	Vitamin-A, beta carotenes, calories.
17	Tomato	Potassium, vitamin-c, antioxidants,
18	Garlic	Vitamins, minerals, antibiotic
19	Onions	Calories, vitamin, B6, magnesia, sulphur,
20	Dakin radish	Fat, protein, vitamin-C, copper, potassium, magnesium,
21	Egg plant	Carbohydrate, manganese protein, fiber, vitamin-c
22	Okra	Magnesium, vitamin-c, magnesium, vitamin-k, fat
23	Potato	Potassium, manganese, vitamin-c, fiber, carbohydrate,
24	Purple sweet potato	Fat, protein, magnesia, vitamin-B6
25	Zucchini	Sugar, fat, protein, vitamin-c, manganese, potassium,
26	Broccoli	Vitamin-k, protect from damage, vitamin-A, vitamin-B1, vitamin, bitamin-B6
27	Peas	Fiber, protein, vitamin-A, C, & K, vitamin-B

#### Conclusion:

Totally 25 college visited and taken the survey about daily diet of sports player and visited directly on ground of university sport event. The result are summarised in table which are very significant. It is clear from the results presented in table 1. The 90 % of rural sports player of Solapur district used leafy green vegetables in their daily diet. Leafy green vegetables are important part of a healthy diet. They are with vitamins, Minerals and fibre and also gives the relievers stress, supports optimal brain function, supports bone health, reduce the inflammation in body of sports player and support to develop strong immunity.

#### References:

1. Antonio, J., Sanders, M., and Van Gammeren, D. (2001)The effects of bovine colostrums upplementationon body composition and exercise performance inactive men and women. *Nutrition* 17, 243-247.
2. Araya, H., Hills, J., Alvina, M. and Vera, G. (2000) Shortterm satiety in preschool children: A comparisonCunningham JJ. A reanalysis of the factors influencing basalmetabolic rate in normal adults. *The American journal of ClinicalNutrition*. 1980;33(11):2372–2374.
3. 3. Deakin V, eds. *Clinical Sports Nutrition*. 5th eds. Sydney, Australia:McGraw-Hill; 2015:114–139.
4. Manore M, Thompson J. Energy requirements of the athlete:assessment and evidence of energy efficiency. In: Burke L,Deakin V, eds. *Clinical Sports Nutrition*. 5th eds. Sydney, Australia:McGraw-Hill; 2015:114–139.
5. Deakin V, eds. *Clinical Sports Nutrition*. 5th eds. Sydney, Australia:McGraw-Hill; 2015:114–139.
6. Roza AM, Shizgal HM. The Harris Benedict equation reevaluated:resting energy requirements and the body cell mass. *The Americanjournal of clinical nutrition*. 1984;40(1):168–182.

7. Sinha, Nirmal; Hui, Y.H.; Evranuz, E. Özgül; Siddiq, Muhammad; Ahmed, Jasim (2010). Handbook of Vegetables and Vegetable Processing. John Wiley & Sons. pp. 192, 352. ISBN 978-0-470-95844-5.
8. Cunningham JJ. A reanalysis of the factors influencing basal metabolic rate in normal adults. The American journal of Clinical Nutrition. 1980;33(11):2372–2374.
9. Roza AM, Shizgal HM. The Harris Benedict equation reevaluated: resting energy requirements and the body cell mass. The American journal of clinical nutrition. 1984;40(1):168–182.



## Study of PHYSICAL FACTORS In Weightlifting Performance of State Level Weightlifters

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### ABSTRACT:

In sports, performance prediction is an important aspect for the selection of athletes. Being a successful athlete in any sport is a result of a multitude of factors, such as physical strength, and other factors such as motivation, determination, resilience, positive attitude, resistance to injury, ability to learn and perform skills. The sport of weight lifting is gaining greater recognition in India and other Asian countries. There are more than 3000 athletes registered in India as amateur players who compete in National, University, College, State and District level weight lifting championships. For 55 Kg weight category the weightlifting performance is significantly related to the physical fitness factors viz., chest, back and leg strength ( $r=0.66$ ,  $p<0.01$ ), leg muscles power ( $r=0.71$ ,  $p<0.01$ ), and upper body strength and endurance ( $r=0.68$ ,  $p<0.01$ ), abdominal muscles strength ( $r=0.70$ ,  $p<0.01$ ), and balance ability ( $r=0.63$ ,  $p<0.01$ ), whereas other physical fitness factors were not significant. Similar result was evident for 61Kg and 67 Kg weight category of the weightlifters.

**KEY WORDS :** Physical Strength, Motivation, Positive attitude.

### INTRODUCTION :

Sports have been a part of human culture right from the beginning in one form or another. The history of sports goes back to the beginning of history, and continues to be played in modern times by children as young as preschoolers all the way through professional sports teams and Olympic athletes. Success requires a whole range of factors to come together and interact in the right way. Fitness is just one of the factors, and for many sports plays a major role in success. Weightlifting is a game with no exception. In this game the physical structure of body plays an important role. Basic structure is very important to achieve success in every sport. Other factors such as physical, psychological, physiological are trainable so study of anthropometric measurement is very important. The ability of an athlete to perform at a peak performance is dependent upon sports specific training. A key component in developing and training is to understand the physical and psychological status of athletes. Nothing can affect performance as dramatically as a sudden loss of motivation. The pressure experienced by players especially at a professional level is recognized as influencing playing performance.

### WEIGHTLIFTING PERFORMANCE FACTORS:

Weightlifting is a dynamic strength and power sport in which snatch and clean and jerk are performed using two multi-joints. To be a successful weightlifter, not only skill is important, but also other factors such as good strength, power and coordination are equally essential. Various research studies indicated that weightlifter should improve following factors to achieve success in competitions: Strength & power

Skill & technique

Balance & coordination

Flexibility

Speed & quickness

Aerobic endurance

Body size & composition

Reaction time

Motivation & self confidence

Coping with pressure situations

Weightlifting is a strength/power sport in which two lifts are contested. The two lifts, in order of execution in a contest, are the snatch and the clean and jerk. Several performance-associated characteristics can impact the ability to perform as a weightlifter. These characteristics include strength, rate of force



development, power etc. The development of these characteristics is important for success in weightlifting. Therefore, for prediction of best performance abilities, it is appropriate to scale the weightlifters on various attributes such as physical, morphological, physiological and psychological.

#### **Objectives Of The Study**

- To identify the Anthropometric, Physical, factors that might predict the weightlifting performance.
- To measure the selected Anthropometric, Physical, factors of state level Indian weightlifters.
- To discriminate the appropriate predictors for selection, evaluation and assessment of the weightlifters.

#### **Anthropometric Measurements**

Anthropometric variables are dimensions or measurements (length, width and girth) of the human body structure taken at specific sites.

#### **Weightlifting**

Weightlifting is a competitive sport that involves lifting of a barbell overhead.

#### **Physical Fitness**

Physical fitness is defined as the capacity of an individual to perform a given physical task involving muscular efforts till undue fatigue. Physical fitness is a state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations and daily activities. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise, and sufficient rest. Weight training can help you tone your muscles, improve your appearance and fight age-related muscle loss. Your friends enjoy using the weight machines and free weights at the fitness center. And you see the results of their hard work, toned muscles and an overall improved physique.

A comprehensive fitness program tailored to an individual typically focuses on one or more specific skills, and on age- or health-related needs such as bone health. Many sources also cite mental, social and emotional health as an important part of overall fitness. This is often presented in textbooks as a triangle made up of three points, which represent physical, emotional, and mental fitness. Physical fitness can also prevent or treat many chronic health conditions brought on by unhealthy lifestyle or aging. Working out can also help some people sleep better and possibly alleviate some mood disorders in certain individuals.

Developing research has demonstrated that many of the benefits of exercise are mediated through the role of skeletal muscle as an endocrine organ. That is, contracting muscles release multiple substances known as myokines, which promote the growth of new tissue, tissue repair, and various anti-inflammatory functions, which in turn reduce the risk of developing various inflammatory diseases

#### **Methodology**

Present study was undertaken with a view to identify the accurate predictors for selection, evaluation, and assessment of performance in weightlifters of Maharashtra state.

#### **Research Design**

Present study is an analytical survey study. For this survey, data were collected from the male weightlifters participating in state level weight lifting competition.

#### **Population And Sample**

The population for this study was male weightlifters from Maharashtra State participating in state level weight lifting competition and representing light weight category. The sample (n=210), age ranged from 18-25 yrs, was the state level male weightlifters with three different weight categories i.e. 55, 61 and 67 Kg. Before selecting sample, the researcher contacted physical director/coaches of universities and colleges and obtained permission and consent to conduct the study.

Physical Fitness Variables: (Keogh, Hume, Pearson, & Mellow, 2009; Mayhew et al., 1993; Brechue, & Abe, 2002; Ye et al., 2013; Ferland et al., 2019).

- 1) Chest, Leg back strength
- 2) Vertical jump
- 3) Pull ups
- 4) Sit ups
- 5) Squat thrust
- 6) Balance
- 7) Flexibility
- 8) Grip strength right & left

#### **Criterion Measures of Physical Factors**

Speed of movement was measured by Nelson's hand and arm reaction test in seconds nearest to 0.01 sec. Maximum strength was measured by military press was recorded in numbers.

Explosive strength was measured by administering vertical jump test and the score was recorded in centimeters nearest to 0.05 cm.

Strength & endurance was assessed by using sit up test and the score was recorded in number per minute.

Agility was measured by squat thrust test for 30 seconds and the score was recorded in number.

Balance was measured by using stork balance test and the score was recorded in seconds.

Flexibility was measured by sit and reach test and the score was recorded in centimeters.

Grip strength was assessed by grip dynamometer and the score was recorded in Kg-meter.

#### Administration Of Tests

The instructions about the process of test administration were clearly determined and communicated to each subject prior to the administration of test items.

1. Assembly – All the subjects from the respective College/University were assembled for a briefing of the purpose of the testing and their code no. were marked to simplify and facilitate procedures.
2. Grouping – The subjects were divided into four groups for testing according to selected tests.

#### Statistical Analysis

Primarily, the data were processed for descriptive statistics and further following statistical procedures were considered for further data analysis:

Pearson's Product Moment Coefficient of Correlation was employed to find out the relationship between the selected predictors towards weightlifting performance of different weight categories. Further correlation matrix were calculated to discard the common predictors.

Centroid factor matrix and Tucker's phi analysis was administered followed by Humphey's rule and Coomb's criterion with a view to identify the best predictors. Centroid loading of the predictors was done for authenticity of the predictors.

Multiple step up regression analysis was employed to what extent the predictors can predict performance in weightlifting.

To prepare the grading scale, the percentile norms of each predictor were determined and then reliability and validity of the predictors were calculated.

#### Results :

##### i) Results of physical fitness factors & weight lifting performance:

For 55 Kg weight category the weightlifting performance is significantly related to the physical fitness factors viz., chest, back and leg strength ( $r=0.66$ ,  $p<0.01$ ), leg muscles power ( $r=0.71$ ,  $p<0.01$ ), and upper body strength and endurance ( $r=0.68$ ,  $p<0.01$ ), abdominal muscles strength ( $r=0.70$ ,  $p<0.01$ ), and balance ability ( $r=0.63$ ,  $p<0.01$ ), whereas other physical fitness factors were not significant. Similar result was evident for 61Kg and 67 Kg weight category of the weightlifters.

**Table 1**

**Values of correlation matrix between weightlifting performances in relation to different weight categories**

Variables correlated	Coefficient of correlation		
<b>Physical fitness</b>			
Maximum strength (Chest, leg & Back)	0.66**	0.62**	0.63**
Explosive strength (Leg muscles power)	0.71**	0.72**	0.70**
Upper body strength & endurance	0.68**	0.65**	0.65**
Strength & endurance of abdomen	0.70**	0.66**	0.69**
Agility	0.10	-0.08	-0.05
Balance	0.63**	0.63**	0.61**
Flexibility	0.08	-0.02	-0.06
Grip strength	0.29	0.18	0.12

The result of relationship, as presented in Table 1, on 4 major dimensions (i.e., anthropometric, physical fitness) of weightlifter in three weight categories (viz., 55 Kg, 61 Kg and 67 Kg) were mostly similar. The appearance of such result, in turn, suggests that there is no need to analyze the data of different weight categories of wrestlers. Therefore, now onwards the composite data on different weight categories of wrestlers have been analyzed.

Thus, on the basis of the above coefficients of correlation, the selected anthropometric, physical fitness cannot predict the performance ability of the selected weightlifters. Therefore, there is a need for factor analysis to discriminate the best predictive factors for the weightlifters.

#### Results on Factor Analysis

For factor analysis, as a first step, it is necessary to calculate the residual correlation matrix of the test items. The results of the analysis are summarized the report.

The First residual correlation matrix of the test items revealed that some of the factors were retained because there exists higher matrix values, whereas the values of negative coefficient of relation was evident in case of the anthropometric, physical fitness, physiological and psychological dimensions. Such results indicate that there are many common attributes that might dramatically influence the weightlifting performance. To discard these common attributes, it was decided for second residual correlation matrix.

The result of second residual correlation matrix revealed that residual values of many factors of the anthropometric, physical fitness, physiological and psychological dimensions seem to be thinner as compared to the matrix values (vide Tables as presented in Chapter-IV of the main thesis). It was, therefore, decided to continue for third residual correlation matrix.

The result of third residual correlation matrix also revealed that the factors of all the 4 dimensions seem to be thinnest as compared to the earlier matrix values. This suggests that further analysis of residual correlation matrix was stopped.

Humphrey's Rule (Hum.Rule) values and Coombs' Criterion (C.Critn) values revealed that -

For anthropometric dimension, the 3 factors viz., thigh girth (T.Phi=0.53, Hum.Rule=0.15 & C.Critn=21), shoulder width (T.Phi=0.46, Hum.Rule=0.19 & C.Critn=4), and hip breadth (T.Phi=0.52, Hum.Rule=0.12 & C.Critn=24) were retained finally, which may have high predictive values.

In case of physical fitness dimension, the 5 factors viz., Chest, Back & Leg strength (T.Phi=0.35, Hum.Rule=0.23 & C.Critn=16), leg muscles power (T.Phi=0.68, Hum.Rule=0.13 & C.Critn=10), upper body strength and endurance (T.Phi=0.28, Hum.Rule=0.18 & C.Critn=15), abdominal muscles strength (T.Phi=0.42, Hum.Rule=0.20 & C.Critn=21), and balance (T.Phi=0.39, Hum.Rule=0.26 & C.Critn=17) were retained finally, which may have high predictive values.

#### **Results On Multiple Step Up Regression Analysis**

1) Results on prediction of Weightlifters abilities based on the scores of Anthropometric dimension

The residual value of average level of Thigh girth was 0.0012, where the adjusted R<sup>2</sup> value was 0.578 which was significant statistically even at 0.01 level. This result indicates that average level of Thigh girth can predict weightlifting performance.

The residual value of higher Shoulder width was 0.0019, where the adjusted R<sup>2</sup> value was 0.593 which was significant statistically even at 0.01 level. This result indicates that higher Shoulder width can predict weightlifting performance.

The residual value of low Hip breadth was 0.0013, where the adjusted R<sup>2</sup> value was 0.631 which was significant statistically even at 0.01 level. This result indicates that low hip breadth can predict weightlifting performance.

2) Results on prediction of Weightlifters abilities based on the scores of Physical fitness dimension

The residual value of higher level of Chest, back and leg strength was 0.0009, where the adjusted R<sup>2</sup> value was 0.655 which was significant statistically even at 0.01 level. This result indicates that higher level of Chest, back and leg strength can predict weightlifting performance.

The residual value of higher level of Leg muscles power was 0.0013, where the adjusted R<sup>2</sup> value was 0.606 which was significant statistically even at 0.01 level. This result indicates that higher level of Leg muscles power can predict weightlifting performance.

The residual value of higher level of Upper body strength and endurance was 0.0016, where the adjusted R<sup>2</sup> value was 0.583 which was significant statistically even at 0.01 level. This result indicates that higher level of Upper body strength and endurance can predict weightlifting performance.

The residual value of higher level of Abdominal muscles strength was 0.0008, where the adjusted R<sup>2</sup> value was 0.675 which was significant statistically even at 0.01 level. This result indicates that higher level abdominal muscles strength can predict weightlifting performance.

The residual value of higher level of Balancing ability was 0.00011, where the adjusted R<sup>2</sup> value was 0.642 which was significant statistically even at 0.01 level. This result indicates that higher level Balancing ability can predict weightlifting performance.

The residual value of higher level of Grip strength ability was 0.0007, where the adjusted R<sup>2</sup> value was 0.759 which was significant statistically even at 0.01 level. This result indicates that higher level Grip strength ability can predict weightlifting performance.

#### **Conclusion**

The result, as summarized and presented above, could warrant the following conclusion: Factor analysis could finally identify the best possible factors among the large number of factors.

Predicting factors of anthropometric dimension are Thigh girth, shoulder width and hip breadth.

Predicting factors of physical fitness dimension are Chest, Back and Leg strength, Leg muscles power, Upper body strength and endurance, Abdominal muscles strength, Balancing ability and Grip strength.

The regression analysis finally infers that in assessing one's status of anthropometric, physical fitness factors, it is possible to predict the performance of the weightlifters.

#### References

1. Aagaard, P., Simonsen, E. B., Andersen, J. L., et al. (2002). Increased rate of force development and neural drive of human skeletal muscle following resistance training. *J Appl Physiol*, 93(4), 1318-26.
2. Adler, Y., Fisman, E. Z., Koren-Morag, N., et al. (2008). Left ventricular diastolic function in trained male weightlifters at rest and during isometric exercise. *Am J Cardiol*, 102(1), 97-101.
3. Ammar A, Chtourou H, Hammouda O, Turki M, Ayedi F, Kallel C, AbdelKarim O, Hoekelmann A, Souissi N. (2016). Relationship between biomarkers of muscle damage and redox status in response to a weightlifting training session: effect of time-of-day. *Acta Physiologica Hungarica.*, 103(2), 243-61.
4. Bale, P., & Williams, H. (1987). An anthropometric prototype of female power lifters. *Journal of Sports Medicine*, 27, 191–196.
5. Beckham, G., Mizuguchi, S., Carter, C., Sato, K., Ramsey, M., Lamont, H., Hornsby, G., Haff, G., Stone, M. (2013). Relationships of isometric mid-thigh pull variables to weightlifting performance. *J. Sports Med. Phys. Fit.*, 53, 573–581.
6. Bompa, T. O. (1999). *Periodization. Theory and methodology of training* (4th ed.). Champaign, IL: Human Kinetics
7. Brown, J. (2001). *Sports Talent: How to Identify and Develop Out-standing Athletes*. Champaign, IL: Human Kinetics.
8. Enoka, RM. (1988). Load- and skill-related changes in segmental contributions to a weightlifting movement. *Med Sci Sports Exerc* 20, 178–187.
9. Fry, A. C., Schilling, B. K., Staron, R. S., et al. (2003). Muscle fiber characteristics and performance correlates of male Olympic style weightlifters. *J Strength Cond Res*, 17(4), 746-54.



## The Geographical Study of Sports Facilities and Management in Solapur District of Maharashtra State

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### Abstract

Sports plays a great role in everyone youth life that it keeps themselves healthy fit, wealthy and active. Playing sports help in strengthening the immune system, maintaining physical coordination, enhancing body strength and improving mental power. Playing sports on regular basis helps in character and health building of any person. It is generally seen that a person involved in sports activity from a very young age, develops very clear and strong character as well as good health. Not only for children but many surveys and studies have cleared the fact that senior citizens who have played various kind of sports in their childhood have less cardiovascular problems as compared to the group of others. Therefore, it requires sports facilities and good management system at residential places and at school and college level. Physical Education is a compulsory subject at School, Pre-Degree and Degree level college for awareness about physical fitness. It requires daily gym for keeping body healthy. Physical Education requires facilities in the form of play grounds and swimming pools, up to the class rooms class furniture, laboratories, libraries and even halls are accepted as essential facilities for physical education. (India, 1964) Sports Facilities consigns to infrastructure facilities like playground, equipment, technical staff, and funds required for the smooth organization of the activities related to the sports in Colleges, University and Sports Associations (Sanji, 2013). Sport playing in child and youth life at school and college level gives opportunity themselves participate in sports competition at Regional level, District level, National level, International level. With comparing to European, American and East Asian countries, India lag behind in the development of Sports facilities at regional school and college level and that's why India's contribution of gaining Medals and Champions in International Sports games. The purpose of this study was to know the status of sports facilities available in Solapur district of Maharashtra state within 2004-2005 to 2015-2016. In 2004-05, there was 04 Physical Educational college, about 29 playgrounds and about 14 gymnasiums, 02 stadiums while in 2015-16 there was 02 Physical Educational college, about 509 playgrounds and about 82 gymnasiums, 10 stadiums in Solapur district.

**Keywords** :- Sports Facilities, Indian Institutions, Maintenance, Management.

### Introduction

Sports plays a great role in everyone youth life that it keeps themselves healthy fit, wealthy and active. Playing sports help in strengthening the immune system, maintaining physical coordination, enhancing body strength and improving mental power. Playing sports on regular basis helps in character and health building of any person. It is generally seen that a person involved in sports activity from a very young age, develops very clear and strong character as well as good health. Not only for children but many surveys and studies have cleared the fact that senior citizens who have played various kind of sports in their childhood have less cardiovascular problems as compared to the group of others. Therefore, it requires sports facilities and good management system at residential places and at school and college level. Physical Education is a compulsory subject at School, Pre-Degree and Degree level college for awareness about physical fitness. It requires daily gym for keeping body healthy. Physical Education requires facilities in the form of play grounds and swimming pools, up to the class rooms class furniture, laboratories, libraries and even halls are accepted as essential facilities for physical education. (India, 1964) Sports Facilities consigns to infrastructure facilities like playground, equipment, technical staff, and funds required for the smooth organization of the activities related to the sports in Colleges, University and

Sports Associations (Sanji, 2013). Sport playing in child and youth life at school and college level gives opportunity themselves participate in sports competition at Regional level, District level, National level, International level. With comparing to European, American and East Asian countries, India lag behind in the development of Sports facilities at regional school and college level and that's why India's contribution of gaining Medals and Champions in International Sports games. The purpose of this study was to know the status of sports facilities available in Solapur district of Maharashtra state within 2004-2005 to 2015-2016. In 2004-05, there was 04 Physical Educational college, about 29 playgrounds and about 14 gymnasiums, 02 stadiums while in 2015-16 there was 02 Physical Educational college, about 509 playgrounds and about 82 gymnasiums, 10 stadiums in Solapur district.

### Objectives

The main objectives of this study is to analyze the sports facilities and management in Solapur district.

- 1) To study tahsilwise sports facilities and management in Solapur district
- 2) To study tahsilwise changes in sports facilities and management in Solapur district.

### Database And Methodology

This study is based on secondary data. District and tahsil-wise data is obtained from District Socio-Economic Abstract of 2004-05 and 2015-16. Data is processed and presented through tables, maps and graphs. In this study, change in sports facilities is calculated by following formula.

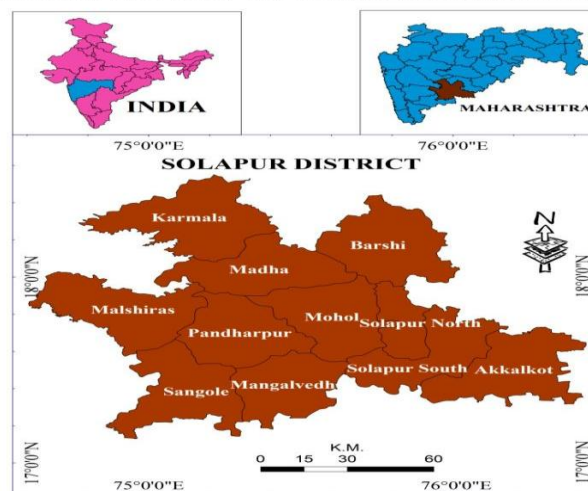
#### Statistical Method Used

$$R = \frac{X-Y}{Y} \times 100$$

Whereas, R = Growth Rate ; X= Population of the next year, Y= Population of the base year; R = Percentage value.

**Study Area :** The Solapur district is one of the most important district of Maharashtra state both in terms of population and area. It lies entirely in the Bhima basin and located in between 17°10' North to 18°32' North latitudes and 74°42' North to 76°15' East longitude. The total geographical area of Solapur district is 14895 square kilometer according to 2011 census. The region under studies constitute 4.88 percent area and 4.51 % population of Maharashtra state. It ranks fourth in terms of area and seventh in term of population among the district of Maharashtra. In 2004-05, there was 04 Physical Educational college, about 29 playgrounds and about 14 gymnasiums, 02 stadiums while in 2015-16 there was 02 Physical Educational college, about 509 playgrounds and about 82 gymnasiums, 10 stadiums in Solapur district.

**LOCATION MAP OF SOLAPUR DISTRICT**





Tahsil Block / District	Sports Facilities in Solapur District. (2004-05 to 2016-17)																	
	Physical Education Colleges		Changes	Sports Complex		Changes	Playgrounds		Changes	Gymnasiums		Changes	Playground Stadiums		Changes	Swimming Tank		Changes
	2004-05	2016-17		2004-05	2016-17		2004-05	2016-17		2004-05	2016-17		2004-05	2016-17		2004-05	2016-17	
Karmala	0	0	0	NA	01	01	01	40	39	02	06	04	02	01	-1	0	0	0
Madha	0	0	0	NA	01	01	02	55	53	01	07	06	01	01	0	0	0	0
Barshi	02	01	-1	NA	01	01	05	65	60	02	30	28	02	01	-1	0	01	1
Solapur (N)	01	01	0	NA	01	01	02	35	33	03	03	0	03	01	-2	03	04	1
Mohol	01	0	-1	NA	0	0	02	32	30	01	02	01	01	0	-1	0	01	1
Pandharpur	0	0	0	NA	01	01	03	68	65	01	01	0	01	01	0	0	02	1
Malshiras	0	0	0	NA	01	01	05	65	60	01	03	02	01	01	0	01	01	0
Sangola	0	0	0	NA	01	01	02	53	51	01	25	24	01	01	0	0	0	0
Mangalweda	0	0	0	NA	01	01	02	35	33	0	02	01	0	01	1	0	0	0
Solapur (S)	0	0	0	NA	01	01	03	38	36	0	02	01	0	01	1	0	0	0
Akkalkot	0	0	0	NA	01	01	02	23	21	01	01	0	01	01	0	0	0	0
District	04	02	-2	NA	10	10	29	509	480	14	82	68	14	10	-4	04	09	05

Table No 1: Sports Facilities in Solapur District. (2004-05 to 2016-17)

Source :- District Socio-Economic Abstract and compiled by Author

Tahsil Block / District Block	Sportsperson Achievement at District Level in Solapur District. (2004-05 to 2016-17)																	
	No. of Selected Sportsperson at District/ State level						Sports Scholarship Benefitted Students						Special Awards Sportsman (District Level)			Number of Sports Training Workshops		
	Total Sportsperson		Changes	Total Girls		Changes	Total Sportsperson		Changes	Total Girls		Changes	Special Awards		Changes	Number of Sports Training Workshops		
	2004-05	2016-17		2004-05	2016-17		2004-05	2016-17		2004-05	2016-17		2004-05	2016-17		2004-05	2016-17	
Karmala	05	165	160	02	81	79	NA	04	04	NA	02	02	NA	0	0	0	0	0
Madha	06	235	229	02	102	100	NA	04	04	NA	02	02	NA	0	0	0	0	0
Barshi	72	530	458	52	229	177	NA	08	08	NA	06	06	NA	01	01	0	0	0
Solapur (N)	111	297	186	36	102	66	NA	01	01	NA	0	0	NA	03	03	03	02	-1
Mohol	05	157	152	02	61	59	NA	27	27	NA	14	14	NA	01	01	0	0	0
Pandharpur	22	545	523	07	260	253	NA	08	08	NA	06	06	NA	0	0	02	0	-2
Malshiras	36	225	189	14	95	81	NA	06	06	NA	0	0	NA	02	02	0	0	0
Sangola	46	204	158	28	114	86	NA	01	01	NA	01	01	NA	0	0	0	0	0
Mangalweda	25	385	360	13	80	67	NA	06	06	NA	05	05	NA	0	0	0	0	0
Solapur (S)	36	185	149	12	83	71	NA	03	03	NA	0	0	NA	0	0	0	0	0
Akkalkot	23	90	67	11	34	23	NA	03	03	NA	01	01	NA	0	0	0	0	0
District	387	3018	2631	179	1241	1062	NA	71	71	NA	37	37	NA	07	07	05	02	-3

Source :- District Socio-Economic Abstract and compiled by Author

In Solapur district about 09 Badminton courts are present in Solapur City in which Hall-4 Wooden Court and Hall-1 Wooden court run by state Government, Hall-1 run by Private college while Hall-3 court run by Central Railway Government. Similarly about 06 Basketball court are present in Solapur city in which 1 indoor Hall Wooden Court and Basketball 1 Cement Court run by Solapur Municipal Corporation, Basketball 3 Tar Court run by private Schools and Basketball 1 Cement Court run by Central Railway. As well as 05 Cricket grounds are present in Solapur City in which 1 cricket ground run by Solapur Municipal Corporation, Central railway and District Sports Office and remaining 02 cricket grounds are run by private colleges. Similarly 03 football grounds are in Solapur city in which 1 football ground run by District Sports Office and 02 football grounds are by private colleges. As well as 02 Hockey grounds are in Solapur city in which 1 hockey grounds run by private college and 01 by private college. Similarly 02 Judo and 02 Karate are present in Solapur city which are run by Private schools. As well as 11 Lawn tennis grounds are present in Solapur city in which 4 Synthetic Court are run by Association, 3 Clay Court run by state Government, 2 Clay Court run by Private club and 2 Clay Court run by private college. Similarly 01 skating ground is present in Solapur City which is run by State Government. As well as 02 swimming pools are present in Solapur city which is run by Corporation. Similarly 02 table tennis

grounds are present in Solapur city in which 1 run by state Government and 1 by Corporation. Similarly 04 volleyball grounds are present in which run by state Government, Corporation, Central Railway and private college.

Table No. 1 shows the Sports facilities present in Solapur district in 2004-05 & 2016-17.

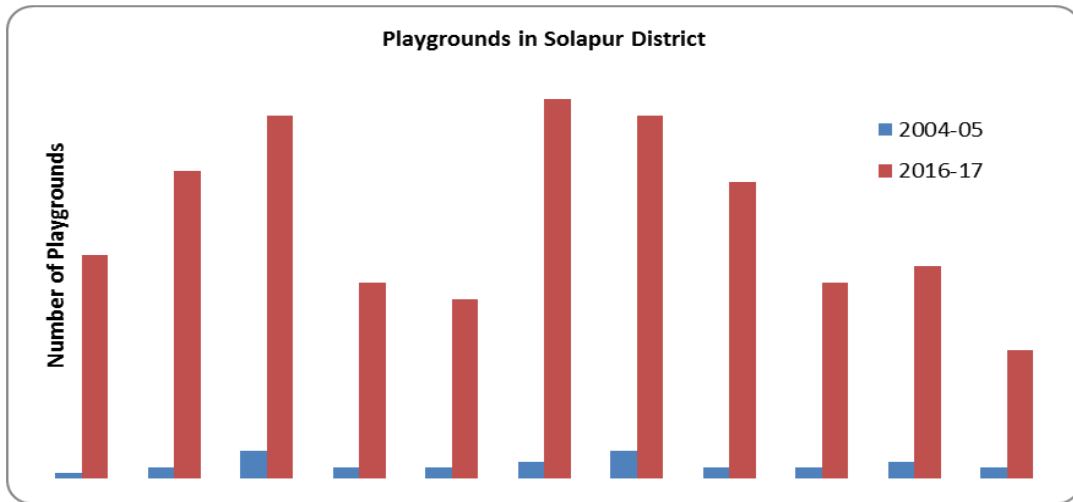


Diagram No 1

There were 04 Physical Education colleges in district at Barshi (02 colleges) and Solapur City and Mohol tahsil. In 2016-17, only 02 Physical education colleges are present in Barshi town and Solapur city. As per data 2016-17, there were 10 Sports Complex in all tahsils except only Mohol tahsil. In 2004-05, about 29 playgrounds were present in the district in which Malshiras and Barshi tahsil were 05 playgrounds while in 2016-17, total number of playgrounds has been increased 509 in which Barshi, Pandharpur and Malshiras tahsil shows > 65 playgrounds in the tahsil. In 2004-05, there were 14 playground stadiums while in 2016-17 it became 10 playgrounds. In year 2004-05, only 04 swimming tanks were present in the district while in the year 2016-17, it became 09 swimming tanks in the district

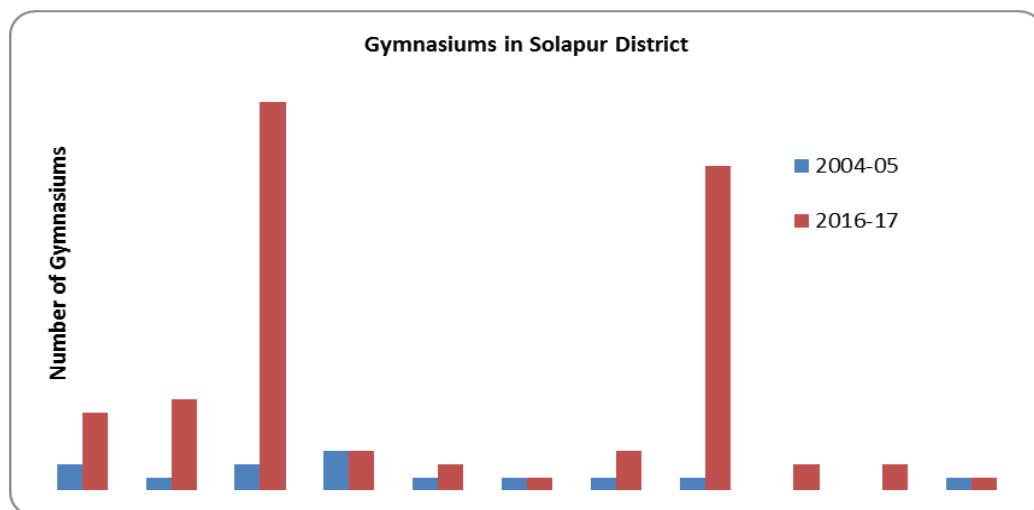


Diagram No 2

Table No 2 shows Sportsperson Achievement in the district. In the year of 2004-05, total number of selected sportsperson were about 387 from Solapur district in which about 179 were girl sportsperson. In the year 2016-17, total selected sportsperson were 3018 from district in which about 1062 girl



sportsperson. This shows the participation of girls in sports activity has been changes from 46.25% to 41.11%. In the year 2016-17, total Sports Scholarship benefitted students were 71 in the district in which about 37 girl sportsperson got sports scholarship . Similarly in 2016-17, total 07 District Special Sports Awards got to Solapur district

**Conclusion :-**

1. There is a little scope for sportsperson at a village level because all sports facilities are concentrated at city level.
2. Very few Sports complex found in Solapur district.
3. Central Railway Government has been provided best sports facilities and grounds for various sports to especially railway employee as per their regulation.
4. Solapur Muncipal Corporation has also providing good sports facility and grounds to all peoples.

**References :-**

1. Chandana (1992) A Geography of Population , Kalyani publisher, New Delhi. ;
2. District Socio-Economic Abstract 2004-05 ;
3. District Socio-Economic Abstract 2016-17
4. District Census Handbook, Solapur, 2011 ;



## Physiological Benefits of Yoga in sports

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### Abstract:

Yoga is psyche and body discipline created in India indeed, yoga is going to well- known through the world for the general improvement of human culture. Numerous competitors are taking to yoga to further develop their on-field execution. Yoga has turned into a demonstrated match-champ in working on athletic execution. Anything sport you might be rehearsing, you can be guaranteed that yoga will assist you with turning out to be better at it. Yoga for sports. The main advantage of yoga is physical and mental treatment. The maturing system, which is generally a counterfeit condition, caused principally via auto-intoxication or self-harming, can be dialled back by rehearsing yoga. By keeping the body spotless, adaptable and all around greased up, we can essentially lessen the catabolic course of cell disintegration. To get the greatest advantages of yoga one needs to join the acts of yogasanas, pranayama and reflection.

**Key words:** Benefits of Yoga, Yoga for Sports performance

### Introduction:

Yoga is psyche and body discipline created in India nearly 2000 years prior. Right around twenty years prior, the wellness business rediscovered this old type of active work and another classification called mind-body practice was made. In a later article, Larkey, Etnier, proposed the expression "reflective development" to arrange practice exercises, which centre around actual developments, cognizant breathing, a quiet perspective, and profound conditions of unwinding. As opposed to prevalent thinking, yoga isn't just for expanded adaptability and relaxation, but likewise increments solid perseverance, diminishes apparent pressure, and further develops by and large wellbeing discernment. Eventually, the objective of yoga is mental. As characterized in the Yoga Sutras of Patanjali, one of the legitimate texts in yoga, yoga is the control of the psychological variances and energies. In Ashtanga, the reason for working the body out is to consume the six toxic substances of the heart - want, outrage, hallucination, eagerness, jealousy, and sloth. The objective is to carry on with a serene life liberated from contempt and negativities.

### Yoga as actual work mediation

In India, the act of yoga can be as inactive as sitting for a long time in profound contemplation or as dynamic as the hopping advances in Ashtanga. At the point when we talk about yoga as active work, we are really zeroing in on the act of hatha yoga. The act of hatha yoga comprises of a few pragmatic methods planned to make the body perfect, sound, and solid. These modalities incorporates purifying procedures, actual activities, breath work, consideration concentration, and mentality preparing. All of which, I accept, are essential to physical and mental wellbeing and prosperity.

A new audit article contrasting the medical advantages of yoga versus regular exercise recommends that yoga gives off an impression of being all around as powerful as or even predominant than practice in diminishing apparent weakness and stress as well as further developing wellbeing related results like blood glucose, blood lipids, and salivary cortisol. This survey suggests that yoga, mostly, can be a compelling option actual work mediation program, which not just addresses the wellbeing/wellness group of three of vigorous exercise, strong wellness, and adaptability, yet additionally gives various mental advantages like diminished pressure and nervousness.

Yoga for mental abilities training Yoga likewise shows positive reasoning. For the most part, demeanour preparing in yoga includes the act of moral guidelines and observances called yamas and niyamas, however about don brain science, mentality preparing in yoga implies thinking emphatically or applying positive self-talk.

Yoga as an actual work has numerous physical as well as mental advantages. It offers a comprehensive way to deal with an actual work mediation and an elective system to upgrade mental abilities in sports. Yoga has a wide scope of methods intended to further develop wellbeing and wellness; to show inward mindfulness, breathing and unwinding; and to develop a positive mental state. As game brain research is yet in its outset in certain areas of the planet, offering yoga as a broadly educating

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program is a decent prologue to a far-reaching mental abilities preparing program and may help with giving a method for acquiring section into an athletic group. Conventional mental abilities methods like focusing, symbolism, and unwinding, can be joined into a customary yoga meeting, which makes it an incredible starting mental preparation bundle. Yoga is presently a standard discipline that even proficient NBA groups join it in their preparation programs.

Yoga for Sports: Numerous competitors are taking to yoga to further develop their on-field execution. Yoga has turned into a demonstrated match-victor in working on athletic execution. Anything sport you might be rehearsing, you can be guaranteed that yoga will assist you with turning out to be better at it. Peruse on to get familiar with the viability of yoga for sports.

#### **Advantages of Yoga for Sports**

1. Yoga presents further develop body equilibrium and increment the adaptability of the joints and spine.
2. Yoga can forestall wounds by fortifying the muscles and expanding adaptability.
3. Yoga can work on your perseverance, strength, footwork and fixation.
4. Pranayama and yoga contemplation can work on your fixation and keep you cantered.
5. Yoga calms physical and mental pressure, empowering you to perform at your pinnacle.
6. Yoga is an extraordinary for broadly educating, which is fundamental for sports people who play out a similar exercise schedule consistently.
7. Benefits of practicing Yoga for Sports

#### **Adaptability:**

Yoga gives the best adaptability to the body when contrasted with some other exercise. Every one of the stances of yoga have a fundamental method that can make your muscles adaptable.

**Balance:** A few indoor games and every one of the outside games need quick reaction and great adjusting power during the game. Absence of equilibrium causes inconvenience, prompting disappointment. All the yoga presents need balance, rehearsing the postures appropriately will foster solid equilibrium of the body.

**Strength:** Yoga builds the general strength of your body. During the act of yoga, you will utilize a gathering of muscles all at once to make a stance; thusly you stretch and fortify various muscles. Redundancy of the postures will expand the strength of all aspects of your body.

#### **Mental Concentration:**

Numerous competitors grumble about losing focus eventually during the game, this can be decreased by rehearsing yoga consistently. While doing the yoga stances you need to control your breath and wind various bones and muscles, this makes you focus on the current second.

#### **Stress:**

Yoga for sports is the most effective way to free pressure from any request. Many postures revive the psychological and actual nerves that cause pressure.

Hero Posture for Soccer, Running and Racquet Sports Yoga can help athletes to recover from intense workouts and prepare them for future training sessions. The warrior series of poses can strengthen the legs and open up the hips and body sides. This can benefit athletes in soccer, running and racquet sports. Yoga poses can also increase range of motion and mobility of such joints as ankles, knees and hips.

#### **Strength Preparing:-**

Cycling charges the hip flexors and quadriceps, thus back-twisting postures can assist cyclists as they with opening up the body front. Descending canine posture and Cobra act are additionally valuable like they fortify the shoulders and arms, and further develop body act. Back twist presents like bow and wheel present increment spine gracefulness. They additionally work on joint adaptability and prolong the muscles.

#### **Yoga Breathing Procedures:-**

Yoga and pranayama breathing procedures can help swimmers and competitors participating in high-intensity games. These procedures flood the body with oxygen and help mental concentration and fixation. Lung limit is expanded and the competitor turns out to be more empowered. Simultaneously, both body and brain become loose. Yoga reflection increments mindfulness and the competitor turns out to be more mindful of his physical and mental cut off points, which can forestall over-preparing and stress aggregation.

**Physical And Mental Treatment:** - The main advantage of yoga is physical and mental treatment. The maturing system, which is largely a fake condition, caused primarily via auto-intoxication or self-harming, can be dialled back by rehearsing yoga. By keeping the body perfect, adaptable and all around greased up, we can fundamentally lessen the catabolic course of cell crumbling. To get the greatest advantages of yoga one needs to consolidate the acts of yogasanas, pranayama and contemplation.

Standard act of asanas, pranayama and contemplation can help such different afflictions, for example, diabetes, circulatory strain, stomach related messes, joint pain, arteriosclerosis, constant weariness, asthma, varicose veins and heart conditions. Research center tests have demonstrated the yogi's expanded capacities of deliberately controlling autonomic or compulsory capacities, for example, temperature, heartbeat and circulatory strain. Examination into the impacts of yogic practices on HIV is in progress with promising outcomes.

As per clinical researchers, yoga treatment is fruitful in light of the equilibrium made in the anxious and endocrine frameworks, which straightforwardly affects the wide range of various frameworks and organs of the body. Yoga acts both as a healing and preventive treatment. The actual quintessence of yoga lies in accomplishing mental harmony, further developed focus controls, a casual condition of living and concordance seeing someone.

Through the act of yoga, we become mindful of the interconnectedness between our passionate, mental and actual levels. Systematically this mindfulness prompts a comprehension of the more unpretentious areas of presence. A definitive objective of yoga is to make it feasible for you to have the option to meld the gross material (annamaya), physical (pranamaya), mental (manomaya), scholarly (vijnanamaya) and profound (anandamaya) levels inside your being.

### **Physiological Advantages**

Doctors and researchers are finding pristine medical advantages of yoga consistently. Concentrates on show it can free the side effects from a few normal and possibly hazardous diseases like joint pain, arteriosclerosis, ongoing weariness, diabetes, Helps, asthma and stoutness.

### **Asthma**

Studies directed at yoga establishments in India have revealed noteworthy achievement in further developing asthma. It has additionally been demonstrated that asthma assaults can for the most part be forestalled by yoga techniques without depending on drugs.

Doctors have tracked down that the expansion of further developed focus capacities and yogic contemplation along with the act of basic stances and pranayama makes treatment more compelling. Yoga practice additionally brings about more prominent decrease in uneasiness scores than drug treatment. Specialists accept that yoga practice helps patients by empowering them to get to their own inner experience and expanded mindfulness.

### **Breathe Issues**

Patients who practice yoga have a superior possibility acquiring the capacity to control their breathing issues. With the assistance of yogic breathing activities, it is feasible to control an assault of serious windedness without looking for clinical assistance. Different examinations have affirmed the advantageous impacts of yoga for patients with respiratory issues.

### **Hypertension**

The unwinding and practice parts of yoga play a significant part to play in the treatment and counteraction of (hypertension). A blend of biofeedback and yogic breathing and unwinding methods has been found to bring down pulse and lessen the requirement for hypertension prescription in individuals experiencing it.

### **Pain Management**

Yoga is accepted to lessen torment by assisting the mind's aggravation with focusing manage the door controlling instrument situated in the spinal rope and the emission of regular pain relievers in the body. Breathing activities utilized in yoga can likewise lessen torment. Since muscles will quite often loosen up when you breathe out, stretching the hour of exhalation can assist with creating unwinding and lessen pressure. Familiarity with breathing assists with accomplishing more settled, more slow breath and help in unwinding and torment the board. Yoga's consideration of unwinding methods and reflection can likewise assist with lessening torment. Part of the viability of yoga in decreasing agony is because of its emphasis on mindfulness. This mindfulness can have a defensive impact and consider early preventive activity.

### **Back Torment**

Back torment is the most widely recognized motivation to look for clinical consideration. Yoga has reliably been utilized to fix and forestall back torment by improving strength and adaptability. Both intense and long haul pressure can prompt muscle strain and fuel back issues.

### **Joint inflammation**

Yoga's delicate activities intended to give help to required joints had been Yoga's sluggish movement developments and delicate tensions venture profound into disturbed joints. What's more, the simple stretches related to profound breathing activities alleviate the pressure that ties up the muscles and

further fixes the joints. Yoga is exercise and unwinding moved into one - the ideal enemy of joint pain equation.

#### **Weight Decrease**

Standard yoga practice can help in weight the board. Initially, a portion of the asanas invigorate languid organs to expand their hormonal emissions. The thyroid organ, particularly, bigly affects our weight since it influences body digestion. There are a few asanas, for example, the shoulder stand and the fish act, which are explicit for the thyroid organ. Fat digestion is additionally expanded, so fat is changed over to muscle and energy. This intends that, as well as losing fat, you will have better muscle tone and a higher imperativeness level. Yogic practices that diminish tension will generally lessen restless eating. What's more, yoga profound breathing expands the oxygen admission to the body cells, including the fat cells. This causes expanded oxidation or wrecking of fat cells. Yogic activities initiate more persistent and more profound breathing, which slowly consumes, in some cases powerfully, large numbers of the calories previously ingested.

#### **Mental Performance**

A typical strategy utilized in yoga is breathing through each nostril in turn. Electroencephalogram (EEG) investigations of the electrical motivations of the mind have shown that breathing through one nostril brings about expanded action on the contrary side of the cerebrum. A few specialists propose that the customary act of breathing through one nostril might assist with further developing correspondence between the rights and left half of the mind. Studies have additionally shown that this expanded mind movement is related with better execution and specialists even propose that yoga can upgrade mental execution.

#### **Disposition Change and Essentialness**

Psychological wellness and actual energy are hard to measure, yet each individual who partakes in yoga throughout some stretch of time reports a constructive outcome on viewpoint and energy level. Yogic extending and breathing activities have been believed to bring about a strengthening impact on both mental and actual energy and further developed mind-set.

#### **Profound Advantages:**

Whenever you accomplish the yogic soul, you can start knowing yourself settled. The benefit of finding one's self and of partaking in one's self with no guarantees, starts an excursion into being rather than doing. Everyday routine can then be experienced rehearsing "yoga off the mat". Pride, and particularly tension about pride, is something, which Hatha Yoga tries to lessen or kill. To one who has been crestfallen because he cannot go about his responsibilities appropriately when he becomes drained, crabby, or run down, any level of reward might be joined by extra levels of confidence. Moreover, one who has profited from yoga might be moved to help his companions who are clearly out of luck, he might educate others and be compensated with appreciation due a to instructor. Nevertheless, assuming one prevails about accomplishing expertise, which gives wellbeing and fearlessness; one may fairly raise his confidence just by noticing himself living the better outcomes as an accomplished reality.

**Conclusion:** Yoga for sports is consequently an aid for competitors as it can assist them with crossing train, lessen wounds, ease fatigue and change up their day by day preparing routine Advantages of Yoga.

#### **References**

1. Yogasana and Pranayama for health – Sharma P.R.
2. Yoga Research today.Net
3. Yoga for Runners –Yoga Journal
4. Raja Yoga in health and disease – B.K.I.ViswaVidhyalaya University
5. News. Psychology in sports and physical education - Prof. Dr. Amresh Kumar
6. Sports Psychology a study of India sportsman - Singh Agyajit
7. Research process in Physical Education in sports introduction - Dr. S.K. Singh
8. Essentials of physical education - Dr. Ajmer Singh, Dr. Jagtar Singh
9. Psychology of Physical Education and sports - M.L. Kamlesh
10. The Health Benefits of Yoga and Exercise: A Review of Comparison Studies. The Journal of Alternative and Complementary Medicine, 16 (1), 3–12.
11. Heart rate in yoga asana practice: A comparison of styles. Journal of Bodywork and Movement Therapies, 11, 91–95.



**Patanjal Yoga and Sri Aurobindo's Integral Yoga**

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India is having a spiritual Legacy of saints and seers. From the beginning of human existence, human life has remained an attraction to unknown things and curiosity about the creation of the universe. And there have been constant external stimuli and internal longings about the experiences. While undergoing these experiences certain questions might have come in the mind: Who am I? What is the objective of my life? Is it possible to control the mind? Who controls this universe? Can we experience the controller of this universe? All the answers to these questions have led to the study of philosophy. The detailed philosophic study introduced 'Shad Darshan' - one of them is Patanjali yoga. Yoga is the union of 'Jivatma and Paramathma'. The technique of pacification of the mind is yoga. This idea is incorporated in the 'Patanjali yoga Sutra'. For Patanjali worldly prosperity was as important as salvation. The real meaning of Patanjali Yog Darshan is to do yoga Sadhana because it is an experimental science. It is said by

BhatruHari- ' Yogenachittasya Paden Vacham

MalamSharirasyachVaidyaken

YoPakrottamPravara. MuninaamPatanjaliPranjalirantosmi' .

Patanjali is believed as an incarnation of God Vishnu. Yogi Patanjali was a very great personality who wrote yoga shastra to clean up the mind, the grammar to purify his voice, and Ayurveda Samhita to eradicate physical defects. He was the triune confluence of language experts, scientists, and philosophers. And that is why he was able to formulate Yoga Darshan. PatanjaliYog Darshan is written in 195 sutras. These sutras have been described in the form of detailed texts

by many scholars. Patanjali Yoga Sutra is a scientific study of yoga. It is divided into four parts

a. Samadhi paad b. Sadhan pad c. Vibhuti pad, d. Kaivalya pad

In the first, the part that is in Samadhi paad 'Chittavritti' is focused, in the second part Panchakleshas' are interpreted and the yoga Sadhana Yamaha, Niyama, Aasan, Pranayam, and Pratyahara are suggested to eradicate these kleshas. In Vibhuti pad Dhyana and Samadhi are discussed. Kaivalypad the last stage is the crown of all stages. Patanjali yoga is also called Raja Yoga or Ashtanga yoga where eight stages are supposed as very important for the development of Sadhakas.

Yogi Aurobindo is a modern Yogi and seer. He introduced Integral yoga. His all writings deal with the philosophical aspect of Integral yoga. He has defined the central purpose of Integral yoga in his book 'Synthesis of yoga'. In his own words "Integral yoga is the transformation of our superficial narrow and fragmentary human ways of thinking, seeing, feeling and being into a deep and wide spiritual consciousness and an integrated inner and outer existence and of our ordinary human living into the divine way of life." Integral yoga accepts the value of cosmic existence. It holds to be a reality. It aims to go into higher truth of consciousness or Divine supramental consciousness. That is all perfection, that is complete truth, the Light, the Divine Bliss, that is also called as 'Sat Chit Anand '. It is very

**Mrs. S.M.Paranjape**

difficult for ordinary human beings to pass by. But one can do it, true efforts can lead towards such supramental consciousness. One can get the call and the change is possible. Sadhana or practice of Integral yoga can be proceeded by only aspirations and self-opening to an influence, by self concentration inwards and upwards. It is by faith, aspirations and complete surrender one can make a self-opening. The principle of the Integral Yoga is defined in the ‘Auroville’ that to give oneself entirely to the Divine alone and nobody else and to bring down into ourselves by union with the Divine Mother all the transcendent light, power wideness, peace, purity, truth, consciousness and ‘Anand ‘of supramental Divine. The fundamental realizations of Integral yoga- the psychic

change, so that a complete devotion can be the main motive of the heart and the ruler of thought, Life, and action in constant union with the mother and her presence. The whole heart and action and mind of man must be changed, but from within, not from without not by political and social institutions, not even by creeds and philosophies. But my realization of God in ourselves and the world. This can be affected by Purnayoga, a yoga not devoted to a particular purpose, even though that purpose is ‘Mukti ‘or ‘Aanada’, but to the fulfillment of the divine humanity in ourselves and others. It is an absolute self-surrender to the ParatparaPurusha. The surrender must be complete. The heart must be purified of all desires, the intellect of all self-will. Every duality must be renounced. The whole world must be recognized as supreme divine power.

‘Ahankara’ must be blotted out as God intends us ultimately to have, the perfect bliss, the perfect calm, and knowledge. This attitude of self-surrender must be pure, then only divine power works. The first step is to make the ‘Sankalp’ of ‘Aatmasamarpanam’ .put yourself with all your heart and all your strength into God's hands. Do not put any conditions, ask for anything. Then only in you and through you, his will may be directly performed.

The next process is to stand aside and watch the working of the divine power in yourself. Strong faith is necessary. Doubt in this age is an almost universal impurity. The same thought remembers from Bhagwad Geeta -

" By giving thyself up in heart and mind to Me, thou shalt cross over all difficulties and perils by My grace,"

The object of Integral yoga is self-perfection and not self-annulment. Escape from the world was the wisdom of some philosophers. But here in Integral yoga, the world is Brahman, the world is God, the world is Satyam, the world is Aananda, It is our wrong relationship with God in the world that is misery. There is no other cause of sorrow. God created the world in Himself through Maya. The Vedic meaning of the word Maya is not an illusion. It is wisdom, knowledge, capacity, wide extension in consciousness. We can enjoy the truth in this world by casting away our egoistic existence into perfect unity with His being, we can receive the divine perception and freedom.

This can be possible only by yogic practice and the supramental stage can be achieved. Thus man is a transitional being. He is a mind imprisoned, obscured, and circumscribed in a precarious and imperfect living. And the superman will be a supramental spirit that will envelop and freely use a conscious body for spiritual forces.

ShriAurobindo writes in one of his poems ‘ Krishna’

“At last I find a meaning of soul’s birth  
 Into this universe terrible and sweet,  
 I who have felt the hungry heart earth  
 Aspiring beyond heaven to Krishna’s feet.... “

**Reference**

1. SriAurobindo,TheSupramentalManifestation,8
2. Sri Aurobindo,TheSynthesisofYoga,508
3. PatanjalyogdarshanDr.SriramAgasheSwamiVivekanandPublication
4. SriAurobindo,TheHumanCycle,229.
5. SynthesisofYoga,303.
6. SriAurobindo,TheLifeDivine,925-6.
7. SynthesisofYoga,2.
8. SriAurobindo,LettersonYoga,2vols,2.94.
9. Synthesis of Yoga, 587.
10. ShriAurobindo Edited by MakarandParanjape 145
11. Collected Poems by Yogi Aurobindo



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