## Accountability in Higher Education

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#### Abstract

: Indian higher education system is vast and diverse with 227 recognized universities, 16,885 affiliated colleges with total enrollment of about 99.54 lakh students trained by about 4.57 lakh teachers in the year 2006-2007 ${ }^{1}$. The number has increased since then leaps and bounds, but self-reflection and public accountability are seldom counted among them. Although accreditation has been made indirectly compulsory for all recognized universities and affiliated institution, often doubts are raised about the credibility and quality of accreditation and assessment process. The purpose of this monograph is to help college teachers think about, understand, and respond thoughtfully and effectively to the increasing demands for accountability in education. Readers will acquire a comprehensive and rather sophisticated set of concepts and insights into accountability that will help them in working with staff, in building collaborative relationships with others within the department and with external partners, and in contending with critics. The college principal, as the primary leader and chief executive officer of the institution, bears the brunt of the responsibility to ensure that demands for institutional accountability-whether externally or internally generated-are adequately met. Objectives: The objectives of the present research paper is to explore the changes taking place in the higher education system in India and highlight the need for clear definition of responsibility and accountability of the various stakeholders in the system. Hypothesis: The present study is based on the hypothesis that there is much of overlapping and confusion in defining responsibilities and accountability in the higher education system. With the increasing privatization of education system in the country, there is a need for clear demarcation of responsibility and accountability in the higher education system.


Methodology: The present research is a descriptive research based on secondary data collected from the research studies and views and opinions of scholars and academicians working with the college affiliated to the University of Mumbai.
Scope of the Study: The present study deals with responsibility and accountability aspects of the higher education system in India.

Significance of the Study: The present study will help academicians and policy makers in understanding the significance of clearly defining responsibilities and accountability in education sector.
Limitations of the Study: The study is purely based on secondary data and is restricted to the opinions and views of teachers and principals of the institutions affiliated to the University of Mumabi.

## Accountability in Higher Education in India

## Accountability — Muddled Meanings, Increased Importance:

Accountability in education, especially in the current context of multiple reforms and restructuring, is a rather muddled concept. One needs only listen to snippets of the current educational reform dialogue to realize that "accountability" has many meanings for political leaders, education officials, teachers, parents, community and business leaders, and the general public. Sometimes, accountability is used synonymously with "responsibility." Other times, the term appears to refer to reporting to those with oversight authority or, more globally, to the general public; or to demonstrating compliance with established laws, rules, regulations, or standards; or to distributing rewards and sanctions tied to results. The need to be clear about what accountability means has never been more compelling.
The National Accreditation and Assessment Council (NAAC) of India has devised a system of grading colleges. This system integrates information from student assessment, personnel evaluation, school evaluation, and system evaluation. $90 \%$ of the higher education institutions in India have been accredited and reaccredited under the system of NAAC. The need for NAAC derives, in part, from accountability concerns related to earlier reforms that began redistributing operational authority to colleges. The HRD Ministry has proposed gradual withdrawal of grants and assistance to higher education institutions in India. Consequently, continued decentralization of authority to colleges seems likely, as does an accompanying transfer of accountability.

## Accountability, What Is It?

Accountability is multi-faceted: it involves responsibility, authority, evaluation and control. So how might "accountability" in education be defined? Explicit definitions of accountability inthe literature were infrequent. The following "working" definition of accountability is proposed (Heim, 1995):

## "Accountability is the responsibility that goes with the authority to do something. The responsibility is to use authority justifiably and credibly."

Accountability, then, is a form of responsibility. It involves at least two parties and a mutually acknowledged relationship between them. That relationship involves a delegation of authority to take some action, from one party to another. (Where no delegation of authority occurs, there should be no expectation for accountability.) That authority, however, is delegated conditionally, at minimum, upon
demonstrably credible performance. Although one may hope for ideal performance, it is credible performance (i.e., at least as good as might be reasonably expected under the relevant conditions) that should be deemed sufficient. Control is exercised via the delegation of authority, which may be continued or may be withheld, conditional on credible performance.
Accountability may extend further to include responsibility for the consequences or results ofone's actions-whether positive or negative, and whether intended or not. This focus might be termed consequential accountability. It includes the ERIC Thesaurus definition (1994). Consequential accountability is implied by those who advocate that education should be "results-driven."

## Accountability in Higher Education - A necessity :

Now the question arises, why accountability is so important in higher education system? Indian higher education system is state owned and state protected sector. Although it has largely remained the state monopoly, it has produced the institutions of international standards ad repute, viz. several IITs and IIMs. In recent years, the Indian Higher Education System has enlarged length and breath wise, putting heavy burden on state budgets. At the same time, the government has permitted a number of deemed universities and private institutions to open centers of educations without much control and evaluation. The result being number of private universities have come under public criticism and subsequent government scanning.
The other reasons being, the government pumps in crore of rupees in higher education system to update and elevate higher education in India. In other words, the higher education system in India is financed out of public funds. This demands more commitments from the people who are associated with the system, both internally and externally.
Considering this scenario, accountability in higher education has assumed a significant proportion in recent time.

## Who are Accountable, to whom and for what?: <br> Who are accountable?

The accountability in India higher education system can be explained with the help of accountability pyramid.


### 1.1 Hierarchy of Accountability in Higher Education System in India

(a) Policy Makers such as ministries and bureaucrats need to take in account the requirements of general public while formulating policies regarding higher education sector.
(b) Universities and its bodies such Academic Council, Management Council and Senate need to take in to account the requirements of youth which can provide them with employment.
(c) Colleges and their administration need to ensure that the policies and programmes framed by above to authorities are implements in right perspective.

## To whom they are accountable?



### 1.2 Stakeholders to Whom they are Accountable

The above diagram clearly indicates that higher the level higher is the responsibility. Policy makers are responsible to Universities and their bodies and

Colleges and their Administration.
Universities and their bodies in turn are responsible to Affiliated Colleges and their internal administration.
All the above bodies are individually responsible to general public and society at large.

## For what are they accountable?



### 1.3 Areas of Accountability

The above table clearly states that the policy makers are responsible for formulation

## Enforceability of Accountability:

The accountability at various levels can be enforced by:
(a) At the Level of Policy Makers:
> Long term time bound policy with annual revisions.
> Performance based funding.
> Focus on backward regions.
(b) At the Level of University:
> Strengthening NAAC and imparting objectivity in assessment.
> Transparency in the functioning of Universities.
> Integration of various universities.
> Annual audit of Universities.
(c) At the Level of College:
> Principal's evaluation by teachers and students.
> Teacher's evaluation by students and heads.
$>$ Performance linked incentives for teachers.

## Suggestions:

1. Government interference in education should be curtailed and eliminated.
2. Self-assessment of universities, administrators, colleges and teachers should be undertaken annually.
3. An independent professional body should be set up to evaluate colleges, institutions and universities with more objectivity.
4. Funding to the colleges and universities should be linked to their performance.
5. Teachers should be provided performance based incentives.
6. A strong hierarchical set up should be established to ensure in-built control of central bodies on universities, of universities on colleges and of colleges on teachers.
7. Student's involvement in the area of University/College governance should be encouraged.
8. Political interference in the appointment of University teachers and administrators should be totally stopped.

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# Growth Variation and Leg Explosive Power among Physical Education Students 

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#### Abstract

The purpose of the study was to find out the Growth variation and leg explosive power among physical education students. It was hypothesised that there may be significant growth variation in adolescent boys and girls among physical education students in the age group of 17 to 21 years. Three hundred and eighty three students were selected for the study and of which two hundred and twenty six students from first years and one hundred and fifty seven students from third years age ranged from 17 to 21 years. The following tests were conducted such as height, weight, chest measurement (normal), full breath in (chest measurement), hip measurement, standing broad jump. In order to analyse the data " t "- ratio was used and find the level of significance. There were significant results on height, hip measurement, full breath in ,standing broad and chest measurement( I yr and III yr Girls) between i yr and iii yr boys and girls and not significant on chest measurement( I yr and III yr Boys), and weight between i yr and ii yr boys and girls.


Keywords: growth, development, adolescence, explosive power, body composition.

## Introduction

Many of our fondest and most vivid memories are probably associated with your birthdays. The day of birth is an important milestone of life. Most people continue to remember their birthday in some special way each year birthdays serve as pleasant and convenient reference points to make periods of transition or change in our lives. The actual day of birth marks the end of one phase of life called the pre natal period and beginning of a second period called the post natal period. The pre natal period begins at conception and ends of birth; the post natal period begins at birth continues until death. Although important periods in our lives such as childhood, adolescence, and one often remembered on the serious of individual and isolated events, they are in reality part of an ongoing and continuous process. In reviewing the many changes that occur doing the cycle of life from conception to death, it is after convenient to isolate certain periods such as infancy or adulthood for study. It is important to remember, however that life is not a serious of stop and start events or individual and isolated periods of time. Instead it is a biological process that is characterised by continuous modification and change.

The average age range of adolescent varies, but generally the teenage years (13 to 19 are used).the period is marked by rapid and intense physical growth which ultimately results in sexual maturity. Many of the development changes occur during this period are controlled by the secretion of sex hormones, and one
classified as secondary sex characteristics. Breast development is often the first sign of approaching puberty in girls beginning about age 10. Most girls begin to menstruate at 12 to 13 years of age which is about three years earlier than a hundred years ago. In boys the first sign of puberty is after enlargements of the testicles, which begins between 10 and 13 years of age. Both sexes show a spurt in height during adolescence. In girls, the spurt in height begins between the ages of 10 and 12 and is nearly complete by 14 and 15. In boys, the period of rapid growth begins between 12 and 13 and is generally complete by 16. Many development al changes that began early in childhood are not completed until the early (or) middle years of childhood.

## Methodology

Three hundred and eighty three students were selected and of which two hundred and twenty six students from first year and one hundred and fifty seven students from third year, age ranged from 17 to 21 years.
The following tests were conducted to find out the growth variations and leg explosive power. Such as

1. Height
2. Weight
3. Chest measurement (normal)
4. Full breath in (chest measurement)
5. Hip measurement
6. Standing broad jump

TABLE- 1
Mean, Standard Deviation and "T"Ratio of Height for I Year and lii Year Boys and Girls

| SI.No | No of subjects | Groups | Means | SD | "t"ratio | Level of significance |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | 190 | I yr.Boys | 168 | 6.36 |  |  |
| 2. | 92 | Illyr.Boys | 170 | 5.92 | 2.63 | .01 |
| 3. | 65 | I yr.Girls | 157 | 5.34 |  |  |
| 4. | 36 | Ill yr.Girls | 155 | 5.98 | 1.69 | .1 |

NS. Not Significant Required table values .01-2.60 .1-1.66
TABLE - 2
Mean, Standard Deviation and "T"Ratio of Weight for I Year and lii Year Boys and Girls

| SI.No | No of subjects | Groups | Means | SD | "t"ratio | Level of significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 190 | 1 yr.Boys | 59.06 | 6.94 | 1.09 |  |
| 2. | 92 | Illyr Boys | 60.07 | 7.54 |  | N.S |
| 3. | 65 | 1 yr.Girls | 48.06 | 6.70 |  |  |
| 4. | 36 | III yr.Girls | 47.11 | 6.96 | 1.04 | N.S |

TABLE- 3
Mean, Standard Deviation and "T"Ratio of Chest Measurement for I
Year and lii Year Boys and Girls

| SI.No | No of subjects | Groups | Means | SD | "t"ratio | Level of significance |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | 190 | I yr.Boys | 79.61 | 4.49 |  |  |
| 2. | 92 | Illyr Boys | 80.45 | 5.32 | 1.33 | N.S |
| 3. | 65 | I yr.Girls | 48.06 | 5.84 |  |  |
| 4. | 36 | Ill yr.Girls | 47.11 | 3.96 | 3.11 | .01 |

N.S. Not Significant Required table values .01-1.66 NS-1.66

TABLE - 4
Mean, Standard Deviation and "T"Ratio of Full Breath in For I Year and lii Year Boys and Girls

| SI.No | No of subjects | Groups | Means | SD | "t"ratio | Level of significance |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | 1900 | I yr.Boys | 84.52 | 4.72 |  |  |
| 2. | 92 | Ill yr.Boys | 85.58 | 5.33 | 1.67 | 0.1 |
| 3. | 65 | I yr.Girls | 83.33 | 6.10 |  |  |
| 4. | 36 | III yr.Girls | 80.05 | 4.07 | 3.28 | 0.01 |

N.S. Not Significant Required table values .01-1.65 0.01-1.66

TABLE- 5
Mean, Standard Deviation and "T" Ratio of Hip Measurement for I Year and lii Year Boys and Girls

| SI.No | No of subjects | Groups | Means | SD | "t"ratio | Level of significance |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | 190 | I yr.Boys | 68.25 | 5.80 |  |  |
| 2. | 92 | Illyr Boys | 70.75 | 6.24 | 3.28 | 0.1 |
| 3. | 65 | I yr.Girls | 70.95 | 4.46 |  |  |
| 4. | 36 | Ill yr.Girls | 73.3 | 6.76 | 1.89 | .1 |

N.S. Not Significant Required table values .01-2.60 .1-1.66

TABLE - 6
Mean, Standard Deviation and " $T$ " Ratio of Full Breath in For I Year and lii Year Boys and Girls

| SI.No | No of subjects | Groups | Means | SD | "t"ratio | Level of significance |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | 190 | Iyr.Boys | 207 | 14.36 |  |  |
| 2. | 92 | Illyr Boys | 215 | 17.51 | 3.82 | 0.1 |
| 3. | 65 | I yr.Girls | 153 | 10.22 |  |  |
| 4. | 36 | Ill yr.Girls | 152 | 8.67 | 7.52 | 0.1 |

N.S. Not Significant Required table values .01-2.60

Figure-1 The Mean Values of I Yr and lii Yr Girls on Height


Figure- 2 The Mean Values of I Yr and lii Yr Boys on Height


Figure- 3 The Mean Values of I Yr and lii Yr Girls on Weight


Figure- 4 The Mean Values of I Yr and lii Yr Boys on Weight


Figure- 5 The Mean Values of I Yr and lii Yr Girls on Chest Measurement


Figure- 6 The Mean Values of I Yr and lii Yr Boys on Chest MEASUREMENT


Figure- 7 The Mean Values of I Yr and lii Yr Girls on Full Breath IN


Figure- 8 The Mean Values of I Yr and Iii Yr Boys on Full Breath IN


Figure- 9 The Mean Values of I Yr and lii Yr Girls on Hip MEASUREMENT


Figure-10 The Mean Values of I Yr and lii Yr Boys on Hip MEASUREMNT


Figure-11 The Mean Values of I Yr and lii Yr Girls on Standing MEASUREMEN


Figure-12 The Mean Values of I Yr and lii Yr Boys on Standing Broad JUMP


## Conclusion

The following conclusions were drawn from this study.

1. There was a significant difference between I Yr and III yr boys on height which may due to the growth factors.
2. There was a significant difference between I Yr and III yr girls on height which may due to the growth factors.
3. There was no significant difference between I Yr and III yr boys on weight due to the imbalances in nutritional status besides due to the training factors
4. There was no significant difference between I Yr and III yr girls on weight due to the imbalances in nutritional status besides due to the training factors
5. There was a significant difference between I Yr and III yr boys on hip measurement which may due to the growth factors.
6. There was a significant difference between I Yr and III yr girls on hip measurement which may due to the growth factors.
7. There was a significant difference between I Yr and III yr boys on full breath in which may be due to the secretion of hormones and biological factor.
8. There was a significant difference between I Yr and III yr girls on full breath in which may be due to the secretion of hormones and biological factor.
9. There was a significant difference between I Yr and III yr boys on standing
broad jump and may be due to the growth of height
10. There was a significant difference between I Yr and III yr girls on standing broad jump and may be due to the growth of height
11. There was no significant difference between I Yr and III yr boys on chest measurement
12. There was a significant difference between I Yr and III yr girls on chest measurement

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# Understanding Academic Audit with Reference to the Accountability Triangle 

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## Introduction:

The higher education sector in India is considered to be the third largest educational system in the world, after United States of America and China which caters education to approximately six million students at various educational institutions through over Universities and about colleges. With the rapid expansion of enrolment in higher education, countries around the world face the challenge of ensuring quality. Thus, quality assurance is the most talked about issue in higher education and least understood. There are many stakeholders in higher education, including students, employers, teaching and non-teaching employees, government, funding agencies, regulatory bodies, professional bodies and the accreditation agencies. Each of these stakeholders has a different view about quality, influenced by their own interests in higher education. Their views represent their expectations from higher education and its quality.

When higher education is conceived as the production of highly qualified manpower, the graduates are seen as products whose career earnings and employment will relate to the quality of the education that they have received. When higher education is linked to training for a research career, the performance indicators (PIs) then become the research output of staff and students. The third conception is higher education as the efficient management of teaching provision. In this view, the Pls are efficiency indicators, such as completion rates, unit cost, student-staff ratio and other financial data. Educational institutions as organizations need to be healthy so they can adapt to the pressures of global competition, technological innovation and increasing expectations from all stakeholders. In today's knowledge based economy, much emphasis is placed on Customer Relationship. ${ }^{1}$

Therefore, what counts as quality is often contested; quality may mean different things to different people who would demand different quality outcomes and methods of assessing quality. Quality is also sometime seen as a "relative concepts". It is relative to the user of the term and the circumstances in which it is involved. In the context of quality in higher education, three terms, accreditation, assessment and academic audit are often and interchangeably used. These mean different things.

Accreditation: Is an education of whether an institution (or programmed) qualities for a certain status. Accreditation provides the outcome binary scale yes/no or accredited / not accredited.

Assessment: Gives an idea of the quality of the outputs. Typical outcome of assessment results in a multi-point grade numeric or literal or descriptive.
Academic Audit: Is focused on those processes by which an institution monitors its own academic standards and acts to assure and enhance the quality of its offerings. The objectives of the institutions or program are taken as the starting point for the audit. The audit is usually done by a small group of generalist and it results in audit report.

## Academic audit: ${ }^{2}$

Academic audit examined an institution's quality assurance and improvement processes rather than the delivered quality of education itself. There are as many versions of audit as there are implementations. Audit is unique in being able to combine stake holder's accountability and improvement agendas. The tension between accountability and improvement can be largely mitigated by adopting the principles of academic audit.
The Accountability Triangle: Burton Clark's famous triangle used state control academic oligarchy, and market model as the three forces dominating coordination of higher education systems in a comparative international context. His governance triangle estimates the influences of these three factors in coordinating national systems of higher education. The following figure substitutes state priorities, academic concerns, and market forces to create an Accountability Triangle for higher education. ${ }^{3}$ It assesses the responsiveness of accountability programs to the three interests and pressures that most affect higher education in this country:
(a) State priorities reflect the public needs and desires for higher education programs and services, often as expressed by state officials but also by civic leaders outside government;
(b) Academic concerns involve the issues and interests of the academic community, particularly professors and administrators;
(c) Market forces cover the customer needs and demands of students, parents, and businesses, as well as other clients of colleges and universities. State priorities, academic concerns, and market forces also reflect, respectively, the civic, collegiate, and commercial cultures and interests. State priorities represent political accountability, academic concerns reflect professional accountability, and market forces push market accountability.

## Accountability Triangle

State Priorities
(Political)


Market Concerns<br>(Professional)

Market Forces<br>(Market)

Each of the three corners of the Accountability Triangle has a bright and dark side, reflecting both broad needs and special interests. State priorities can constitute what the citizens of a state need most from higher education, such as better collegeteachers, an educated workforce and an informed citizenry. Academic concerns can encourage free enquiry and discussion of ideas, beliefs, and institutions infused by openness, scholarship, and objectivity. It can also reflect the resource-reputation model of higher education that views institutional quality as mostly a matter of recruiting the brightest students, hiring the faculty stars, and raising the most resources. Market forces can mean meeting the real needs of citizens and society for programs and services or responding to the dominant economic interest in a state or to commercial schemes or consumer fads. ${ }^{4}$

By and large, state priorities, academic concerns, and market forces present conflicting demands, with some interesting expectations. At times, the drive for prestige and reputation merges academic concerns, public priorities, and market forces and succumbs to the wiles of the resource-reputation model of excellence for colleges and universities. These odd coupling produces more lawyers and physicians than society needs rather than the nurses and teachers that society requires. At times, the demand for research in an economy driven by innovation unites the interests of state priorities, academic concerns, and market forces. State priorities and market forces have some common interest, but the formal calls for public priorities, whereas the latter relies on private preferences. In addition, state priorities should last longer than market forces.

Higher education and its colleges and universities, both public and private, are inevitable accountable to state priorities, academic concerns, and market forces. They should serve all while submitting to none of these imperatives. Being accountable to each of the three concerns of the Accountability Triangle means balancing the response to ensure service without subservience to public priorities, academic concerns, and market forces. ${ }^{5}$

Given the importance of state priorities, academic concerns, and market forces as representing political, professional, and market accountability, the center of the Accountability Triangle seems the ideal spot for an effective accountability system and perhaps for some of the accountability programs. Whatever the accountability programs of the past and present, effective efforts in the future must combine each of these angles of the Accountability Triangle. ${ }^{6}$

A well developed system of academic audits that has been around long enough for institutions to climb the quality process maturity curve. Such institutions will routinely assess student learning and the outcomes enjoyed by graduates. They will do this mainly for their own purposes, that is, to provide the feedback they need to assure and continuously improve quality. But once the assessment data are available, colleges that can document good quality will
almost surely use the data publicly. Prospective students and parents will come to expect such reports, and publishers of college guides will begin to supply the information whenever they can get it. Institutions of lower quality will be pressed to report their data, as even mediocre data may play better than no data at all. This situation is depicted by the "Ideal Audit" call out at the right of the figure .It points to the center of the triangle because this audit would serve all three purposes simultaneously. In addition to serving political and professional interests, audit would vet the education quality data supplied to the marketplace. As in financial audits, the institutions produce the data, but auditors review their methodology. The auditors cannot determine whether the results are right in every detail, but they can enforce generally accepted principles and usually prevent material misrepresentation. ${ }^{7}$

Institutions across the higher education spectrum are spurred to produce meaningful grassroots student learning assessments, which are vetted by auditors from time to time. Those with good assessment results use them in recruiting, fundraising, and political lobbying. College choice publications take note of these data because some readers find them interesting, if for no other reason. Some elite institutions try to discredit the reported assessment methodologies, but this only triggers a long-overdue debate about measurement versus reputation. Such institutions are challenged to justify their reputations with real data, and soon those with good stories to tell begin to tell them. Eventually, all institutions are expected to publish audited assessment reports, perhaps as a condition for accreditation, just like public corporations are expected to publish audited financial reports.

Responding to state priorities, academic concerns, and market forces offers a challenge, not a choice, for higher education. Colleges and universitiesprivate and public-must serve all but submit to none of these imperatives. Stressing one and slighting the others loses the equilibrium among these interests. Focusing narrowly on state priorities can subject higher education to political winds without the moderating influences of academic concerns or market forces. Accenting mostly academic concerns can reduce responses to public priorities and market needs. Reacting impulsively to markets can mean chasing consumer whims while ignoring public needs and academic necessities. The three corners of accountability, like the tripartite branches of government, balance each other, ensuring service to all but submission to none of the civic, collegiate, and commercial interests.

Accreditation, assessment, reputational ratings, and academic audits reflected mostly academic concerns. State report cards, performance reports, performance funding and budgeting, and standardized testing stressed state priorities. Student and alumni surveys solicited the opinions of current and former customers, but institutional reluctance to publish their results stifled their usefulness to perspective students and state officials. All though reputational ratings supposedly reflected market forces, they really responded to academic concerns for resources and reputation, not the usual customer concerns for prize
and quality.
Accountability imperatives of state priorities, academic concerns, and market forces they could come close in combination. Regional accreditation is the natural carrier for other accountability programs. Accreditation could combine them, and they in turn, could strengthen accreditation. Regional accreditation has long included assessment of student learning. Including academic audits could strengthen accreditation's connection to outcome assessment and reinforce the attention to academic quality and student learning. Accreditation could also encourage the use and insist on reviewing results from and alumni surveys. In addition, accreditation teams could consider the performance of colleges and universities on the critical indicators in the state-by-state report cards and the state performance reports and on their responsiveness to the market needs of their regions and communities. Regional accreditation affords the obvious vehicle for integrating all of these accountability approaches into an effective and efficient system.

But before accreditation can absorb other accountability programs, it must cure its fatal flaw-the failure to reveal some sense of the result of accreditation reviews. Steven Crowe, the executive director of the Higher Learning Commission of the North Central Association, said it all in his keynote address at an annual meeting. "I happen to believe that perhaps the biggest challenge we face after adopting new accrediting standards will be tearing down the walls of confidentiality that have so long separated us from a public now wondering what it is we actually do and why we give so little information about what we know ...... It's not a viable formula for integrity and accountability in the long run". ${ }^{8}$

Accreditation will become irrelevant as an accountability program unless it issues at least summaries of the findings of the accreditation process. Publicity could reduce the candor of team reports but proposes releasing the reasons behind the accrediting decisions and, in phases, the effectiveness of educational quality of colleges and universities. The day regional accreditation loses its responsibilities for certifying accountability it will likely lose its support on campus. Program accreditation will continue, for it reflects academic concerns with reputation and prestige and is of interest to student and business markets.

Those markets would show even more interest if program accreditation reported more of the results of their reviews. The public reports from accrediting agencies should assess institutional response to state priorities, academic concerns, and market forces, particularly their service to the public good.

Academic audits already incorporate assessment directly for institutional improvement and only indirectly for demonstrating accountability. Most important, audits also engage academic departments in the accountability process, whereas other approaches often ignore these critical units. Additional connections among accountability programs are desirable. Standardized tests and student and alumni surveys could provide both quantitative and qualitative data and direct and indirect measures of student learning. A limited list of common indicators could link report cards and performance reports at the state, system, sector, and
institution levels and allow policymakers to measure down as well as up the performance chain to track the source of strengths and shortcomings of higher education results in states. Indeed, the combined information provided by these accountability programs might help base market decisions on institutional performance rather than national ratings of resources and reputation.

## Accountability Problems ${ }^{9}$

Accountability for higher education currently suffers from a host of problems:

- Lack of agreement on priorities and goals that leaves open-ended the commitments of, and demands on, higher education and leads to "360-degree harassment."


## -

 accountability programs for higher education.- Split between institutional improvement and external accountability.
- Lack of direct methods of measuring undergraduate learning, especially in general education.

Separation among state, system, campus, and departmental accountability efforts.

Isolated programs rather than integrated approaches to accountability.
Symbolic rather than effective implementation of accountability programs.
Edward Weber asks the right question: "What does an effective system of accountability look like in a world of decentralized governance, shared powers, collaborative decision processes, results oriented management, and civic participation?" and, to add a newer and powerful one, market forces. Accountability systems will differ because states are different, but they should share characteristics because the competing pressures of state priorities, academic concerns, and market forces know no boundaries.

## Characteristics of an Effective Accountability System ${ }^{10}$

What follows are some suggested characteristics of an effective accountability system for states:

1. A Public Agenda identifying what the state needs most from higher education, endorsed by a representative group of business, civic, government, and education leaders.
2. An implementation plan balancing public priorities, academic concerns and market needs that sets priority goals and performance indicators, targets and timetables, coordinated by a statewide board representing all three interests.
3. Private, as well as public, college and university participation in the process and implementation, along with public schools.
4. A focus on external results, not internal operations, of colleges and universities to ensure external accountability while protecting internal autonomy.
5. A commitment to adequate and sustained funding from public and private sources equal to the difficulty and diversity of the Public Agenda, along with readjustment of targets but not goals when budgets must be cut.
6. A balanced approach to funding and tuition in the public sector, coupled with financial aid that encourages access and affordability in both public and private colleges and universities.
7. An appreciation of the contribution to the Public Agenda from all types of colleges and universities based on mission performance, not mission levels.
8. An integrated plan that connects accountability programs and their implementation at the state, system, and institutional levels.
9. Annual performance reports on the progress toward the Public Agenda at the state, system, and institution levels and five year reviews and agenda revisions when necessary to meet new problems or needs.
10. Internal institutional reports that link departmental results to campus missions and the Public Agenda.

## Conclusions:

Accountability in higher education has many faces and has spawned many programs. Despite all this activity, external groups in government and business continually call for more accountability. Higher education does not need more accountability programs. What it needs is better coordination and effective implementation of the ones already in place. Accountability also demands agreement on what states and their citizens need most from their colleges and universities, public and private.

Deciding on the Public Agenda is too critical to the future success of states and their citizens to leave its determination to long-range duels between government officials and academic well. Accountability, especially in times of limited public funding, will only prolong 360 -degree harassment if it continues the perception of an open-ended commitment of higher education to meet everyone's desires. Business, civic, government, and education leaders must work toward 360-degree accountability by determining what each state needs most from higher education and by committing to achieving that public agenda-or the "what" of accountability. Only such an agreed-upon accountability can ensure that higher education responds to all while submitting to none of the three corners of the Accountability Triangle of state priorities, academic concern, and market forces.

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# Effect of Physical Exercise Training at Different Intensities on BMI, Basel Metabolic Rate and Body Fat Percentage of Obese Adolescence 

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#### Abstract

The purpose of the study was to find out the effects of physical exercise training at different intensities on Body Mass Index(BMI), Basel metabolic rate (BMR) and body fat percentage ( $\mathrm{BF} \%$ ) of obese adolescence. The present study has undertaken the survey method for identifying obese of the school going students. The researcher evaluated the existing data from school survey in Triunelveli town ( 6,732 boys) to measure the height and weight of the students (BMI) after which the effect study was conducted. To achieve the purpose of this study thirty nine school boys were selected from St.Johns higher secondary school, and Sri Manthiramoorthy higher secondary school, in Tirunelveli town. Their age ranged from 12 to 18 years. They were divided in to three groups and designed as Experimental group 'A' Experimental group 'B' and Control group 'C' The Experimental group-A was given aerobic and calisthenics exercises, Experimental group-B underwent yogic exercise such as Asanas and Pranayama (breathing exercises) for a period of three months, both morning and evening for five days in a week, whereas control group-C is not involved any specific exercise programme other than their regular physical activities programme as per their school curriculum. The data were collected before and after the exercises programme and statistically analyzed by using analysis of covariance (ANCOVA).The result of this study indicated that body mass index and body fat percentage reduced significantly and also it was obsevered that Basel metabolic (burning capacity) significantly increased.


Key Words: Aerobic Exercise, Body Mass Index, Basel metabolic rate and body fat

## Introduction

Obesity is becoming one of the burning problems all over the world. Obesity can occur at any age. It is one of the most determent health hazards at the world. Several studies however indicate that due to sedentary lifestyle our school going students are utilized towards obesity which affection adversely cardiorespiratory functions, (Foy and Mathews, 1981). To reduce body mass index (BMI)body fat there are among exercise program are available such as interval training from country, sand

Training, will training etc, but such vigorous training programme may not be adversarial for obese students. Now days for moderate physical activities are recommended for obese students which can helps to decrease the BMI and body
fat furtherer advantage of moderate exercise programme of selected physical exercise and yogic exercises age found to be almost effective for the development of health and physical fitness (Bera et,al,2003. Coleg and Bera 2002). In case of aerobic exercise and physical activities programme at different intensities significantly reduces waist circumference, body mass index and body fat mass (Steel et. al, 2009). Obesity decreased significantly due to the school, based physical activities programme with prefers nutrition (Kain et al.2008). Physical activities and yogic practices also plays an important role in different degrees in reduces the BMI and body fat and wire and the burning the metabolic rate. In fact, little information similar to this work, body mass index, body fat and Basel metabolic rate of obesity students is message the present study therefore, has been undertaken.
Basel Metabolic Rate : Basel metabolic Rate is the number of calories your body burns at rest to maintain normal body functions. It is the amount of calories per day your body burns regardless of exercise. It changes with age, weight, height, gender, diet and exercise habits. BMR formula $=66=(13.7 \times$ weight in kg$)+$ ( $5 \times$ height in cm ) - (6.8×age in years).the evidence based research study lazzer (2004) conducted a study on the effect of a weight reduction program on body composition and energy expenditure in obese adolescents. However in this study, body composition, fat mass, Basel metabolic rate, sleeping, sedentary and daily energy expenditure, decreased by exercise and physical training but during training periods. There is no change in fat free mass due to energy expenditure.
Body Fatness: To classify levels of body fatness relative body fat (BF\%), also called percent body fat is used. These two terms are used interchangeably. Relative body fat is the fat mass expressed as a percentage of total body weight (\%BF= Fat Mass/ Body Weight $\times 100$ ). Physical activity may have varying effects on body fat change at different times during childhood, a fact that may explain some of the variability in study results. It is possible that there are critical periods of susceptibility for the development of obesity. Adiposity rebound refers to certain development periods in which there is a rapid increase in adiposity. At 13 to 16 years of age, body fat typically reaches its lowest point prior to a critical period of increasing adiposity. This seems to be a particularly important time, with studies showing that children who reach the nadir of adiposity at a younger age have a higher risk of obesity as adults, Linn et.al (2003).
Methods : The present study has undertaken the survey method for identifying obese of the school going students. The researcher evaluated the existing data from school survey in Triunelveli town ( 6,732 boys) to measure the height and weight of the students (BMI) after which the effect study was conducted. For the purpose of this study thirty nine school boys were selected at randam from Sri Manthiramoorthy higher secondary school, in Tirunelveli town. Their age ranged from 13 to 16 years. They were divided in to three groups and designed as Experimental group ' $A$ ' Experimental group ' $B$ ' and Control group ' $C$ ' The Experimental group-A was given aerobic and calisthenics exercises, Experimental group-B underwent yogic exercise such as Asanas and Pranayama (breathing
exercises) for a period of three months, both morning and evening five days in a week, whereas control group-C is not involved any specific exercise programme other than their regular physical activities programme as per their school curriculum. To find out the Body mass index the Anthropometric measurement such as height weight were measured. Height was measured using a stadiometer to the nearest 1.0 cm without shoes. Body weight was measured to the nearest 0.1 kg with weighing machine,( $\mathrm{BMI}=$ Weight $(\mathrm{kg}) / \mathrm{HeightM}^{2}$ ) Skin fold Caliper was used to find out the body fat percentage and Body fat monitor was used to find out the basal metabolic rate. The data were collected before and after the training periods on the above said variables. The analysis of covariance (ANCOVA) was used in order to find out the existence of significant differences, if any. In case of having significance difference the

Scheffe's post hoc test was used. The level of significance was fixed at 0.05 level of confidence

Results
Table-I
Analysis of Covariance of the Means of the Two Expermental Groups and Control Groups on Body Mass Index (Bmi)

|  | Aerobic exercise Group | Yogic group | Control Group | Source of Variance | Sum of Squares | df | Mean Square | $\begin{aligned} & \text { 'F' } \\ & \text { Ratio } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PreTest Mean | 31.75 | 31.62 | 31.33 | Between | 1.220 | 2 | 0.610 | 2.071 |
| S.D | 0.655 | 0.319 | 0.593 | Within | 10.603 | 36 | 0.295 |  |
| PostTest Mean | 29.71 | 30.71 | 31.315 | Between | 16.987 | 2 | 8.493 | 15.418* |
| S.D | 1.108 | 0.336 | 0.556 | Within | 19.831 | 36 | 0.551 |  |
| Adj.Post- | 29.57 | 30.67 | 31.50 | Between | 22.040 | 2 | 11.020 | 28.687* |
| TestMean |  |  |  | Within | 13.445 | 35 | 0.384 |  |

* Significance at 0.05 Levels. It was observed from that table -1that there is no significant difference in per test ( $\mathrm{F}=2.07,<3.25$ )at 0.05 level of confidence level in observed, however training effects are clearly evident in post test ( $F=15.41>3,25$ ) at 0.05 level and in adjusted post test ( $\mathrm{F}=28.687>3.25$ at 0.05 level) respectively.

These results logically reflect the influence of aerobic exercise and yogic exercise reducing the body mass index although F ratios indicate over all reducing the body mass index, the real group wise reducing the body mass index can be seen in the results of scheffe's post hoc test.

Table- I.a

| Means values | Mean difference |  |  |
| :--- | :--- | :--- | :--- |
| Aerobic group | Yogic group | Control group |  |


| 29.57 | 30.67 |  | -1.1 |
| :--- | :--- | :--- | :--- |
| 29.57 |  | 31.50 | -1.93 |
|  | 30.67 | 31.50 | -0.83 |

Table-I.a, clearly indicates that all the aerobic, as well as control group showed significantly reduced the BMI than the control group, in which all the means of experimental group was found higher than that of the control group from such results, it may be assumed that the experimental group undertaken in this study.
Table: II, Analysis of Covariance on Basel Metabolic Rate Aerobic Exercise, Yoga and Control Group

|  | Aerobic <br> exercise <br> Group | Yogic <br> group | Control <br> Group | Source <br> of <br> Variance | Sum of <br> Squares | df | Mean <br> Square | F' <br> Ratio |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| PreTest <br> Mean | 2.11 | 2.06 | 2.32 | Between | 488912.462 | 2 | 244456.231 | 2.220 |
| S.D | 108.997 | 560.298 | 67.752 | Within | 3964865.538 | 36 | 110135.154 |  |
| PostTest <br> Mean | 2.55 | 2.18 | 2.32 | Between | 725827.846 | 2 | 362913.923 | $13.163^{*}$ |
| S.D | 270.192 | 58.792 | 79.082 | Within | 992578.462 | 36 | 27571.624 |  |
| Adj.Post- <br> TestMean | 2.75 | 2.31 | 2.22 | Between | 607082.256 | 2 | 303541.024 | $10.765^{*}$ |
|  |  |  |  | Within | 986883.256 | 35 | 28196.664 |  |

* Significance at 0.05 Levels. $\mathrm{F}_{0.05}(2,35)=3.25$. (or)Table value 3.25., Levels.

It was observed from that table -1that there is no significant difference in per test ( $\mathrm{F}=2.220,<3.25$ ) at 0.05 level of confidence level in observed, however training effects are clearly evident in post test ( $F=13.163>3,25$ ) at 0.05 level and in adjusted post test ( $\mathrm{F}=10.765>3.25$ at 0.05 level) respectively.

These results logically reflect the influence of aerobic exercise and yogic exercise increase the Basel metabolic rate although F ratios indicate overall increase the Basel metabolic rate, the real group wise exercise increase the Basel metabolic rate can be seen in the results of scheffe's post hoc test .

Table-II.b

| Means values |  | Mean difference |  |
| :--- | :--- | :--- | :--- |
| Aerobic group | Yogic group | Control group |  |
| 2.75 | 2.31 |  | 0.44 |
| 2.75 |  | 2.22 | 0.53 |
|  | 2.31 | 2.22 | 0.09 |

Table-II.b clearly indicates that all the aerobic, as well as control group showed significantly increase exercise reduced the calories daily activity in BMR than the control group, in which all the means of experimental group was found higher than that of the control group from such results, it may be assumed that the experimental group undertaken in this study

Table: III, Analysis of Covariance on Body Fat Aerobic Exercise Group Aerobic Exercise, Yoga and Control Group

|  | Aerobic <br> exercise <br> Group | Yogic <br> group | Control <br> Group | Source <br> of <br> Variance | Sum of <br> Squares | df | Mean <br> Square | F' <br> Ratio |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| PreTest <br> Mean | 31.1154 | 31.9923 | 30.1923 | Between | 21.065 | 2 | 10.532 | 2.984 |
| S.D | 2.440 | 2.0348 | 0.70292 | Within | 127.075 | 36 | 3.530 |  |
| PostTest <br> Mean | 28.530 | 30.584 | 30.1846 | Between | 30.825 | 2 | 15.413 | $4.859^{*}$ |
| S.D | 1.860 | 2.162 | 1.1739 | Within | 114.184 | 36 | 3.172 |  |
| Adj.Post- <br> TestMean | 28.521 | 30.002 | 30.777 | Between | 33.580 | 2 | 16.790 | $9.799^{*}$ |
|  |  |  | Within | 59.969 | 35 | 1.713 |  |  |

* Significance at 0.05 Levels. $\quad \mathrm{F}_{0.05}(2,35)=3.25$. (or)Table value 3.25.,

It was observed from that table -1that there is no significant difference in per test ( $\mathrm{F}=2.984,<3.25$ ) at 0.05 level of confidence level in observed, however training effects are clearly evident in post test ( $F=4.859>3,25$ ) at 0.05 level and in adjusted post test ( $\mathrm{F}=9.799>3.25$ at 0.05 level) respectively.

These results logically reflect the influence of aerobic exercise and yogic exercise reducing the body fat percentage although F ratios indicate over all reducing the body mass index, the real group wise reducing the body fat percentage can be seen in the results of scheffe's post hoc test .

Table-III.c

| Means values |  |  |  |  | Mean difference |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| Aerobic group | Yogic group | Control group |  |  |  |  |
| 28.521 | 30.002 |  | 1.481 |  |  |  |
| 28.521 |  | 30.77 | $2.25^{*}$ |  |  |  |
|  | 30.00 |  | 30.77 |  |  |  |

Table-III.c clearly indicates that all the aerobic, as well as control group showed significantly reduced the $\mathrm{BF} \%$ than the control group, in which all the means of experimental group was found higher than that of the control group from such results, it may be assumed that the experimental group undertaken in this study

Line Diagram showing the difference between Adjusted Mean Values of Body Mass Index, Basel Metabolic rate and body fat


## Discussions and Findings

The results of the study showed that there was significant reduction and selected dependent variables such as body mass index and body fat percentage due to the aerobic exercise when compared with control group. It was also observed that there was no significant reduction between aerobic exercise and yogic exercise. Hence, it is conclude that from the above literature and also from the result of the present study that a systematically well resigned aerobic exercise and yogic exercise programme are very necessary for health and physically fit citizen. This is may be due to the fact that aerobic exercise play vital role in the various body movements and also exercise muscle movement, both isometric as well as before wherever in the movement case of yogic exercise involved very less movement when compared with aerobic exercise .these findings were in According to the similar study report Guftar (2008) was to investigate the role of energy expenditure, basal metabolic rate and physical activity in the etiology of hypothalamic obesity. This was a cross a cross sectional study of three groups of children. Energy expenditure, rather than energy intake has a greater role in the development of obesity after exercise in reduction in Basel metabolic rate and physical activity, leading to a positive energy balance and weight gain despite an age appropriate calorie intake, may contribute to hypothalamic obesity.

## Conclusions

The result of study report that has significantly reduction on body mass index, and body fat percentage after three month of aerobic exercise training programme. Basel metabolic rate has significant increased exercise in burning capacity for calories reduce in aerobic exercise for three month period. There was no significant reduction in the performance of selected BMI, BMR and BF\% after three months yogic exercise training programme when compared with aerobic exercise as well as control group.

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## Will India be able to Outrace China?

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#### Abstract

: Making an in depth study and analysis of India vs. China economy seems to be a very hard task. Both India and China rank among the front runners of global economy and are among the world's most diverse nations. Both the countries were among the most ancient civilizations and their economies are influenced by a number of social, political, economic and other factors. The Chinese economy historically outpaces India's by just about every measure. China's fast-acting government implements new policies with blinding speed, making India's fractured political system appear sluggish and chaotic. Beijing's shiny new airport and wide freeways are models of modern development, contrasting sharply with the sagging infrastructure of New Delhi and Mumbai. However, a number of studies conducted in different parts of the world and also by the international agencies depict an optimistic picture of India. There are a number of research studies which clearly depict that India will surely outwit China in the race of economic expansion and growth over next few decades. These studies are based on the trends in the growth pattern of the two economies and their inherent structural weaknesses and strengths. The present research paper is based on the study conducted by Dr. William T. Wilson, Managing Director \& Chief Economist, Keystone India. "Within 25 years, India will become one of the world's largest economies. Her growth will be fueled by superior demographics and rising level of domestic investment whose power is accentuated though continued economic liberalization. By 2020 India will surpass China as the world's fastest growing major economy and in the process begin to change the world balance of power." - Dr. William T. Wilson, Managing Director \& Chief Economist, Keystone India


## Objectives:

The objectives of the present research paper are:
(a) To make a comparative study of the present economic and demographic parameters of Indian and Chinese economy.
(b) To make audience of the conference aware of the studies conducted by some international scholars and agencies depicting optimistic picture for Indian economy.
(c) To analyse various constraints which may have decelerating impact on the growth of the Indian economy.

Hypothesis: Considering the changing pattern of demographies in India and

China, it can be presumed that India will outwit China over next few decades.
Methodology:The present research is a descriptive research based on secondary data collected from the research studies of international agencies.
Scope of the Study:Considering the time and cost constraints, the present research is based on research findings of some international agencies.
Significance of the Study:The present study will benefit the research scholars and students in understating objectively how India can surpass Chinese economy over next few decades.
Limitations of the Study: The study is purely based on secondary data and since future is uncertain, the conclusions and findings of the research cannot be generalized. However, if the present trends in Indian and Chinese demography continue, India will surely surpass Chinese growth.

## Will India be able to Outrace China?

Making an in depth study and analysis of India vs. China economy seems to be a very hard task. Both India and China rank among the front runners of global economy and are among the world's most diverse nations. Both the countries were among the most ancient civilizations and their economies are influenced by a number of social, political, economic and other factors. However, if we try to properly understand the various economic and market trends and features of the countries, we can make a comparison between Indian and Chinese economy.

The tables given below compare India and China in present and two decades from now, i.e. in the year 2030:

China vs. India 2010 - Fast Facts:

|  | China | India |
| :--- | :--- | :--- |
| Size of Economy in Global Terms | $3^{\text {rd }}$ | $12^{\text {th }}$ |
| Global Position in Purchasing Power Parity | $2^{\text {nd }}$ | $4^{\text {th }}$ |
| Global ranking among fastest growing economies | $5^{\text {th }}$ | $2^{\text {nd }}$ |
| Per Capita Income (US\$) | 3180 | 1032 |
| World Per Capita Income Ranking | $104^{\text {th }}$ | $139^{\text {th }}$ |
| Number of working population (in million) | 250 | 500 |
| Population growth rate | $0.63 \%$ | $1.55 \%$ |
| Total population in global terms | $21 \%$ | $17.5 \%$ |
| Percentage of global trade | $8 \%$ | $1.5 \%$ |
| Global trade (US\$ billions in 2008) | 2561 | 437 |
| Length of coastline (in km) | 18000 | 7200 |
| Amount of usable arable land (in sq. km millions) | 0.64 | 1.45 |
| Available fresh water area (in sq. km.) | 3720 | 314400 |
| Total rail track (in km) | 86000 | 63140 |
| Total highway length (in km millions) | 1.43 | 0.07 |


| Total English speaking population (in millions) | 10 | 232 |
| :--- | :--- | :--- |

## China vs. India 2030 - Global Forecasts:

|  | China | India |
| :--- | :--- | :--- |
| Size of Economy in Global Terms | $2^{\text {nd }}$ | $4^{\text {4h }}$ |
| Global Position in Purchasing Power Parity | $2^{\text {nd }}$ | $3^{\text {rd }}$ |
| Global ranking among fastest growing economies | $20^{\text {th }}$ | $12^{\text {th }}$ |
| Per Capita Income (US\$) | 10700 | 8900 |
| World Per Capita Income Ranking | $80^{\text {th }}$ | $88^{\text {th }}$ |
| Number of working population (in million) | 175 | 600 |
| Population growth rate | $0.82 \%$ | $1.01 \%$ |
| Total population in global terms | $19 \%$ | $21.5 \%$ |
| Percentage of global trade | $8 \%$ | $5.5 \%$ |
| Global trade (US\$ billions in 2008) | 9824 | 4500 |
| Length of coastline (in km) | 18000 | 7200 |
| Amount of usable arable land (in sq. km millions) | 0.64 | 1.45 |
| Available fresh water area (in sq. km.) | 3720 | 314400 |
| Total rail track (in km) | 200000 | 130000 |
| Total highway length (in km millions) | 1.8 | 0.9 |
| Total English speaking population (in millions) | 10 | 250 |

First, forget the hype about both China and India. Keep in mind that despite all the talk of China or India's rising status, both China and India are still desperately poor countries with large disparities in incomes across each country. In China nearly half of the country's labor force remains in agriculture (about 60 percent in India). Also, despite all the talk about Indian software engineers and Nobel laureates and Chinese engineering whizzes, India has the largest number of illiterate people in the world and China also is burdened with a large number of rural poorly educated who will offer continued challenges for economic development. (India's illiteracy rate is nearly 40 percent and China's is nearly 10 percent according to World Bank statistics.) Of the total of 2.3 billion people in these two countries, nearly 1.5 billion earn less than US\$2 a day, according to World Bank calculations. The opportunities in both countries are substantial; the challenges are also large.

The Chinese economy historically outpaces India's by just about every measure. China's fast-acting government implements new policies with blinding speed, making India's fractured political system appear sluggish and chaotic. Beijing's shiny new airport and wide freeways are models of modern development, contrasting sharply with the sagging infrastructure of New Delhi and Mumbai. However, a number of studies conducted in different parts of the world and also by the international agencies depict an optimistic picture of India. There are a number of research studies which clearly depict that India will surely outwit China in the race of economic expansion and growth over next few decades.

These studies are based on the trends in the growth pattern of the two economies and their inherent structural weaknesses and strengths. The present research paper is based on the study conducted by Dr. William T. Wilson, Managing Director \& Chief Economist, Keystone India.
"Within 25 years, India will become one of the world's largest economies. Her growth will be fueled by superior demographics and rising level of domestic investment whose power is accentuated though continued economic liberalization. By 2020 India will surpass China as the world's fastest growing major economy and in the process begin to change the world balance of power."

- Dr. William T. Wilson, Managing Director \& Chief Economist, Keystone India

Dr. William T. Wilson's research findings are based on a number of assumptions and projections based on trends in the population, especially working population, rate of capital accumulation and total factor productivity.

As India begins to prepare itself for a second wave of growth in the aftermath of what has indeed proven to be a difficult financial crisis for Asia, questions are now being asked as to the extent of competition India really brings to global markets when measured up against China. The present study is based on three important parameters, viz. growth of labour force, capital accumulation and total factor productivity.
Growth in Labour Force: Despite spending twenty years behind China in the race for global trade, the demographics indicate strong support for India closing the gap. India is forecast to surpass China in total population by 2030. India's population is slated to rise by almost 350 million over the next quarter century, twice as fast as the United States, Western Europe and China combined. By 2050 India's population is expected to exceed China's by 200 million. India's urban population is projected to rise to 41 percent by 2030.


Source: LIN Population Division: Medium variant
The growth in India's working age population is expected to exceed its already rapid population growth until 2015. While China's working age population declines from 2020 to 2050, India's increases until at least 2045. China's current working age population dwarfs India's by 230 million, however, by 2050 India's working age population will exceed China's by the same amount. The experience
of Asia shows that the economic miracles in Japan and in the "Tiger Economies" of Southeast Asia and recently in China occurred at a similar stage of demographic transition where the share of working population grew sharply.

China, conversely, is aging faster than any other country in history. It is unique in that it is growing old before it has grown rich. Its one-child policy is largely responsible for this effect. Chinese officials state that 300 million births over the past 30 years were "averted" as a result of this policy. China's transition to an aging population is particularly abrupt, and a serious gender imbalance will only exacerbate the population decline starting in 2030.


Source: UN Population Division: Medium variant

## Capital Accumulation:

To match China's recent GDP growth rates, India would need to increase its investment to approximately 35 percent of GDP (holding everything else equal). According to Wilson, India is capable of achieving that rate of investment within a maximum of 10 years. According to Wilson, the growth in India's capital accumulation will be determined by the change in the role of private sector and aggregate savings which in turn depends upon the evolution of the dependency ratio. In other words, the rate of capital accumulation will flow directly from India's favorable demographics. According to the United Nations Population Database, India's dependency ratio will decline from a level of 60 percent in 2005 to 48 percent by 2025 before leveling off and finishing at 50 percent by 2050. China's dependency ratio, conversely, rises from a level of 41 percent in 2005 to 65 percent by 2050, a pattern similar to most developed nations.


Source: UIN Population Division: Medium variant
This sharp drop in India's dependency ratio will translate into a roughly equivalent percentage rise in private savings over the forecasting period. This effect is already in evidence. Assuming an initial aggregate savings rate of 25 percent of GDP for India (roughly current levels), aggregate savings would rise to 37 percent of GDP by 2025 before leveling off at 35 percent by 2050. Assuming further that India's borrowing from or lending to the rest of the world remains roughly unchanged during this period, this rising savings would allow an equivalent increase in domestic investment. Starting with an aggregate savings rate of 40 percent, China would experience a sharp fall in its savings rate (due to a sharp rise in its dependency ratio) after 2020. Its investment share of GDP is predicted to remain a robust 38 percent by 2020 before declining to 16 percent by 2050. China's capital stock continues increasing at twice the rate of India's over 20052010 but India's closes this gap and eventually surpasses China by about 2030.

## Total Factor Productivity Growth:

It is a nation's productivity level that ultimately determines its standard of living. Nations with higher productivity levels have higher real wages and per capita income and vice versa. Rapid growth in a nation's labor force and capital stock do not produce rising living standards unless the efficiency of labor and capital increase over time.

India's TFP growth averaged approximately 2.5 percent over the past two decades. This respectable growth was achieved with relatively modest economic and political reforms. The outlook for acceleration in India's TFP growth in the coming decade is very promising for a number of reasons. First, over the past few years there has been a significant acceleration in the pace of economic and political reforms. Reforms have gone from being crisis-driven during the early 90s to success-driven which makes it more likely that they will be sustained and not be subject to major reversals in the coming decade.

What little FDI that has reached India has had an overwhelming positive impact. The introduction of foreign competition in IT, business-process outsourcing and the automotive industry has prompted Indian companies to revamp their operations and boost productivity.

Moreover, India is likely to be a beneficiary of the developmental process due to its late start. Over the years, the technologies of information processing and dissemination have steadily improved, speeding up the diffusion of knowledge over time. India has raised the quality of its labour force over the decades by improving the level of its education. According to the 2001 Census India's literacy rate has risen from 18 percent in 1951 to almost 65 percent by the turn of the millennium. India has also become significantly more open to trade and foreign investment during the past decade. This suggests that the speed of productivity change in India over the next 20 years could be higher than any other instance of rapid economic growth over the last 200 years.

Rodrik, Subramanian and Trebbi (2004) suggest that India's level of TFP is currently between one-third and 40 percent of what it should be, creating the opportunity for significant acceleration if economic reforms proceed. While the literature on China's TFP growth is not as conclusive or nearly as comprehensive as that on India's TFP, Li (2003), using both national and provincial data, finds that China's growth in TFP has averaged about 3.4 percent in the post-reform years.

What used to be China's main economic driver - the provision of cheap labor to service global demand - is being whittled away. That goes hand in hand with natural resources. India possesses 800,000 square kilometers more usable arable land than China, and 10 times the natural fresh water resources. This has huge implications for the agricultural and textile industries. If India is smart, and manages these resources properly, it will begin to emerge as a highly competitive player in these global markets.

Much has been made of India's lack of infrastructure, and again, when held up against the current Chinese systems it looks ramshackle. A currently miserable 70,000 kilometers of highway (express routes) pales against China's 1.4 million kilometers. India has plans however to develop and invest significant amounts into building a national highway system, and these are currently well underway, as we reported in India Briefing "Investing In India's Public-Private Partnerships."1 This is expected to double India's available highways in length in the next five years. It should be noted that China was in similar terms in 1980. Thirty years ago, China itself had very little expressway, and most of its roads were poor quality. Today, popular routes like the Guangshen toll route between Guangzhou and Shenzhen are taken for granted, yet this was only opened in 1995, and was financed largely by a Hong Kong entrepreneur. India's own infrastructure development curve can be expected to follow a similar pattern of development over the next twenty years.

India's economic ascendancy during the first half of this century will bring with it many benefits to the aging Western economies. The growing location of R\&D facilities in India - in pharmaceuticals, telecommunications, high tech manufacturing and software - will provide Western companies a platform for cutting costs and raising productivity. India, however, will do more than just shift
the economic center of gravity, it will also alter the world's geopolitical balance as it becomes a military superpower. As a stable and mature democracy, India will become a strategic player in combating Islamic militancy and balancing China's growing economic and military power.

Conclusions and Findings: It can be concluded that if the above trends in the Indian and Chinese demography continue then India will surely outwit China in next two decades.

# Important Steps in Clinical Research in Physical Education on Health Related Physical Fitness with Sedentary People 

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## Introduction

The primary purpose of a physical activity program is to improve one's quality of life, aggravating an existing medical condition is counterproductive. To set up the most effective program, we need to evaluate health conditions and exercise goals. This article presents guidelines related to pre-participation health screening and risk stratification for individuals initiating a self-guided physical activity regimen or those entering primary or secondary prevention exercise programs. Exercise program professionals should review these documents, as well as revisions to them, when establishing program-specific policies for preparticipation health screening and medical clearance.

To aid in the development of a safe and effective exercise prescription and optimize safety during exercise testing, it is important to screen potential participants for risk factors and/or symptoms of various cardiovascular, pulmonary, and metabolic diseases, as well as conditions (e.g., pregnancy, orthopedic injury) that may be aggravated by exercise.

## Steps in Health Appraisal and Fitness Testing <br> STEP 1: Health Appraisal

I. Inform Consent

## Purpose

- Ethical considerations -A well-designed consent form provides the client with sufficient information to enable an informed decision about participation. It details the expectations of the client so that full participation is possible.
- Legal concerns -Although not a legal document, the use of a well-designed consent form provides written documentation that the client was made aware of the procedures, limitations, risks and discomforts, as well as the benefits of exercise.
- Safety
- Optimal Benefit-to-risk Ratio
- Contraindicated Exercise
- Risk Factor Identification
- Lifestyle interventions
- Participation in fitness testing in non-clinical facility
- Exercise prescription and programming
- Valid
- Cost-effective
- Time-efficient


## Limitations

- Does not provide legal immunity to a facility or individual in the event of injury to a client.
- Does provide evidence that the client was made aware of the purposes, procedures, and risks associated with the test or exercise program.
- Negligence, improper test administration, inadequate personnel qualifications, and insufficient safety procedures are expressly not covered by informed consent,
- Legal counsel should be sought during the development of the document.


## Content

- Purpose
- Procedures explained in lay terminology

2. Potential risks and discomforts
3. Expected benefits
4. To the participant
5. To society

- Responsibilities of the participant
- Provision of an opportunity to ask questions and have them answered
- Confidentiality of results
- Right of participant to refuse or withdraw from any aspect of the procedures
- Signatures
- Participant
- Test supervisor/administrator
- Guardian for those younger than 18 years of age
- Witness
- Dates of signatures


## Administration

The consent form should be presented to the client in a private, quiet setting. The order of activities associated with the completion of the document should be as follows:

- Private, quiet reading of the document
- Private, verbal explanation of the contents of the document with a verbally expressed opportunity to ask questions for which answers are provided
- Signing and dating the document
- Presentation of a copy of the signed document to the participant, for his or her keeping
II. Health Screening

Purpose

- Safety

Provides health and fitness professionals with information that can lead to
identification of individuals for whom exercise is contraindicated.

## - Risk factor identification

Many medical conditions increase the health risk associated with physical activity or exercise testing. Health screening allows the health /fitness professional to determine who may participate and who should be referred to a physician prior to participation in exercise testing or physical activity.*

- Exercise prescription and programming Information gathered allows health/fitness professional to develop specific exercise programs appropriate to the individual needs and goals of the client.


## Types

- General screening for participation in self-directed exercise

Individuals who choose to begin a self-directed exercise program should be advised, at a minimum, to complete a quick screening of health status using such tools as the PAR-Q.

- Medications
- Prescription (type and dosage)
- Over-the-counter (type and dosage)
- Family history of medical conditions
- Lifestyle considerations
- Nutritional habits
- Exercise habits
- Stress
- Smoking
- Alcohol consumption


## Administration

- Timing - Screening tools must be administered prior to the delivery of a fitness assessment or the initiation of an exercise program and reviewed by the fitness professional before any exercise testing/activity occurs. Contraindications to exercise testing or activity should stimulate referral to the appropriate health care professional.
- Setting - In order to solicit reliable information, the questionnaire should be completed in a quiet, private area. Review the responses with the client to confirm the accuracy of the information and to determine the health risk status


## STEP 2: Risk Stratification

## Risk Factors

Age: Men $>45$ years \& Women $>55$ or premature menopause without estrogen replacement therapy
Diagnosed Disease

- Cardiovascular disease
- Cardiac, peripherial vascular, or cerebrovascular disease
- Pulmonary disease
- Chronic obstuctive pulmonary disease, asthma, interstitial lung disease, or cystic fibrosis


## - Metabolic disease

- Diabetes mellitius (type I or II), thyroid disorders, renal or liver disease

Major Symptoms or Signs Suggestive of Cardiovascular and Pulmonary Disease
The following signs and symptoms must be interpreted with in the clinical context in which the appear since they are not all specific for metabolic, pulmonary, or cardiovascular disease.

1. Pain or discomfort in the chest, neck, jaw, arms, or other areas that may be due to myocardial ischemia (lack of adequate circulation)
2. Shortness of breath at rest, during daily activities, or with mild exertion
3. Dizziness or syncope (fainting)
4. Orthopnea (breathing discomfort when not in an upright position) or paroxysmal nocturnal dyspnea (interrupted breathing at night)
5. Ankle edema (swelling)
6. Palpitations (abnormal rapid beating of the heart) or tachycardia (rapid heart beat)
7. Intermittent claudication (cramping pain and weakness in legs, especially calves, during walking due to inadequate blood supply to muscles)
8. Known heart murmur (atypical heart sound indicating a structural or functional abnormality)
9. Unusual or unexplained fatigue: shortness of breath with usual activity

## Coronary Artery Disease Risk Factors

The following risk factors should not be viewed as an all-inclusive list.

## - Hypertension

- High blood pressure confirmed by measurement on at least two seperate occasions
- Systolic blood pressure: 140 mmHg or greater
- Diastolic blood pressure: 90 mmHg or greater
- Using Antihypertensive medication
- Hypercholesterolemia
- Low Density lipoprotein: > $130 \mathrm{mg} / \mathrm{dL}(3.4 \mathrm{mmmol} / \mathrm{L})$
- If low density lipoprotein is not available, use total cholesterol criteria instead:
- Total serum cholesterol: >200 mg/dl ( $5.2 \mathrm{mmol} / \mathrm{L}$ )
- High-density lipoprotein cholesterol: $<40 \mathrm{mg} / \mathrm{dl}(1.03 \mathrm{mmol} / \mathrm{L})$
- Using lipid-lower medication
- High serum HDL cholesterol (negative risk factor)
- >60 mg/dL ( $1.6 \mathrm{mmol} / \mathrm{L}$ )
- High serum HDL cholesterol decreases the risk of coronary artery desease
- Subtracts one risk factor from sum of positive risk factors above
- Impaired fasting glucose
- Fasting blood glucose: $100 \mathrm{mg} / \mathrm{dL}(5.6 \mathrm{mmol} / \mathrm{L})$ or greater confirmed by measurements on at least 2 seperate occasions
- Obesity
- Exercise professional should use clinical judgment when evaluating this risk factor
- Professional opinions vary regarding the most appropriate markers and thresholds for obesity
- Body Mass Index of $30 \mathrm{~kg} / \mathrm{m} 2$ or greater
- Waist Hip Ratio greater than 0.95 (men) and 0.86 (women)
- Waist girth greater than 102 cm (men) and 88 cm (women)
- Sedentary Lifestyle
- Not participating in a regular exercise program
- Not accumulating 30 minutes or more of moderate physical activity on most days of the week
- Family History
- Myocardial infarction, coronary revascularization, or sudden death - before 55 years of age in father or other male first degree relative (ie, brother or son)
- before 65 years of age in mother or other female first degree relative (ie, sister or daughter)


## ACSM Risk Stratification

- Low Risk
- Younger individuals
- men <45 years of age
- women <55 years of age
- Asymptomatic
- No more than one risk factor


## - Moderate Risk

- Older individuals
- Men >45 years of age
- Women >55 years of age
- or two or more risk factors
- High Risk
- One or more signs or symptoms of cardiovascular and pulmonary disease
- or cardiovascular, pulmonary or metabolic disease
- Cardiovascular disease
- Cardiac, peripheral vascular, or cerebrovascular disease
- Pulmonary disease
- Chronic obstructive pulmonary disease, asthma, interstitial lung disease, or cystic fibrosis
- Metabolic disease
- Diabetes mellitus (types I and II), thyroid disorders, real or liver disease


## ACSM Recommendations for Preparticipation Medical Exam, Exercise test and Physician Supervision

|  | MedicalExaminati <br> on |  | Preparticipation exercise <br> test |  | Physician <br> supervision |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Moderate | Vigoro <br> us | Moderate | Vigorous | Moderate | Vigoro <br> us |
|  | X | X | X | X | X | X |
| Moderate Risk | X | R | X | R | X | R |
| High Risk | R | R | R | R | R | R |

* $R=$ Required, $X=$ Not Required


## STEP 3: Test and Measurement

## Purpose

1. Education - A well-planned and implemented battery of fitness assessment provides information to current and potential clients about the various aspects of health-related fitness. The results of fitness assessment provide a client with information useful in making possible lifestyle decisions.
2. Exercise prescription - Data collected via appropriate fitness assessments assists the health/fitness instructor to develop safe, effective programs of exercise based on the individual client's current fitness status.
3. Evaluation of progress - Baseline and follow-up testing provides evidence of progression toward fitness goals.
4. Motivation - Fitness assessment provides information needed to develop reasonable, attainable goals. Progress toward, or attainment of, a goal is strong motivation for continued participation in an exercise program.
5. Risk stratification - Results of fitness assessment can sometimes detect the presence of risk factors, which may influence both the exercise prescription and subsequent assessment.

## Test Environment

- Privacy
- Room temperature $\left(21-23^{\circ} \mathrm{C}\right)$
- Cleanliness
- Silence
- Appropriate seating and writing surface
- Relaxed confidence of personnel
- Unrushed atmosphere


## Test Order

When a battery of fitness assessments is administered to a client in a single session, the following order of tests is recommended:

1. Resting measurements (e.g., height, weight, heart rate, blood pressure, blood analysis)
2. Body composition - Some methods of assessing body composition are sensitive to the hydration status. Because some tests of cardiorespiratory or muscular fitness may have an acute effect on hydration, it is inappropriate to conduct such assessments before the body composition assessment.
3. Cardiorespiratory fitness - Assessments of cardio respiratory fitness often use heart rate as a predictive measurement Assessing muscular fitness or flexibility can produce an increase in heart rate. The cardio respiratory assessment must therefore be conducted prior to any other assessment that may affect heart rate.
4. Muscular fitness - When assessing both muscular and cardio-respiratory fitness in the same day, muscular fitness should be assessed after cardio respiratory fitness. Strenuous assessments of cardio respiratory fitness should be followed by an appropriate recovery period before tests of muscular fitness are attempted.
5. Flexibility - Flexibility is most appropriately assessed when the body is fully warmed.

## Test Termination

Clearly written instructions and regular practice will help to ensure that an assessment is conducted in a manner that is both safe and provides valid, useful information.

## - Criteria for stopping a test

- Attainment of desired performance
- The fitness professional must be familiar with the testing procedures to ensure recognition of the desired endpoint of the assessment.


## - Client or equipment complications

- Signs and symptoms consistent with guidelines for test cessation
- Equipment failure. -Subject asks to stop.
- Procedures


## - Non-Life-threatening situations

- An active cool down should be completed.
- Life-threatening situations
- The client should be removed from the testing equipment, and the site's emergency plan should be put into operation.


## Interpretation of Results

- Data reduction - Equations used to predict a fitness score should be appropriate to both the tests conducted and the client,


## Normative data

- Selection: The norms against which results are compared should meet the following criteria:
- Appropriate to the test administered
- Appropriate to the age, gender, and history of the client
- Standard error of the estimate - The standard error of the estimate is an indication of the error of the estimate compared with the actual measurement of the variable. Knowledge of the standard error of the estimate associated with a test is critical to the appropriate interpretation of the results. Reports to clients should clearly indicate the error associated with the testing,
- Repeated assessment Methods - Follow-up assessment of any fitness component should use the same test, including procedures and protocols, as
that used during the original assessment. It is therefore essential to keep precise records of all assessments.
- Timing - Repeat testing should be conducted only after sufficient time for alteration in the fitness component is assessed. The fitness professional should therefore be aware of the time course needed for physiologic adaptations.
- Significance of any differences - Care should be taken when interpreting small changes in fitness scores. Often, such changes are within the error of estimate of the procedures used.

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# Role of Quantitative Methods in Business and Industry 

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## Introduction:

"Through and through the world is infested with quantity". To talk sense is to talk quantities. It is no use saying the nation is large....How large? It is no use saying radium is scarce.... How scarce? You can not evade quantity. You may fly to poetry and music, and quantity and number will face you in rhythms and your octaves.

Compiled From: World of Mathematics... J.R.Newman New York: Simon and Schuster 1956

The growing complexity and volatility of the business environment has made decision making very difficult. Decision makers can no longer afford to make decisions that are based solely on their experience and observation. Decisions need to be based on data that show relationships,indicate trends and show rates of change in the relevant variables.

Quantitative methods help managers to tackle the intricate and complex problems of business and industry. These methods can be used to deploy resources efficiently, project long-term capital requirements forecast demand and estimate customer preferences. Quantitative methods provide an analytical and objective approach to decision making.

Quantitative methods involve the use of numbers, symbols, mathematical expressions and other element of quantities and serve as supplements to the judgement and intuition of the decision makers.

Quantitative methods can also be described as techniques that provide the decision maker with systematic and powerful means of analysis, based on quantitative data that help in achieving predetermined goals.

Quantitative Methods can be considered as 'statistical' and 'programming techniques' that help decision makers in solving business related problems.
Statistical techniques are used
i) To conduct statistical inquiry related to a particular phenomenon.
ii) To explore possibilities of advertising campaigns for adjustment of production methods and as an aid to establish standards.
iii) To determine business cycle and help in forecasting future markets.etc.

Some commonly used Statistical techniques in Business Activities are as follows.
a. Various measures like averages, dispersion, skewness kurtosis, correlation are necessary to bring out the characteristics of the available data.
b. Time Series Analysis helps in isolating various components and also useful in forecasting and consequent planning.
c. Regression analysis establishes relationship between set of variables also for prediction.
d. Sampling Techniques are used in Auditing, and for conducting business and market surveys or for checking the accuracy of records.
e. Statistical Quality Control is used to find whether the manufactured goods conform to specifications. Sampling inspection in this connection is indispensable in any manufacturing concern.
f. For calculation of mortality rates Vital Statistics and Demography are useful.These rates and calculation of probabilities of death are used in Insurance sector for determination of premium rates.
g. Index Numbers constructed are useful to measure economy and planning future policies
h. Tests of significance based on various probability distributions are useful for testing of hypothesis in various areas.
i. Analysis of Variance Techniques , Factor Analysis,are some of the popular techniques.
j. Designs of Experiments are useful in Agriculture field.

Programming techniques means Operations Research techniques , which are used to find solution to problems related to business. Linear programming, game theory, simulation, network analysis, queuing theory are some of the programming techniques that develop mathematical models which relate the relevant variables in a situation to the outcome, and provide solution to problems in terms of the values of the variables involved.

Applications of a Programming Techniques in Industry.
Industrial management consists of four functional areas .
a) Production
b) Marketing
c) Personnel and
d) Finance.

In Production function various techniques used are as follows.

- Linear programming for Aggregate Planning .
- Integer programming for shop floor production scheduling.
- Network-based techniques for line balance and project management.
- Inventory control techniques for planning and producing raw material Replacement analysis for equipment replacement decision.
- Queueing theory for designing in-process buffer stock .

In Marketing function the techniques use are:
> Linear programming for product mix problem. .
$>$ Game theory for order bidding decision .

Distance network related techniques for shipping finished goods.
In Personnel function following techniques are used

* Linear programming for man power planning
* Queueing theory for determining the size of maintenance crews.
* Scheduling techniques for manpower Scheduling.

In Finance function the techniques used are
Integer programming for Capital Budgeting.
Linear programming for Break-Even analysis
Integer programming or Dynamic programming
for portfolio selection.

## Application in Public Sectors

In Airways : Simulation for simulating air traffic and runway design, Linear / Integer programming for cargo loading.
In Hospitals : Queueing theory for outpatient system design. Linear / Integer programming for nurse scheduling, duty doctor scheduling. Inventory control for procurement of medicines for Operation Theatre.
In Government : Goal programming for policy decision, Integer programming for budgeting.
In Postal System : Techniques related to vehicle scheduling, manpower planning and transfer policy can be used.
In Banks : Queueing theory for determining number of counters, Portfolio models for effective deployment of funds subject to government regulatios.
In Highways : Integer programming for programming for project selection and vendor selection ,simulation for traffic system design .
In Railways : Linear programming ,Integer programming for cargo loading ,Scheduling for railway traffic control, Queuing theory for determining number of platforms etc.

Linear Programming : It is a method of selecting an appropriate optimum combination of factors from a series of alternative which are interrelated and each subject to some constraints or restrictions .It involves the development of liner equation to obtain the best solution for the allocation problem. An allocation problem arise whenever there are number of activities to perform, but limitation an either the amount of resources or the way they can be spent prevent us from performing each separate activity in the most effective way conceivable. In such situation we wish to allot the available resource to the activities in a way that they will optimize the total effectiveness.

Integer Programming: It is an extension of linear programming with only integer values for the decision variable of the problem
Dynamic Programming: It is systematic complete enumeration techniques to
solve a problem optimum in an emerging the solution of its sub problems.
Distance related Network Techniques : It involves Transportation Problem,(TP). Shortest Path problem,(SP) Minimum Spanning Tree Problem (MSTP) and Traveling Salesman Problem.(TSP).
The objective of the TP is to find the optimum shipping schedule of a commodities from a set of source to a set of destination such that total cost of shipment is minimized.
The objective of SPP is to find the shortest path from a given destination mode in a distance network such that the total distance of travel is minimized .

The objective of MSTP is to find optimal connection all the nodes using some edges in a given distance network such that total length of edges is minimized.
The objective of TSP is to find a tour for the salesman such that the total distance / cost of the tour is minimized.
Scheduling: it is a the process of preparing calender for executing a set of jobs mostly in shop floors .
Queueing theory: It is a techniques to deal with probilistic situations where mathematical / empirical models fail to provide solution to real life problem .
Game theory: It is a technique to deal with uncertain situations related to management decision like bidding for tenders.
Goal programming: It is an extension of LP with multiple objectives (goals) in the objective function.
Replacement Analysis: It is a techniques to determining the economic life of an asset with the minimum total cost .Also it involves the method of selection the best option between individual replacement policy and group replacement policy such that total cost is minimum .
The methodology of Quantitative Methods involve following six steps .
a. Observing the organizational environment.
b. Defining the problems.
c. Constructing a model.
d. Data Collection.
e. Arriving at a solution and,
f. Preserving the solution.

## Advantage of Quantitative Methods.(QM)

1. QM provide analytical and objective approaches to decision making in place conventional approaches such as intuitive and subjective approaches..
2. QMs are applied in different areas of management for optimal allocation of resources in order to achieve organizations objectives .
3. QMs help in defining and developing the objectives such as whether the firm should focus on cost minimization or profit maximization in the long run.
4. QMs help in forecasting the sales and in estimating the production cost for a given level of production.
5. QMs helps in studying the population with the help of sample.
6. QMs help managers in taking effective decisions under uncertainty .

## Limitation of Quantitative Methods.

- QMs are used for developing mathematical models based on certain assumption, which may vary across different problem situation and necessary precautions have to be taken in this case, otherwise the result obtained may be worthless.
- Application of QMs is expensive as is requires specialized people for its implementation
- One can not completely depend on the solution arrived at may have certain pitfalls like inadequacy of data, selection of inappropriate sample etc.

Due to increasing complexity business environment, managers can no longer depend on their intuition and other subjective factors for efficient decision making. Use of Quantitative methods therefore has become imperative for taking effective decision based on the analysis of data.

## Suggessions:

At school level more applications of statistics should be covered. At HSC level concepts should be cleared and at graduation level various programming techniques with use of computer softwares should be recommended.

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#### Abstract

Even though nearly all educationally developed countries attained their current educational status by legislating free and compulsory education -- Britain did so in 1870 -- India has dithered and lagged behind in introducing such legislation, with grave consequences. Of the nearly 200 million children in the age group between 6 and 14 years, more than half do not complete eight years of elementary education; they either never enroll or they drop out of schools. Of those who do complete eight years of schooling, the achievement levels of a large percentage, in language and mathematics, is unacceptably low. It is no wonder that a majority of the excluded and non-achievers come from the most deprived sections of society -- Dalits, Other Backward Claases, tribals, women, Muslims and financially backward -- precisely those who are supposed to be empowered through education. With heightened political consciousness among the deprived and marginalised, never in the history of India has the demand for inclusive education been as fervent as today. Yet, even a cursory examination of the Act shows some glaring shortcomings. As a signatory to the United Nations Child Rights Convention, India has accepted the international definition of a child as someone under the age of 18 years. The Right of Children to Free and Compulsory Education Act, which came into force on Thursday, covers only children in the age group between 6 and 14, clearly excluding and violating the rights of the $0-6$ and 14 to 18 year olds. This problem can be traced to the 86 th Amendment and its Article 21A, which defines the age. It is imperative that the 86th Amendment should have been re-amended to correct this anomaly, but it was not done.

Many argue that the Act should have been put on hold till such a reamendment was passed, but that would be playing into the hands of elements who want neither the amendment nor the Act. Such elements do not want the State to invest in education and persuading Parliament to re-amend it at this stage, with the kind of majority required to do so, seems remote.

Having made education a fundamental right, the question that needs serious debate is whether the Act will help improve the situation in a substantial manner or not. To address that question, it needs to be recognised that the challenge of elementary education is to somehow find a way to deal with the elusive triangle of access, equity and quality. The Act needs to be critically evaluated from the viewpoint of this triangular challenge.

The basic aspect of access is the provision of a school in the proximity of a child, since there are still several areas in the country where such access is lacking. The Act envisages that each child must have access to a neighbourhood school within three years of the Act coming into force. The presence of a nearby school, however, does not guarantee that a child will have access to it. One of the key barriers, particularly for the poor and the deprived, is the issue of cost.


That is where one of the critical aspects of Article 21A comes into play,
namely, the State shall provide 'free' education. Normally, 'free' is interpreted as non-payment of fees by the parents of the child. But numerous studies have concluded that the fee constitutes only one of the components of educational expenditure. And since the landless, poor and socially deprived cannot meet the other expenses, it results in the non-participation of their children in education.

These other expenses differ from place to place, but the cost of uniforms, notebooks and textbooks are perhaps common. The bill defines free education to mean any fee, expense or expenditure that keeps a child from participating in education, and obliges the State to provide all these. This broader definition, with implications for higher expenditure by the State, appears to be a better way to meet the challenge of access in terms of costs, rather than providing a list of items that will be covered which are difficult to anticipate in different locations and in the future and hence cannot be exhaustive.

Sustained participation in schooling is, however, equally influenced by the quality of access. The high non-retention rates in spite of higher enrolments in recent years are a clear indication that concerns of quality cannot be postponed till access is guaranteed, as also by the increasing tendency to seek out questionable private schools perceiving their quality to be 'better'. An increasing number of parents, both urban and rural, despite great financial difficulties, are attracted to the option of purchasing education from profit-making private schools that seem to have external frills of quality and regular presence of teachers.

The Act tries to address the problem by invoking a minimum infrastructural quality in schools through a mandatory schedule which lays down minimum norms for availability of classrooms, libraries, teaching-learning materials, separate toilets for boys and girls, drinking water and playgrounds. The schedule also mandates a minimum pupil-teacher ratio, number of hours of teaching per week and for the year. The Act explicitly requires the pupil-teacher ratio to be maintained in each school, rather than as an average over a block or a district, which allows for a great deal of skewed-ness in the placement of teachers between towns and remote areas.

The most difficult part of the Act to implement will be the provision for appointing teachers, on the basis of national norms, to be determined by a national agency within five years of its notification. Given the extraordinary number of untrained teachers appointed in the last 15 years, state governments will have to completely overhaul teacher training mechanisms to put this provision in place, both in order to bring existing teachers under these norms, and ensure that new teachers are appointed only after they have been pre-trained to these norms. This could be a major factor in determining the future quality of government schools.

The Act makes an important departure in the definition of the term 'compulsory', as provided in Article 21A governing fundamental rights. The customary definition is to place the onus on parents to ensure that they admit their children in schools, and to provide for punishment of parents in case they fail to
do so. One argument in favour of this provision is that this should prevent parents from engaging their children in child labour.

The Act, however, takes a completely different view and squarely puts the compulsion on governments to provide for every child to complete eight years of compulsory schooling. This implies that if a child is on the streets, working in a shop, or is simply at home at a time when he/she ought to be in school, the responsibility is of the government and it is the government that ought to be punished. This has major implications regarding child labour. Now that it has been enacted, it will be illegal for a child to not be in school during school hours, which curbs all forms of child labour during those hours. However, the Act is silent on what the child should do after and before school hours. Similarly, it does not specify which person/agency will be legally culpable if a child is working and not in school.

This is where the legislation is at its weakest, in the matter of enforcement. It provides that in case of a complaint regarding the violation of any of its provisions, it will first go to the local authority. The problem is that the complaint will be decided upon by the very agency that is responsible for the purported violation. Though the Act does invoke the National Commission for the Protection of Child Rights and the state commissions as authorities to look into complaints, they are all distant from the sites of the complaint, normally a village.

The Act does not explicitly spell out the quantum of punishment for violations -- be it for denying admissions or violating the provisions regarding quality of access, teacher attendance and so on. For example, the Act explicitly says that admission cannot be denied for the lack of a birth certificate, transfer certificate or for seeking admission after the session has started. But who will monitor that? Will the local authorities hear the parents?

# Empowerment of Tribal Women with Special Reference of Irula's in Chengalpet 

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## Introduction

In India the post-independence period has seen many positive steps to improve the socio-economic status of women. Women themselves have become keenly aware of their rights and are spearheading across the country against all odds. This consciousness is largely due to an increase in women literacy although they have miles and miles to go, the most significant landmark in the journey is the historic $73^{\text {rd }}$ and $74^{\text {th }}$ constitution amendment acts, 1992 by the centre and its ratification by the states. Women's involvement in the economic and social development process in the country has remained comparatively neglected area which shows that the India society has hardly bothered to pay due attention to its women folks.

The women have now raised their voice against this oppression and they want due rights and $p$ in all walks of life. This is an age of equality and liberty. In this people don't accept any discrimination on any basis. Thus the women have raised their banner for seeking equality with men.

The women of today want a change in their status in the society. They do not to play a secondary role. The women constitute nearly $50 \%$ of the world population. Therefore, they want to play a positive and constructive role in the world. They want to contribute towards the economic, social and political development of the society. In order to assess the socio-economic impact on any society it is imperative to understand the gender role and its changing elements. Tribal communities lived in isolation away from civilization and preserved their culture uniqueness, but with the rapid development of transportation and communications and industrialization, it has become difficult for their tribal. Therefore, it needless to emphasize here that the status of women tribal society is required to be assessed but its changing perspective.

## Statement of the Problem

The statement of the problem is to analyze "the Empowerment of tribal women with special reference of irula's in Chengalpet".

## Objectives of the Study

An analysis of socio-economic condition, Economic stability, the Empowerment of women's social awareness, Educational opportunities, Environment reservation, cultural awareness, the revival of indigenous values.
> To examine the education and employment status of tribal women and measure the degree of occupational mobility among them;
> To analyze the status and role of women within the household economy as well as in society at large, and to assess the role of government in the development of tribal women
> To historically trace the growth and development of the case system in India;
> To study what extant the tribal women empowered in their quality of life.

## Hypotheses

- There is no relationship between age group and monthly income.
- There is no relationship between Educational qualification and monthly income
- There is no relationship between types of family and monthly income.
- There is no relationship between family size and monthly income.
- There is no relationship between monthly expenditure and monthly income
- There is no relationship between family standard level and age group.
- There is no relationship between marital status and monthly expenditure.
- There is no relationship between family size and monthly expenditure
- There is no relationship between type of family and monthly expenditure
- There is no relationship between family standard level and monthly income.


## Methodology

## Source of Data Collection\} <br> Primary Source of Data

The data was collected from women in the areas of Irula tribal women's welfare society in Chengalpet district during the period January to February 2008 using a interview schedule. The researcher personally interviews all the women who agreed to participate in the study. The tools used are interview schedule women are either illiterate or with elementary schooling, they could not fill up the interview schedule. Hence, the researcher herself filled the answer for all women respondents.

## The order of the question in the questionnaire is as follows:

1) The first section of the interview schedule captures demographic information like their age, education, community, type of family, family particulars.
2) The second section capture details about the structure of monthly income, types of work, house hold expenditure, assets, liabilities, mode of saving
3) The third section covers the details about health factors, at what age started to work, reason for joining job, women their ability to make own decision. Awareness of the acts, and welfare programmes implemented for tribal people in their area.

## Secondary Sources of Data

The secondary sources of data on the study include primary census data, net source, books and reports.

## Data Analysis and Interpretation

Using simple statistical methods such as classification, tabulation, graphs, percentage and ratios carefully processed. Then the data were meaningfully analyzed and interpreted.

## Statistical Tools

The investigator had adopted the following statistical tools like mean, standard error, chi-square, and correlation. Various charts, tests of significance, bar diagram were also used.

## Finding and Conclusion

Finding

The aim of the present study is to analyze tribal women in Chengalpet district. The main aim of the study was to find out the problems and prospects of women in Chengalpet. Hence respondents were selected and interviewed and findings of the study is given below

- 57 percent of the respondents belong to the age of below 40 and remaining 43 percent of the respondents belong to the above 40 age group.
- 100 percent of the respondents belong to Hindu religion and schedule tribe caste.
- 78 percent of the respondents are illiterate remaining 22 percent are studied in primary school Education.
- 27 percent of the respondents are living in the joint family remaining 73 percent are living in the nuclear family.
- 87 percent of the respondents are married this includes 22 percent of the respondents are widows also 16 percent are unmarried.
- 80 percent of the respondent's family size and medium and remaining 20 percent are having large family size.
- 72 percent of the respondents are living Pucca and semi-Pucca type of house and remaining 28 percent are living kutcha type of house.
- 82 percent of the respondents are getting monthly income of below Rs 2500 are remaining 18 percent are getting monthly income of more than Rs2500 groups.
- 37 percent of the respondents are working in agriculture land and head loaders and remaining 63 percentages are other coolies.
- 80 percent of the respondents are spending as monthly expenditure of below Rs1000 and remaining 20 percent are spending as monthly expenditure above Rs1000.
- 53 percent of the respondents are affected by anemia and back pain. 25 percent are affected by skin disease and head ache. And remaining 22 percent are affected by digestive and B.P.
- 35 percent of the respondents go to primary health centre for treatment and remaining 65 percent goes to government hospital for treatment.
- 84 percent of the respondents started their work at the age below 18 and remaining 57 percent are started their work at the age of above 18.
- 90 percentage of the respondents said that reason for work is economic backwardness and remaining 10 percent said due to family problems.
- 78 percent of the respondents are satisfied with their earnings. 22 percent are not satisfied with their earnings.
- 72 percent of the respondents are taking their own decision in all aspects. 28 percent of the respondents are not able to take their own decision.
- 42 percent of the respondents said there is no improvement whereas, 58 percent of the respondents are said that their quality of life is improved.
- 37 percent of the respondents are spending below 2 hours for cooking. Remaining 23 percent of the respondents are spending between 2-3 hours for cooking.
- 53 percent of the respondents are spending above 2 hours for childcare. Remaining 7 percent of the respondents are spending below 2 for childcare.
- 46 percent of the respondents are spending between 8-9 hours for their working hour. Remaining 14 percent of the respondents are spending between 6-7 hours for their job.
- 38 percent of the respondents are spending below 2 hours for their leisure time. Remaining 22 percent of the respondents are spending above 2 hours for their leisure time.
- 26 percent of the respondents are spending between 6-7 hours for their sleeping. Remaining 34 percent of the respondents are spending between $8-9$ hours for their sleeping time.
- 48 percent of the respondents are spending below 2 hours for traveling time. Remaining 12 percent of the respondents are spending between 2-3 hours for their traveling time.


## Conclusion

If we want to develop a comprehension about the gender relation in tribal women we shall have to go in the conceptuality of the tribal society. As empowerment is not limited to political decision or the decision relating to the local government. It is observed from the study that, nowadays quality of the women are improved and empowered, especially social political and economically. Most of the tribal women are come forward to work in the outside the forest. Hence they are getting more money and economical independence also. Our hypothesis is that empowerment should be multidimensional of the tribal. It should be observed in all walks of life, in the domain of gender relation. It is with this holistic perspective that we scan the history of gender relations at the national and local level.

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# Curriculum and Its Transaction: The Human Rights Perspective 

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In India, formal education is yet to reach the masses. In ancient times, the Gurukul system provided education. The Guru (Teacher) taught all the subjects himself, from Religion to Science, and Philosophy to Literature. Though India was administered by various rulers in their princely states, the way of life, the Thought and Religion, the Education System etc. were similar, in spite of the multiplicity of languages and dialects, thanks to the link language, Sanskrit. All the above mentioned aspects were drawn from the Vedas, the Upanishads, and other Vedic Scriptures. The Education System in India was such that it attracted even foreign students, foremost among them being Jesus Christ. Gautama Buddha took Indian knowledge to the rest of Asia. Bodhi Dharma set sails from the Malabar Coast to Okinawa in order to spread the Indian knowledge of Martial Arts. With the advent of foreign rule, Sanskrit lost its importance as the invaders began to impose their own Languages.

For a considerable period, Bharat was in total disarray, with the education system and the traditional systems of trade, arts and crafts either disrupted or totally destroyed. It was during this period that the caste system began to raise its ugly head. This lasted for nearly 500 years, and significantly for at least 300 years under the British Rule, till India became Independent in 1947. The Indian Education System, as we see it today, was introduced by the British. Lord Curzon and Lord Rippon were prominent among the Viceroys who advocated English Education for India. The Industrial Revolution and advances in Science and Technology gave a lot of material to be taught in Schools and Colleges. The Caste System too flourished, aided by the Apartheid-practicing British. Human rights violations were rampant. But none was reported, as Colonial Rule itself was a Human Rights Violation. In today's India, Human Rights Violation is more rampant in the field of education than anywhere else, as the victims are usually children under 14. Right to Education is guaranteed under the Constitution. The said right is further protected by procedural law. The International Convention for the Rights of the Child (CRC) led to the formation of the draft national policy for children. As per the convention, the child is defined as a person less than 18 years of age. The draft national policy is alleged to have drifted away from the convention. However, the Juvenile Justice (Care \& Protection) Act, 2000 makes up for this lapse to some extent, as it refers to the CRC. There were efforts to bring in reforms in the field of elementary education. The 93rd Amendment Bill (86th Amendment to the constitution) and The Free and Compulsory Education Bill, 2003 are some steps in this direction. Then came the Protection of Child

Rights Act of 2005. Now we have the Right to Education Act, 2009.
The duty or the responsibility towards any issue is addressed by the Legislature by enacting a Law. Whether the enacted law serves its intended purpose or not is never examined.

If the intended purpose is upliftment of the poor by educating poor and marginalized children, then the statue fails due to the following reasons:

- It leaves out children between 0 and 6 years of age from its ambit.
- It places the onus of creating conditions conducive to elementary education on parents. The statute terms it as the fundamental duty of the parents to send their children to school. This puts at rest the aspirations of orphans, children of illiterate, divorced and separated parents.
- The statute hints at parallel education.

The inadequacy of these statutes gives a lot of scope for NGOs, Support Groups and other social organisations to take up the task of "Educational Awareness" within the country, particularly among the under-privileged.

In India there are expensive private schools. There are different streams like the ICSC, CBSC, IB etc., in addition to SSC. These are available to only those who are privileged in some way or other. For the rest the only choice is second-grade education provided by untrained and under-paid teachers. They can be called Para-Teachers, similar to Para-Medics.

One of the reasons for the high drop-out rates in schools is physical and mental torture. Psychologists have established that corporal punishment is detrimental to children's growth and development.

Corporal Punishment and Verbal Abuse do violate their fundamental rights. A few states have enacted laws in this regard, in the absence of a comprehensive national law.

The National Education Policy, 1992 emphasizes the need for excluding corporal punishment from the Education System. In spite of this guideline, we see that several cases are registered against school teachers for violence, and even sexual abuse. The question arises: Do the children not deserve good teachers?

Teachers who have the content, communication skills, and health, apart from proper training in teaching methodology and child psychology need to be produced in the country.

When Education is commercialized by politicians, discipline, which is the keystone of educational institutions, will drain off and those who do not derive any benefit from such commercialization, consisting mainly of teachers, will lose interest. This will result in external tuitions, corporal punishment and even sexual harassment.

Trainability of those aspiring to become teachers is an important aspect which needs to be looked into at the time of admission into Training Colleges. School children deserve the right teacher for the right subject. Non-compliance or condonation of this requirement is in itself a violation of the child's fundamental rights. The government should acknowledge the fact that teaching is the noblest
of professions and teachers should be given the respect, reward and social status that they deserve.

## School Management:

Management of schools is an issue which seems to have been ignored. The HRD Ministry should take steps to standardize the management of schools within the country, whether aided or unaided, minority or majority.

Allowing the school management to administer schools as they please will create discontent among the staff. Ignoring seniority and efficiency, favoritismbased promotions, etc. will create conflict and ill-will, which will bring down the standards of the school and increase drop-out rate. The School Management is expected to provide clean, well ventilated class rooms, drinking water and clean toilets. Schools should also have well equipped laboratories, libraries with essential books, recreation centers and playgrounds. Well-stocked and serviced medicine chests and a team of Para-Medics trained in first-aid are a must. Any deficiency in these services is a violation of Human Rights.
Non-teaching staff
In quite a few of Mumbai schools, the teaching staff is at the mercy of nonteaching staff.

Drawal and disbursement of salaries, deductions, leave; Income Tax requirements, etc. are managed by non-teaching staff. Non-co-operation from non-teaching staff can create problems for the teaching staff as they are dedicated to teaching and expect the non-teaching staff to make available their salaries and fulfill their job-related requirements. Problems created in this respect eventually affect the students, thus denying them their fundamental rights.

## Human Rights violation by Maoists as well as Security forces.

The education of tens of thousands of India's most disadvantaged and marginalized children is being disrupted by the ongoing conflict between Naxalite insurgents and police and other security forces in the north-eastern states of Bihar and Jharkhand. Security forces are occupying government school buildings as bases for anti-Naxalite operations, sometimes only for few days but often for periods lasting years. Meanwhile, the Naxalites-a longstanding, pan-Indian Maoist revolutionary movement-are directly targeting and blowing up government schools, including those not used or occupied by security forces. The government's failure to promptly repair damaged schools enhances the lasting negative impact of these attacks.

The Naxalites claim that their attacks on schools cause no disruption to children's education because, they assert, they only target schools being used by state security forces in counter-Naxalite operations. Research done by NGOs suggests that many schools that have been attacked were not being used by the security forces at the time. Deficiencies in government monitoring make it difficult to get clear information on the extent and pattern of Naxalite attacks. On-theground investigations and a survey of public news sources suggest that at least 25 of the schools that were attacked in Bihar and Jharkhand during the year between November 2008 and October 2009 were undefended and not in use by

## security forces at the time.

The Naxalites appear to be attacking government schools because they are often the only government buildings in the remote rural areas where the Naxalites have their greatest influence and ease of movement. Moreover, undefended schools are a high-visibility, soft target. Attacking them garners media attention and increases fear and intimidation among local communities. While the Naxalites do not appear to be targeting students directly, attacks on schools that are not being used for a military purpose are violations of both international humanitarian law and the Indian criminal law.

A particularly shocking example of the flagrant lack of civilian authority can be seen in the police response to a public interest litigation case brought before the High Court of Jharkhand in late 2008 objecting to the police occupations. On November 21, 2008, the chief justice of the state's highest court ordered that all occupied schools be vacated by the second week in January 2009. However, as late as May and June of 2009, not only were the majority of the cited schools still occupied, but a number of educational facilities occupied by security forces that had not even been disclosed to the court.

During both partial and complete occupation of a school by security forces, there is an almost immediate exodus of some students from the school. Girls especially appear likely to drop out following a partial occupation of a school. Although some students may transfer to other schools in the area if their parents can cover the related costs, many students simply drop out of education all together. The increased rate of girl students dropping out is linked to either perceived or experienced instances of harassment by the security forces of girl students.

At one school the government had already approved the addition of a residential hostel so that 200 disadvantaged out-of-school girls could start attending the school, and had already started disbursing funding for scholarships for the girls. However, due to the presence of just 10 policemen in two classrooms at the school, parents were unwilling to send their daughters to enroll and benefit from this program.

The police occupation of school buildings can also block children's access to certain facilities. In some schools occupations caused students variously to lose access to a science practical room, to a hostel for students from remote geographic areas, to a water pump, to a playing field, to the kitchen that was supposed to provide a mid-day meal, and, not infrequently, to the latrines. Access to toilets is a globally recognized factor contributing to school attendance by girls.

## Conclusion

The situation varies in different parts of the country. Schools as per density of population need to be provided. Teacher-Student Ratio needs to be maintained. The Education system has to be supported by an Education Movement. Elementary Education needs to be standardized so that it is available to all the children in the country. Educational Institutions should open their doors to NGOs for inspection. The Government should heed the recommendations of

NGOs, Govt. Officials and Educationists. This shall be the new paradigm for upholding human rights in the Indian Education System.
References: "Sabotaged schooling" by Kyle Night Published in INEE BlogJuly 10

# Relationship of Height and Weight to the Performance of Volleyball Players 

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## An Abstract

The purpose of this study is to find out the relationship between Height, Weight and Performance of Volleyball Players which might be useful to decide for the promotion of volleyball skills and performance. The investigator adopted single group research design for this study. A sample of 200 volleyball Players were selected from 10 different colleges of Greater Mumbai. The Normative survey method has been used and different skill ability tests of AAHPERD have been measured. The analysis of data reveals that there is no relationship between Height, Weight and Volleyball performance as tested by AAHPERD the volleyball test on volleyball players. However, the study recommends that the findings of the present study may be helpful to be professional in order to improve the ability of the volleyball players. Finding of the present study may be helpful to set the position of player in different level and different game situations of the volleyball match.

Key Words: volleying, Serving, Passing, Set-up test.

## Introduction

The level of sports performance at top competitions is increasing day by day from school level competition to Olympic level. Height plays very important role in growth studies. It is equally important from sports angle too. Prediction of adult height at young age helps the child to choose those sports where height plays important role, Adult height of a genotype and secondly his/her environment in which he leaving. The purpose of this study is to find out the relationship between Height, Weight and Performance of Volleyball Players which might be useful to decide for the promotion of volleyball skills and performance. Age, height and weight are intricately related to performance in a specific sporting activity, Khosla T, McBroom VC.(1985). Prediction of adult height at young age helps the child to choose those sports where height plays important role, Adult height of a genotype and secondly his/her environment in which he leaving. Palao JM, Gutierrez D, Frideres JE. (2008)
The specific objectives of the present study are

- To find out the relationship between Height and Volleyball performance as measured by AAHPERD volleying, Serving, Passing and Set-up test.
- To find out the relationship between Weight and Volleyball performance as measured by AAHPERD volleying, Serving, Passing and Set-up test.
The null hypothesis sought to be tasted were:
$\mathrm{Ho}_{1}$ : There is no relationship between Height and Volleyball performance as
tested by AAHPERD volleying, Serving, Passing and Set-up test of college volleyball players.
$\mathrm{Ho}_{2}$ : There is no relationship between Weight and Volleyball performance as tested by AAHPERD volleying, Serving, Passing and Set-up test of college volleyball players.
The researcher was restricted this study because of its large scope. The study is delimited to the game of volleyball \& the selected college male volleyball players aged 16 to 18 years. The present study was conducted with limited resource and time. This, in turn, leads towards some shortcoming as follows :
- Controlling the day to day activities of the subjects participated in the study was not possible.
- Even the food habits of the subjects were not controllable.

The significance of the study is

- The result of present study would be helpful to the school teacher, and other professionals, in order to understand the importance of Height and Weight with the relation of volleyball performance.
- This study will help the coaches to see the usefulness of Height and Weight in improving the volleyball performance


## Method

## Procedures

Basically the study is survey in nature, under the heading of Descriptive research. The Normative survey method has been used and different skill ability tests have been measured. There is only single group for comparative study.

The Blueprint of the design is as under-
Volleyball performance
Test Items


## Subjects

200 Junior College Volleyball players ( $\mathrm{n}=200$ ) were selected randomly as sample from the 10 different colleges of Greater Mumbai. They were clinically fit.

## Selection of Variable

To carry out the research study researcher has chosen the selected variables are

* Standing Height
* Serving
* Body Weight
* Passing
* Volleying
* Set-up


## Criterion Measures:

After critical analysis of available literature following variables and volleyball skill tests were included in the study with its objective and unit of measuring.

| Standing Height | - C. Me | diometer ) |
| :---: | :---: | :---: |
| Body weight | Kg ( | Weighing machine) |
| Test | Objectives | Unit |
| Vollldying test | Volleyin $\sqrt{\text { Jability }}$ | No of real $\sqrt{\text { blleying (1 min) }}$ |
| Serving test | Serving ability | Points (10 trials) |
| Passing test | Passing ability | Points (20 trials) |
| Set-up test | Set-up ability | Points ( $10+10$ throws) |

## Statistical Procedure

The data were analyzed by using descriptive statistics and Pearson sample `t test. The analysis was done by SPSS 11.5 (a statistical package for social scince)

## Results

Analysis of data collected by researcher has been presented in this chapter. The data is presented and analyzed in the following manner.

In the analysis of Table 1 shows the comparison of mean and standard deviation of Height, Weight, Volleying, Serving, Passing and Setup Performance.

## Table 1

| Variable | Mean | Std. Deviation |
| :--- | :--- | :--- |
| Height | 171.99 | 15.20 |
| Weight | 50.83 | 4.73 |
| Volleying | 26.28 | 5.99 |
| Serving | 25.01 | 4.69 |
| Passing | 12.30 | 2.55 |
| Set-up | 11.88 | 2.07 |

Table 2 shows the Correlation of Height and volleying performance.

| SN. | Variables | Mean | SD |  |
| :--- | :--- | :--- | :--- | :---: |
| 1 | Height | 171.99 | 15.20 |  |
| 2 | Volleying | 26.28 | 5.99 | 0.118091 |

Table 3 shows the Correlation of Height and Serving performance.

| SN. | Variables | Mean | SD | Sig. <br> Correlation |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Height | 171.99 | 15.20 | 0.056 |
| 2 | Serving | 25.01 | 4.69 |  |

Table 4 shows the Correlation of Height and passing performance.

| SN. | Variables | Mean | SD | Sig. <br> Correlation |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Height | 171.99 | 15.20 | -0.07005 |
| 2 | Passing | 12.30 | 2.55 | -0.07 |

Table 5 shows the Correlation of Height and Set-up performance.

| SN. | Variables | Mean | SD | Sig. <br> Correlatio <br> n |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Height | 171.9 <br> 9 | 15.20 | -0.05575 |
| 2 | Set-up | 11.88 | 2.07 |  |

Table 6 shows the Correlation of Weight, and Volleying performance.

| SN. | Variables | Mean | SD | Sig. <br> Correlation |
| :--- | :--- | :--- | :--- | :--- |
| 1. | Weight | 50.83 | 4.73 |  |
| 2 | Volleying | 26.28 | 5.99 | 0.044252 |

Table 7 shows the Correlation of Weight and Serving performance

| SN. | Variables | Mean | SD | Sig. <br> Correlation |
| :--- | :--- | :--- | :--- | :--- |
| 1. | Weight | 50.83 | 4.73 | $-.160\left(^{*}\right)$ |
| 2 | Serving | 25.01 | 4.69 |  |

Table 8 shows the Correlation of Weight and passing performance

| SN. | Variables | Mean | SD | Sig. <br> Correlation |
| :--- | :--- | :--- | :--- | :--- |
| 1. | Weight | 50.83 | 4.73 |  |


| 2 | Passing | 12.30 | 2.55 | -0.03546 |
| :--- | :--- | :--- | :--- | :--- |

Table 9 shows the Correlation of Weight and Set-up performance

| SN. | Variables | Mean | SD | Sig. <br> Correlation |
| :--- | :--- | :--- | :--- | :--- |
| 1. | Weight | 50.83 | 4.73 |  |
| 2 | Set-up | 11.88 | 2.07 | $.157\left(^{*}\right)$ |

## Result of selected Variables:

* Correlation of Height and volleying performance:

It is seen from Table 2 that in case of Volleying performance as measured by AAHPERD volleying test the mean is 26.28 ( $\mathrm{SD}=5.99$ ) respectively, the mean of Height is 171.99(SD $=15.20)$ whereas, there is no correlation between Height and Volleying performance which is correlated at 0.118091

* Correlation of Height and Serving performance:

It is seen from Table 3 that in case of Serving performance as measured by AAHPERD Serving test the mean is 25.01 ( $\mathrm{SD}=4.69$ ) respectively, the mean of Height is 171.99( $\mathrm{SD}=15.20$ ) whereas, there is no correlation between Height and Serving performance which is correlated at 0.056 .

## $*$ Correlation of Height and passing performance:

It is seen from Table 4 that in case of Passing performance as measured by AAHPERD Passing test the mean is 12.30 ( $\mathrm{SD}=2.55$ ) respectively, the mean of Height is 171.99( $\mathrm{SD}=15.20$ ) whereas, there is no correlation between Height and Passing performance which is correlated at -0.07005 .

* Correlation of Height and Set-up performance:

It is seen from Table 5 that in case of Setup performance as measured by AAHPERD Setup test the mean is 11.88 ( $\mathrm{SD}=2.07$ ) respectively, whereas, the mean of Height is $171.99(S D=4.73)$ whereas, there is no correlation between Height and Set-up performance which is correlated at -0.05575 .

* Correlation of Weight, and Volleying performance:

It is seen from Table 6 that in case of Volleying performance as measured by AAHPERD volleying test the mean is 26.28 ( $\mathrm{SD}=5.99$ ) respectively, the mean of Weight is $50.83(S D=4.73)$ whereas, there is no correlation between Weight and Volleying performance which is correlated at 0.044252 .

## * Correlation of Weight and Serving performance:

It is seen from Table 7 that in case of Serving performance as measured by AAHPERD Serving test the mean is 25.01 ( $\mathrm{SD}=4.69$ ) respectively, the mean of Weight is $50.83(\mathrm{SD}=4.73)$ whereas, there is correlation between Weight and Setup performance at -.160 which is significantly correlated at $p<0.05$ level.

* Correlation of Weight and passing performance:

It is seen from Table 8 that in case of Passing performance as measured by AAHPERD Passing test the mean is $12.30(\mathrm{SD}=2.55)$ respectively, the mean of Weight is $50.83(S D=4.73)$ whereas, there is no correlation between Weight and

Passing performance which is correlated at -0.03546 .

* Correlation of Weight and Set-up performance:

It is seen from Table 9 that in case of Setup performance as measured by AAHPERD Setup test the mean is $11.88(S D=2.07)$ respectively, the mean of Weight is $50.83(\mathrm{SD}=4.73)$ whereas, there is correlation between Weight and Setup performance at .157 which is significantly correlated at $p<0.05$ level From the above analysis and interpretation of data, the result obtained from the present study the following findings are drown

- There is no correlation between Height with AAHPERD volleyball test as measured by Volleying, Serving, Passing and Set-up test.
- There is no correlation between Weight with AAHPERD volleyball test as measured by Volleying and Passing test.
- There is no correlation between Weight with AAHPERD volleyball test as measured by Serving and Set-up test.


## Discussion

So from the above findings it can be concluded that there is relationship between the Weight and volleyball performance.

- There is no Relationship between Weight and Volleyball performance as tested by AAHPERD serving test on the volleyball players thus the Null $\mathrm{H}_{01}$ is accepted.
- There is no Relationship between Weight and Volleyball performance as tested by AAHPERD set-up test on the elite volleyball players the Null $\mathrm{H}_{02}$ is accepted. Within the limitation of the present study the Researcher has drown the following conclusions -
- The Serving performance of volleyball has been assisted and correlated with the Weight of a player than the Height as tested by AAHPERD volleyball skill tests.
- The Set-up performance of volleyball has been assisted and correlated with the Weight of a player than the Height as tested by AAHPERD volleyball skill tests.


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# Kinematics of Penalty Stroke in Field of Hockey when it is executed at 90 Degree Stance Position 

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#### Abstract

Present study was designed to reveal the biomechanical quantities of penalty stroke when it is executed at 90 degree stance position. For the purpose of this study twelve intervarsity level male hockey players were recruited using stratified random sampling method. Their mean age, height and weight were 20 yrs (SD 0.89), 169.67 cm (SD 5.68) and 59.5 kg (SD 4.63), respectively. A target $(2 \times 2)$ which is marked by a scale was placed at each critical corners of the goal post to determine the ball accuracy position. The subjects were asked to perform 3 penalty strokes, each for all four critical corners of the goal post only best of three were considered for biomechanical analysis. To acquire 2-D data one high speed Canon Legria HF S10 camcorder were used. The players and ball movement during the penalty stroke execution were recorded. After that recorded video footages were downloaded, slashed to desired footages and edited for biomechanical analysis. The ball velocity, acceleration, accuracy, stride length, contact time and length, were digitized with the help of Silicon Coach Pro7 motion analysis software. The acquired data of the variables were subjected to descriptive statistical analysis. The results showed in the table-1 indicated that at right top corner subjects gained accuracy 52.08 percent with velocity $27.30 \mathrm{~ms}^{-1}$ which is higher than other three corners. Table-4 indicated when subjects increases velocity of the ball at $33.57 \mathrm{~ms}^{-1}$ their accuracy decreases at 29.17 percent.


Key Words: Field Hockey, penalty stroke, biomechanics, 90 degree stance.

## Introduction

Field hockey is a sport which demands lots of physical as well as mental efforts at the highest level of participation. When a team competes with their counterparts vigorously different kind of foul means of play came into existence. For every foul there is a penalty. One of a kind of penalty is penalty stroke which is awarded when an extreme foul means of play occurred. Both psychological and biomechanical parameters play a decisive role in the successful conversion of penalty stroke into a goal. If we talk about the biomechanical aspects of penalty stroke, with all movements of players and ball there are some mechanical aspects
are involved. Like speed, velocity, acceleration, stride length contact time and length etc.
As we know that hockey demands lots of physical as well as psychological qualities. Physical demands are governed by the laws of mechanics and it comes under biomechanical aspects of sports. In the game of hockey every team has one or two penalty stroke specialists. Conversion of a goal via penalty stroke is highly technical aspect. In a $12 \times 7$ feet goal which is guarded by a goal keeper it is difficult for penalty stroke specialist to score defeating the goal-keeper as demands quick deceiving qualities of the specialist alongwith speed of movement accuracy. Only four extreme corners of the goal- post are vacant when a penalty stroke is set into motion. Thus it is important for the striker to use proper skill and put the ball into the vacant space of the goal post to score a goal. As seen at the international matches every specialist uses their own specific stances when they are going to execute penalty stroke. Every movement is governed by the laws of biomechanics when some stances are resisted during execution. However, there is still a lack of scientific research done on penalty stroke execution in field hockey. Researcher unable to locate a single study related to penalty stroke execution in field hockey this is clearly indicated that area is neglected by researcher. It will be of great interest for sports scientists or hockey coaches to study the mechanics involved in the penalty stroke execution. This would provide information that will enhance the performance of penalty stroke specialists. Thus, the present study was purposed to analyze the biomechanical factors of 90 degree penalty stroke taking stances and observe the mechanical efficiency of this particular stance.

## Methodology

## Subjects

Twelve intervarsity level male hockey players were selected using stratified random sampling method for this study. The mean (Standard Deviation) age, height and weight of the selected subjects were 20 yrs (SD 0.89), 169.67 cm (SD 5.68 ) and 59.5 kg (SD 4.63), respectively.

## Tools and Equipments

Biomechanical analysis demands specific tools and equipments to capture and analyze the data. The experimental apparatus used in this research work were camcorder, tripod, measuring tap, lime power, markers, $2 \times 2$ feet marked scale targets, hockey sticks and hockey balls.

## Procedure for Data Collection

One high speed Canon Legria HF S10 camcorder was used to capture the biomechanical data. The camcorder was placed at 8 meters away from the penalty spot on left side of the goalpost. The height of the camcorder was adjusted as required 5 feet from the ground. At each critical corner of the goal post i.e. right top corner (RTC), left top corner (LTC), right ground corner (RGC), left ground corner (LGC), the specially designed $2 \times 2$ feet marked scale targets were placed to determine the ball accuracy position. After all setup the subjects
were asked to perform 3 penalty strokes each for all four corners of the goal post with 90 degree stance (DS) and their movement during the penalty stroke execution were recorded in the camcorder.

## Data Analysis

After recording all the video footages were downloaded into personal computer and slashed to desired footages that is only one (best of three) for each corner execution of penalty stroke and subjected to biomechanical analysis. The ball velocity, acceleration, accuracy, stride length, contact time and length, were taken as variables and digitized with the help of Silicon Coach Pro7 motion analysis software.

## Statistical Analysis

The acquired data on the selected biomechanical variables were sequentially arranged, tabulated and subjected to appropriate descriptive statistical analysis.

## Results and Discussions

It is an important aspect of any empirical endeavour to reach its inference point, thus the results and discussions are presented in the following tables to understand the worth of this empirical investigation.

## Table 1

Mean value of selected variables at Right Top Corner

|  | Accuracy <br> (Percent) | Acceleration <br> $\left(\mathrm{ms}^{-2}\right)$ | Velocity <br> $\left(\mathrm{ms}^{-1}\right)$ | Stride <br> Length <br> $(\mathrm{m})$ | Contact <br> Time <br> $(\mathrm{sec})$ | Contact <br> Length <br> $(\mathrm{m})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mean | 52.08 | 14.88 | 27.30 | 0.83 | 0.06 | 0.92 |
| SD | 27.86 | 3.89 | 5.38 | 0.10 | 0.02 | 0.19 |

Table 2
Mean value of selected variables at Right Ground Corner

|  | Accuracy <br> (Percent) | Acceleration <br> $\left(\mathrm{ms}^{-2}\right)$ | Velocity <br> $\left(\mathrm{ms}^{-1}\right)$ | Stride <br> Length <br> $(\mathrm{m})$ | Contact <br> Time <br> $(\mathrm{sec})$ | Contact <br> Length <br> $(\mathrm{m})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mean | 37.50 | 18.84 | 27.89 | 0.87 | 0.05 | 0.94 |
| SD | 25.00 | 3.80 | 5.84 | 0.20 | 0.01 | 0.09 |

Table 3
Mean value of selected variables at Left Top Corner

|  | Accuracy <br> $($ Percent $)$ | Acceleration <br> $\left(\mathrm{ms}^{-2}\right)$ | Velocity <br> $\left(\mathrm{ms}^{-1}\right)$ | Stride <br> Length <br> $(\mathrm{m})$ | Contact <br> Time <br> $(\mathrm{sec})$ | Contact <br> Length <br> $(\mathrm{m})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mean | 29.17 | 17.92 | 32.34 | 1.02 | 0.05 | 0.89 |
| SD | 23.27 | 1.56 | 8.09 | 0.15 | 0.01 | 0.15 |

Table 4
Mean value of selected variables at Left Ground Corner

|  | Accuracy <br> $($ Percent $)$ | Acceleration <br> $\left(\mathrm{ms}^{-2}\right)$ | Velocity <br> $\left(\mathrm{ms}^{-1}\right)$ | Stride <br> Length <br> $(\mathrm{m})$ | Contact <br> Time <br> $(\mathrm{sec})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | | Contact |
| :--- |
| Length |
| $(\mathrm{m})$ |


| Mean | 29.17 | 21.26 | 33.57 | 1.09 | 0.06 | 1.08 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| SD | 15.14 | 11.94 | 5.22 | 0.13 | 0.04 | 0.38 |

It is observed from above table-1 that at RTC at 90 DS position, subjects gained maximum accuracy 52.08 percent with velocity $27.30 \mathrm{~ms}^{-1}$, table-2 showed subjects gained accuracy 37.50 percent with velocity $27.88 \mathrm{~ms}^{-1}$ at RGC, similarly table-3 showed subjects gained accuracy 29.17 percent with velocity $32.34 \mathrm{~ms}^{-1}$ at LTC and according to table-4 subjects gained accuracy 29.17 percent with velocity $33.57 \mathrm{~ms}^{-1}$ at LGC of the goal post that falls on the left side of the goalkeeper.

## Conclusions

It is evident from the above shown table that out of four pre-set critical targets, RTC of the goalpost at the right side of the goalkeeper found to be most effective from the scoring point of view owning to the fact that the obtained accuracy at this angle has been recorded maximum ( 52.08 percent) which is a decisive factor for scoring goals through penalty stroke.

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# Investigation of Factors Predominant to the Skill Performance of Elite Volleyball Players 

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#### Abstract

The purpose of the study was to analyze the degree of relationship between volleyball serving ability from selected anthropometric measurements and motor fitness components. It was also designed to find out the combined contribution of the selected variables to volleyball skill performances beside developing the multiple regression equation for predicting volleyball serving ability. Twenty university male volleyball players from Annamalai University, in the age group of eighteen to twenty- three years were selected as participants for the purpose of the study. The following criterion variable namely Russell Lange Serving Test and the independent variables (standing height, weight, arm length, leg length, chest girth, biceps girth, wrist girth, thigh girth, calves girth, explosive power, agility, flexibility and speed) were considered in the study. In order to study the relationship among the selected variables, Pearson's product moment correlation was computed. Multiple correlations were computed to study the best combination of variable, which highly predicts the criterion variable. The results showed significant relationship of Russell Lange Serving Test performance with agility and leg length, The obtained $R^{2}$ value of 0.898 indicates that weight, flexibility and leg length are having $68 \%$ common variance with Russell Lange Serving Test. Out of thirteen independent variables, three of them were selected to derive the stepwise method of multiple regression equation..


Keywords: Prediction, Anthropometric, skill Test, Fitness Variables.

## Introduction:

Talent identification and its development has become an important area of research in sports. In performance sports due to rapidly increasing participation and performance density only person who have talent are having the chance of winning medal in an international competition. In prediction results are anticipated beforehand. Usually the anticipated results are not chance of guesses, but are based upon some known facts of relationship or carefully conceived beliefs (Clarke and Clarke,1972). Prediction is based on constant and vigil observation, experience and scientific analysis. It is the results of intelligent association of facts and discovering of patterns. The educationist and the economist predict certain things in the respective fields and a person involved very much in sports and games also predict the possible outcome in sports and games. Competent person
can do the predictions about the outcome of a match to be played in future. This can be well observed in the selection of players based on their performance to meet their future experiences in a play ground. Further a coach is exploiting the inherent abilities dormant in an individual player. The selection as well as finding out the constitution of a winning team in a challenging task for the selectors and the coaches. Traditionally the members of the team are selected on the basis of subjective observations of the performances of the players during the games. A coach or the selector watches the team, looking for the right types of physical powers that would enable easy shaping of a strong player and a successful team.

The identification of physical characteristics in a sport modality contributes to its success and enables to spot differences among athletes of different modalities, which is of great interest for both sport coaches and scientists. Sports performance is based in a complex and intricate diversity of variables, which include physical (general and specific conditions), psychological (personality and motivation) and body (body morphology, anthropometry and body composition) factors. The relationship between morphological variables and sports performance is the object of study of anthropometry and is an important element to be analyzed. Studies have pointed out the importance of physical characteristics for different sports such as volleyball (Duncan et al, 2006; Malousarisa et al, 2007), rugby (Gabbett, 2002), and basketball (Neto e César, 2005). Successful sporting performance at elite levels of competition often depends heavily on the explosive leg power of the athletes involved. In many individual sports such as Track and Field events, Gymnastics and Diving the ability to use high levels of strength as quickly and as explosively as possible is essential to perform at elite levels. Many team sports also require high levels of explosive power, such as Basketball, Volleyball, Netball and the Rugby and Football codes for success at elite levels of competition.

Data has been produced for many elite individual and team sport athletes for physical and physiological characteristics, including standing vertical jump scores, related to specific sports performance(Black. \& Roundy, 1994; Coutts, 1976; Latin, et al., 1994; Sawula, 1991). Volleyball is an intermittent sport that requires players to compete in frequent short bouts of high-intensity exercise, followed by periods of low-intensity activity. (Kunstlinger et al.,1987; Polglaze and., Dawson,. 1992.; Viitasalo et al., 1987.,).The high-intensity bouts of exercise, coupled with the total duration of the match ( $\sim 90$ minutes), requires players to have well-developed aerobic and anaerobic alactic (ATP-CP) energy systems. (Viitasalo et al .,1987; Hakkinen,1993). Considerable demands are also placed on the neuromuscular system during the various sprints, jumps (blocking and spiking), and high-intensity court movement that occurs repeatedly during competition.( Hakkinen K .,1993)., As a result, volleyball players require welldeveloped speed, agility, upper body and lower body muscle power, and maximal aerobic power (VO2max). Several studies have documented the physiological and anthropometric characteristics of senior volleyball players,( Fleck SJ, et al
.,1985;, Hascelik et al., 1989; Hosler et al.,1978), with the fitness of players typically increasing as the playing level is increased.( Smith et al., 1992.; Milder and Mayhew ,1991).

The changing nature of the game like volleyball demand the right type of physical abilities on the part of a player .The increasing trend in the professionalism and the acute demand for competitive sports have changed the complexion of the games which had been initially intended as a recreational activity of the villagers. Today with the advent of modern scientific equipments for training and selection of players, it has been now made possible to measure the fundamental performance characteristics which contribute to a player success. Prediction of skill level of players can be determined accurately to a great extent by taking a number of measures in various skills and parameters specific to a particular game or sport.. The prediction variables will be the different measures of the independent variables. The criterion variables or the dependent variable will be each player's ability in the particular game or event. Hence a subjective rating by a number of experts can be made as a measure of criterion variable for prediction of playing ability in a particular game event. Greater the general quality of speed, strength, power, endurance, flexibility and agility the more quickly will be the specific skill he learned and once learned the better will be the performance (Belay, 1987)
Methodology

## Subjects and Variables

Twenty male volleyball players from Annamalai university volunteered to take part in the study (age $21.6 \pm 1.3$ years, height $1.74 \pm 0.5 \mathrm{~m}$, mass $68.0 \pm 6.3$ kg ). The following criterion variables Russell Lange serving test and independent variables (standing height, weight, arm length, leg length, chest girth, biceps girth, wrist girth, thigh girth, calves girth, explosive power, agility, flexibility and speed) were considered in the study. The selected variables were assessed by using standard testing procedures. In order to study the relationship between the criterion and determinant variables and inter relationship between determinant variables were computed, using the method of Pearson's product moment correlation. Multiple correlations were computed to select the minimum number of variable that would provide the highest multiple co-efficient with the criterion and also to select them in the order of their contribution to the correlation. The level of significance was accepted at $P<0.05$.

## Results

The mean, standard deviation values and the inter correlation matrix among the criterion and the selected independent variables were presented in table-I
Table - I
Inter - Correlation Matrix

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1.000 |  |  |  |  |  |  |  |  |  |  |  |  |  |


| 2 | 0.351 | 1.000 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | -.024 | 0.784 | 1.000 |  |  |  |  |  |  |  |  |  |  |
| 4 | 0.375 | 0.624 | 0.628 | 1.000 |  |  |  |  |  |  |  |  |  |
| 5 | 0.479 | 0.897 | 0.820 | 0.761 | 1.000 |  |  |  |  |  |  |  |  |
| 6 | -.116 | 0.209 | 0.579 | 0.479 | 0.313 | 1.000 |  |  |  |  |  |  |  |
| 7 | -.377 | 0.403 | 0.642 | 0.461 | 0.319 | 0.550 | 1.000 |  |  |  |  |  |  |
| 8 | -.009 | 0.142 | 0.369 | 0.411 | 0.160 | 0.802 | 0.580 | 1.000 |  |  |  |  |  |
| 9 | -.386 | -.378 | -.068 | -.203 | -.460 | 0.561 | 0.086 | 0.464 | 1.000 |  |  |  |  |
| 10 | -.335 | 0.327 | 0.676 | 0.111 | 0.274 | 0.599 | 0.472 | 0.478 | 0.441 | 1.000 |  |  |  |
| 11 | 0.285 | -.042 | -.169 | -.365 | -.042 | 0.050 | -.111 | 0.034 | -.044 | 0.052 | 1.000 |  |  |
| 12 | -.470 | -.089 | 0.112 | -.176 | -.021 | -.415 | -.132 | -.645 | -.297 | 0.043 | -.487 | 1.000 |  |
| 13 | 0.077 | 0.449 | 0.605 | 0.277 | 0.370 | 0.770 | 0.472 | 0.656 | 0.537 | 0.748 | 0.306 | -.521 | 1.000 |
| 14 | -.283 | -.467 | -.448 | -.388 | -.467 | -.460 | -.593 | -.552 | 0.107 | -.400 | -.579 | 0.567 | -.619 |
| $\frac{\mathbf{X}}{\boldsymbol{X}}$ | 25.9 | 165.8 | 58.8 | 72.7 | 101.3 | 82.4 | 24.6 | 13.4 | 44.3 | 30.3 | 1.95 | 10.32 | 34.4 |
| $\mathbf{\sigma}$ | 6.58 | 4.83 | 8.67 | 2.25 | 7.43 | 5.20 | 2.01 | 1.05 | 2.56 | 2.92 | 0.17 | 0.46 | 5.28 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

1. Rusell Lange Service Test, 2. Height, 3.Weight, 4.Arm Length, 5. Leg Length, 6. Chest Girth, 7. Biceps Girth, 8. Wrist Girth, 9. Thigh Girth, 10. Calves Girth, 11.Explosive Power, 12. Agility, 13.Flexibility, 14. Speed.

The correlation coefficient of Russell Lange serving test with leg length and agility was significant at 0.05 level, since the obtained value of 0.479 and -0.470 respectively was greater than the required value of 0.444 for 18 degrees of freedom. The investigator further utilized multiple correlation to select the minimum number of independent variables that would provide the highest multiple co-efficient with a criterion variable and to select them in the order of priority to the correlation. In the process of computing multiple correlations, leg length was selected with the correlation coefficient of 0.479 and the common variance of $12 \%$ for the $R^{2}$ value of 0.229 with Russell Lange test .

The process was continued and a higher multiple correlation of 0.873 was obtained by selecting weight as the second variable for Russell Lange test. The obtained $R^{2}$ value of 0.762 denotes that leg length and weight are having $51 \%$ common variance with Russell Lange volleyball test. The process was further continued and a higher multiple correlation of 0.948 was obtained by selecting flexibility as the third variable for Russell Lange test. The obtained $R^{2}$ value of 0.898 denotes that leg length, weight and flexibility are having $68 \%$ common variance with Russell Lange volleyball test.

## Multiple Regression (Equation) Analysis

Multiple regression analysis is a statistical method used to predict the criterion variable from a group of selected independent variables. Stepwise method of multiple regression analysis was used to find out the best combination of variable, which highly predicts the criterion variable. As per the present study Russel Lange serving test was chosen as criterion variable and selected anthropometric measurements (Standing Height, Weight, Arm Length, Leg Length, Chest Girth, Biceps Girth, Wrist Girth, Thigh Girth and Calves Girth) and motor fitness components (Explosive Power, Agility, Flexibility and Speed) as independent variables. Out of the thirteen independent variables three variables were selected to derive multiple regression equation by obtaining a higher multiple correlation co-efficient. The process of multiple regression equation is presented in Table - II.

Table - II
Stepwise Method of Multiple Regression Equation for Russel Lange Serving Test

| Variable | B | SEB | Beta |
| :--- | :--- | :--- | :--- |
| Constant | -71.61 | 9.01 | - |
| Leg Length | 1.516 | 0.128 | 1.712 |
| Weight | -1.307 | 0.128 | -1.712 |
| Flexibility | 0.605 | 0.129 | 0.485 |

The results of the study indicate that the Russell Lange volleyball test performance can be predicted from leg length, weight, and flexibility of the players. The obtained multiple regression equation is as mentioned below.

Russell Lange serving test $=-71.61+1.516$ (Leg Length)

$$
\text { - } 1.307 \text { (Weight) }+0.605 \text { (Flexibility). }
$$

## Discussion

The correlation coefficient of Russell Lange serving test with leg length and agility was significant at 0.05 level, since the obtained value of 0.479 and 0.470 respectively was greater than the required value of 0.444 for 18 degrees of freedom. The obtained $\mathrm{R}^{2}$ value of 0.898 denotes that leg length, weight and flexibility are having $68 \%$ common variance with Russell Lange volleyball test. The multiple correlation of 0.948 was obtained by selecting leg length, weight and flexibility for Russell Lange. The process of statistical analysis was further continued to derive multiple regression equation due to high multiple correlation. Out of thirteen independent variables, three variables were selected to sketch out the multiple regression equation

Lower-body muscular power, agility, and estimated maximal aerobic power with increased playing level, and given the importance of these qualities to competitive performances (Gabbett and Georgieff, 2007) and the combination of bump-set, height, weight, and shoulder flexibility allowed correct classification of $78 \%$ of the starters and nonstarters (Thissen and Mayhew, 1991). Significant anthropometric and strength differences exist among playing positions in elite male volleyball players. In addition, these findings provide normative data for elite male volleyball players competing in specific individual playing positions. From a practical perspective, sport scientists and conditioning professionals should take the strength and anthropometric characteristics of volleyball players into account when designing individualized position-specific training programs. According to (Stamm and others ,2003) the anthropometric factor was significant in the performance of all the elements of the game, being most essential (71-83\%) for attack, block and feint.
Conclusions From the results obtained after analyzing the data, it was concluded that weight, leg length and flexibility have a significant relationship with Russell Lange serving test.

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# Leadership Styles and Conflict Resolution: An Exploratory Study of School Principals in Mumbai 

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## Introduction

Leadership of Principal is a critical factor in the success of any programme in school. Knowledge of leadership is a prime pre-requisite if an individual is to fulfill the principal ship role effectively. According to Keith Davis "Leadership is the ability to persuade others to seek defined objectives enthusiastically. It is the human factor, which binds a group together and motivates it towards goals."
Conflict is a fact of life. Human beings are forced with it in all walks of life in politics and business. Principals of schools confront conflicting situation of various kinds like conflict between his/her and head of department and between him/her and subordinate teachers. Conflict is a process in which an effort is purposefully made by one person or unit to block another that results in frustrating the attainment of the other's goals or furthering of his or her interests.

## Objectives of the Study

(1) To ascertain the leadership styles in Government schools adopted by the Principals.
(2) To study self-perception of Principals and compare it with the perception of teachers regarding the leadership styles of Principals.
(3) To determine the levels of conflict among teachers and Principals of Government schools in Mumbai.
(4) To investigate the conflict resolution techniques used by the Principals of Government schools in Mumbai.
(5) To determine the relationship between leadership styles and conflict resolution techniques adopted by the Principals in Government schools in Mumbai
(6) To identify a suitable leadership style for conflict resolution by the Principals in Government schools.

## Hypothesis:

I (1) There is no significant difference between the self-perception of Principals and perception of teachers regarding the leadership styles of Principals.
(2) There is no significant relationship between leadership styles and conflict resolution techniques.

## Tools of the Study

(1) Leadership Description Questionnaire LDQ (self) and LDQ (Others) have been developed by the investigator. The questionnaire measures five different styles viz. Democratic, Autocratic, Laissez-Faire, Practical and Team management. This questionnaire consists 64 items. These items have been divided in two dimensions at first i.e. 'Concern for Production' and 'Concern for People'.

The classification of leadership styles is based on Blakes and Mounton's Managerial grid who set out managerial styles of dimensions of Concern for Production and Concern for People in a framework, i.e. the grid, composed of horizontal and vertical axes. The grid shows the two dimensions are related, and establishes a uniform languages and frame for communication about behavioural issues.

## Major Findings of the Study

1. Teachers feel that Principals 'oftenly' have 'Concern for Production' and 'Concern for People' in the schools. They are task oriented, apply pressure for productive output and maintain performance standards. They also show mutual trust, respect and warmth in the relationship with the teachers.
2. Mostly Principals are applying 'Practical' style of leadership. No one is applying democratic and absolutely autocratic style of leadership. This has been perceived by the teachers.
3. Principals consider themselves task oriented and people oriented, as they have been rated high on both the dimensions of leadership.
4. There is significant difference between the perception of Principals and teachers regarding the 'Concern for Production' and 'Concern for People' dimension of leadership.
5. Teachers feel that intra-personal and inter-personal conflict occur 'oftenly' while intra-group conflict occurs 'occasionally'. Again inter-group and intra organizational conflict occur 'oftenly' in the school.
6. Principals feel that intra-personal, inter-personal and inter-group conflict occur 'oftenly' and intra-group 'occasionally'. But intra-organizational conflict 'always' arises in the school.
7. Teachers feel that the Principals apply 'Accommodation', 'Compromising', 'Competitive' and 'Collaboration' techniques of conflict resolution 'oftenly' while the ' Avoidance' technique is 'occasionally' applied.
8. Principals feel that they are 'always' applying 'Accommodation' and 'Compromising' techniques while Competitive and Collaboration are 'oftenly' applied. 'Avoidance' may be applied when there is scope for it.
9. There is significant relationship between the 'Concern for Production' dimension of leadership and four techniques of conflict resolution viz. Accommodation, Compromising, Competitive and Collaboration while negligible relationship with 'Avoidance' as perceived by the teachers. The same situation is with the 'Concern for People' dimension of leadership.
10. The 'Practical' or 'Middle-of-the-road' technique of leadership is found as the best technique to resolve conflict as most of the Principals are coming in this category or around it in both the cases i.e. as perceived by the teachers and by the Principals themselves.

## Implication and Usefulness of Study

1. The findings of the study may be used by the Principals to improve their managerial and administrative skills particularly in the context of leadership
styles.
2. Accommodation, Compromising, Competitive and Collaboration techniques of resolving conflict may be applied by the Principals to resolve conflicts.
3. Avoidance' technique should not be used by the Principals to resolve conflict as avoidance of conflict may lead a Principal to run the risk of reducing the total creativity of his staff.

## Suggestions for Further Research

1. Studies may be conducted on the critical areas like how to develop leaders, how to help them to become effective, and how to change the style if they are not conducive to the effectiveness of the school.
2. A study on the functionality and dysfunctionality of leadership styles of Principals may be conducted at school level.
3. To derive a more comprehensive and systematic frame of organizational behavior, studies are needed along with leadership, organizational clime, conflict related issues, decision-making and group dynamics.
4. Some more studies may be conducted on conflict resolution, levels of conflict and sources of conflict.

Dr. N.S. Poonawala: Research Guide, JJT University, Jhunjhunu, Rajasthan,

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# Integrating Sports Activity and Academic Achievement an Reflected Approach 

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#### Abstract

Academic pursuit have been part of the physical education curriculum with intend to preparing learner to active in variety of contextual task management in sports and games, because most of the sports contextual performance require physical and mental penetration, that make better students behavioural self management and greater academic achievement and more probably research much has linked exercises with dramatic improvement in behavior compliance (connon, 1983) (wendt, 2000).

The quality of physical education and academic achievements are depend upon the student participation from moderate to vigorous physical activity such practices can integrate not only the academic enhancement but that can provide proactive strategies to motivate student to improve the physical and social benefit and decrease risk factor for chronic disease and improve health status.


The following distinct area are largely considered on the major components specially the relationship between physical education and academic achievements such as
(a) Motivational strategies
(b) Physical activity and cognitive performance
(c) Physical activity and academic achievement

The main thrust of the article is to determine the importance of physical education and academic perceptions not only to improve the academic performance but exercise improves the positives the positive effect on the entire student's population by reducing oppositional behavior during the learning process.

## Introduction

## Motivational Strategy:

The physical education curriculum has intend to preparing learner to been active in variety of task measurement in sport and game because most of the physical education programme are depend upon environment condition of the learners and its effect on the positive attitude of the individual therefore the learner can change their personal attributes therefore positive environment which is healthy influenced adapted within instructional and climate provide an important source of competence information from which children can, learn to enjoy movement expenses as well as feel better about their competencies.
Motivation climates can influence the learner goals as well as their perception attitude behavior and future engaged in activity Anes 1992a-1992b. Martain radsill
\& hartie 2009.
It is also the leaner can increase the level of their confidence and promote perception of competence and achievement motivation, work by Hartor (1978, 1982-1988) supported the idea that one participation of competence better predicate future motivation
The perception of physical competence and desire to achieve competence is driven by feeling of pleasure and efficiency that result from successful mastery skills

## Target motivational challenge

Target the motivational environment the mastery and performance as these relate to the target structure frame work presented by Epstein (1989) teacher can begain to realize the difference that these two opposing climates present and the potential impact on student motivational level. Ames, 1992 there major structural features of the performance, climate
(1) Task regardless of differing student capabilities.
(2) Teacher centered and engaged the student in activity.
(3) Social comparisons.
(4) Homogenous group according to skill level.
(5) Student performance out come.

When these perform task make children more actively involve certainly the children can promote. Cooperative learning and poor interaction in different perception of performance task.

## Physical activity and cognitive performance:

The quantity of physical activity found that cognitive performance impired after acute boute of physical activity of specific duration Tomporowski, (2003) The cognitive performance of children are depend upon the various performance on concentration test which improved significantly after acute bouts of activity that is scheduling time for physical activity does met hinder academic performance and that participation in bout of vigorous pressure physical activity may actually unique academic performance.
The physical activity has met only the improved the cognitive behavior but it also improved physical fitness decreased risk for chronic disease the physical education participation has number better benefits like health status act social interview among the children as well as improved mood and increased the involvement of extra curricular activities.

Further it is also important that children and people of colour have documented health disparity are therefore a greatest risk for poor health and physical in activity and it is effect of low academic performance, large involvement of the performance are need name, healthcare and adept the positive attitude and promoting physical and mental task in order achievement to best performance, the effectiveness physical education activity definaling received enormous support from health organization, and school to achieves the broader school grade.

## Physical activity and academic achievement

The insight of physical education has depended upon the quality of physical
education and recognize. its potential to help children and adolescent achieve the healthy goals.
The physical education is an important component in the school curriculum, because the primary sources is that today more than ever school are accountable for producing academic achievement in order meet to umpire children achievement its contribute to broader school goal.
The effect quality of physical education may determining an academic achievement is complex and require control over many extraneous variables. The following variables to achieving the standard of school children like - grades, standardized achievement test - concentration test exam scores by subject and is in flue rend beg many factors so such factor are influenced by (1) teacher curriculum previous learning (2) Identified literature review (3) physical education is positively selected to increased academic performance.
Allocating time for quality physical education does not negatively influence academic achievement. The same health academic performance are conducting the various type of physical work capacity among student who were randomly assigned to 3 weeks of fitness skill or regular physical education programme the difference between time academic group perform and fitness groups may be perform differ in spite our four time longer participation in physical education.

## Conclusion

The physical education has impact encermens support not only the children academic perform but it is largely effect on health organization and intervention in school physical education as broader goal.

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# Effect of Resistance Training on Explosive Strength and Strength Endurance among Pre Pubescent Pubescent and Post-Pubescent Males 

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#### Abstract

: The purpose of the study was to find out the effect of resistance training on explosive strength and strength endurance among pre-pubescent, pubescent and post-pubescent males. For this study, forty-five men students were selected randomly as subjects and divided into three groups as pre-pubescent, pubescent and post-pubescent. Test namely strength and strength endurance were tested at the beginning and end of $12^{\text {th }}$ week experimental treatment. The collected data was statistically analyzed by using dependent and independent ' t ' test. It was found that there was a significant difference of explosive strength and strength endurance among pre-pubescent, pubescent and post-pubescent males.


Key Words: Resistance training, explosive strength and strength endurance.

## Introduction

As youth sports become increasingly popular, athletes and their parents are looking for the best ways to gain a competitive edge. One topic that has been highly debated for the past few decades has been whether or not children and adolescents should participate in strength training programs. Since muscular strength and power are required for success in many sports, it is attractive to assume that stronger and more powerful young athletes will perform better. Despite the belief that strength training was dangerous or ineffective for children, the safety and effectiveness of such programs are now well documented ${ }^{1,2,6}$.

Strength training, or resistance training, is a form of physical conditioning used to increase the ability to resist force. By increasing muscle strength, strength training can improve sports performance in young athletes. Different types of exercises are used in strength training in young athletes, including weight machines, free weights, and exercises which use a body's own resistance. By using different combinations of exercise repetitions, young athletes can achieve increases in strength. Strength training with young athletes is a common practice in sports like handball, basketball, and other team sports in which size and strength are desirable.

Researches conducted over past ten to fifteen years clearly demonstrate that children and adolescents may benefit from strength training activities. The qualified acceptance of youth strength training by medical and
fitness organizations is becoming universal. In addition to increasing muscular strength and muscular power, regular participation in a youth strength training program has the potential to positively influence cardio-respiratory fitness, body composition, blood lipids, bone mineral density and motor performance skills ${ }^{4}$. The mechanisms allowing strength changes in children and adolescents are usually accomplished with little increases in muscle size, and more with improved motor skill coordination, increased motor unit activation and other neurological adaptations. Also, regular strength training usually results in lower total body fat and higher fat-free mass ${ }^{6}$. Motor performance is most often measured in a variety of gross motor tasks witch requires abilities such as speed, balance, flexibility, explosive strength and local muscular endurance, while muscular strength is traditionally measured by static dynamometric tests such as gripping, pulling and pushing ${ }^{5,8}$.

Resistance training is not just for people who are athletes, want to build or tone muscle, or are using resistance training to achieve a better looking body. The present study was designed 1) to determine the effects of resistance training on explosive strength 2) to determine the effects of resistance training on strength endurance among pre-pubescent, pubescent and post-pubescent males.

## methodology

To achieve the purpose of this study, forty-five men students were selected randomly as subjects and divided into three groups as pre-pubescent, pubescent and post-pubescent. The subjects were divided into three groups as prepubescent (Pre-pub), pubescent (Pub) and post-pubescent (Post-Pub) of fifteen subjects each.

Pre-pubescent, pubescent and post-pubescent groups underwent resistance training for 12 weeks, 3 sessions per week. All the subjects were tested on selected variables prior to and immediately after the training period. Explosive strength was measured by vertical jump test and strength endurance was measured by pull-ups test.

## Analysis of Data

The collected data was statistically analyzed by using dependent and independent ' t ' test. It was found that there was a significant difference of explosive strength and strength endurance among pre-pubescent, pubescent and post-pubescent males. In all cases the criterion for statistical significance was set at 0.05 level of confidence ( $\mathrm{P}<0.05$ ).
TABLE I
Mean, Standard Deviation and 'T' Ratio on Explosive Strength and Strength Endurance for Pre and Post Test of Pre Pubescent, Pubescent and Post Pubescent Males

| Variables | Groups | Mean |  | S.D | DM | 't'- <br> ratio |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Explosive <br> Strength | Pre <br> Group | Pubescent | Pre-test | 19.53 | 2.8 | 3.33 |
|  | $15.81^{*}$ |  |  |  |  |  |


|  | Pubescent Group | Pre-test | 27.40 | 1.12 | 7.40 | 13.89* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Post-test | 34.80 | 1.89 |  |  |
|  | Post PubescentGroup | Pre-test | 34.13 | 5.93 | 10.46 | 44.28* |
|  |  | Post-test | 44.60 | 5.74 |  |  |
| Strength Endurance | Pre Pubescent | Pre-test | 1.86 | 0.83 | 1.80 | 12.43* |
|  | Group | Post-test | 3.60 | 0.61 |  |  |
|  | Pubescent Group | Pre-test | 4.46 | 0.83 | 4.4 | 16.14* |
|  |  | Post-test | 8.86 | 1.59 |  |  |
|  | Post Pubescent | Pre-test | 4.93 | 1.09 | 6.33 | 15.89* |
|  | Group | Post-test | 11.26 | 2.25 |  |  |

*Significant at 0.05 level
The table value required for significant for df 14 is 2.14.
Discussions
The obtained dependent t-ratio values were higher than the table value 2.14 with df 14 required for significance at 0.05 level. It indicates that there were significant differences between the pre test and posttest means of pre-pubescent, pubescent and post-pubescent groups on explosive strength and strength endurance.
TABLE II
Comparison of Mean Gain on Explosive Strength and Strength Endurance between Paired Means among Pre Pubescent, Pubescent and Post Pubescent Males

| Variables | Groups | Mean | S.D | SE | t-ratio |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Explosive Strength | Pre <br> Pubescent | 3.33 | 0.81 | 0.21 | 7.26* |
|  | Pubescent | 7.40 | 2.06 | 0.53 |  |
|  | Pre Pubescent | 3.33 | 0.81 | 0.21 | 23.76* |
|  | Post <br> Pubescent | 10.46 | 0.91 | 0.23 |  |
|  | Pubescent | 7.40 | 2.06 | 0.53 | 5.36* |
|  | Post <br> Pubescent | 10.46 | 0.91 | 0.23 |  |
| Strength Endurance | Pre Pubescent | 1.80 | 0.56 | 0.14 | 9.62* |
|  | Pubescent | 4.4 | 1.05 | 0.27 |  |
|  | Pre <br> Pubescent | 1.80 | 0.56 | 0.14 | 11.52* |
|  | Post <br> Pubescent | 6.33 | 1.54 | 0.39 |  |
|  | Pubescent | 4.4 | 1.05 | 0.27 | 4.10* |
|  | Post <br> Pubescent | 6.33 | 10.54 | 0.39 |  |

*Significant at 0.05 level
The table value required for significance for df 28 is 2.05
Discussions
The obtained mean gain method t-ratio values were higher than the table value 2.05 with df 28 required for significance at 0.05 level. It indicates that there were significant differences between the pre test and posttest means of pre-pubescent, pubescent and post-pubescent groups on explosive strength and strength endurance.

## Conclusions

In the present investigation, as a result of resistance training programme the following improvements occurred on explosive strength and strength endurance.

Resistance training methodology helped to improve the explosive strength and strength endurance.
$\checkmark \quad$ For improving the selected variables, resistance training was better for all the groups.

After twelve weeks of resistance training systems increase the explosive strength and strength endurance more in post-pubescent males when compared to the pre-pubescent and pubescent males. At the same time resistance training was better for increase the explosive strength and strength endurance more in pubescent males when compared to the pre-pubescent males.

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# A study of achievement motivation of university level male and female Basketball players 

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#### Abstract

Achievement Motivation is the desire or the tendency to do well or to do better than others. Present investigation was an attempt to explore the difference of achievement motivation between university level male and female basketball players. The study consisted of 24 basketball players from Aligarh Muslim University who participated in the interuniversity basketball tournament. The sample was divided into two groups namely, male (12) and female (12). After analyzing the data it was found that no significant difference exists between the male and female players on the variable of achievement motivation.


## Introduction:

Achievement motivation is an essential element of human personality. It directs a person's activity and makes it more (or less) dynamic. Achievement motivation influences the factors affecting performance in sport like: physical preparation, technique, tactics and even life style (Gracz and Sankowski, 1995). Individuals with a high achievement motivation set standards of excellence, show clear affect in connection with evaluation of their performance (McClelland et al., 1953), and display a high level of aspiration in terms of achievement goals (Heckhausen, 1955).

The majority of achievement motivation research in sport psychology has primarily focused on individual differences (goal orientation) to explain, describe, and predict behavior. However, Ames (1984a, 1992) and Nicholls (1989) contended that achievement motivation must be examined from a social cognitive paradigm in order for researchers to accurately grasp the true nature of one's need to achieve.

The purpose of present investigation was to study the difference of achievement motivation between male and female basketball players at intervarsity level. In this study researcher measured the achievement motivation of intervarsity level male and female basketball players. It was hypothesized that there may be difference in the score of male and female players.

## Method:

The data for the study was collected from 24 ( 12 male and 12 female) basketball players from Aligarh Muslim University who were selected to participate in interuniversity tournament. The "Sports Achievement motivation Test" by M.L. Kamlesh (1990) was used for the collection of data. The questionnaires were distributed to the players after taking their consent. The method of filling the response sheet was explained to the players in detail. $t$-test
was applied to test the hypotheses.

## Result and Discussion:

The data was tabulated, computed and are presented in the forthcoming pages with analyses.
Table- Comparison between the mean scores of male and female basketball players on the variable of achievement motivation

| Group | N | Mean | S.D. | t |
| :--- | :--- | :--- | :--- | :--- |
| Male | 12 | 21.83 | 4.13 | .631 |
| Female | 12 | 20.33 | 7.12 |  |

It was revealed from the table that there is no significant difference exists on the variable of achievement motivation between male and female basketball players. From the reading of the table it is evident that mean value of male (21.83) more than female (20.33) but difference is negligible.

## Conclusion:

Achievement motivation is a very important factor for the performance of a player.
The study was an attempt to find out the difference between male and female basketball players on the variable of achievement motivation. The results of the study advocated that no statistically significant differences between male and female players on the variable of achievement motivation. It may be because of that the sample size. It is recommended that such type of studies may be conducted on larger sample.

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## How to Write Bibliography

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डॉ.गोपाल प्रसाद:प्राध्यापक, इतिहास विभाग, कुरक्षेत्र विश्वविद्यालय, हरियाणा
श्री पवन कुमार : शोधछात्र, इतिहास विभाग, कुरक्षेत्र विश्वविद्यालय, हरियाणा
संक्षेप: वर्तमान हरियाणा राज्य का निर्माण भारत के इतिहास की एक महत्वपूर्ण घटना मानी जाती है। १९६६ से पहले हरियाणा का क्षेत्र पंजाब में सम्मिलित था, और यह दक्षिण - पूर्वी पंजाब के नाम से जाना जाता था। यह क्षेत्र पंजाब के अन्य क्षेत्रों, विशेषकर पश्चिमी एवं केन्द्रीय पंजाब की अपेक्षा आर्थिक एवं सांस्कृतिक दृष्टि से बहुत पिछड़ा हुआ था। इस क्षेत्र के लोगों की भाषा, खान-पान, रहन-सहन इत्यादि पंजाबी लोगों से मेल नहों खाते थे। भारत की स्वतन्त्रा के पश्चात् पंजाब की सरकार में पंजाबी भाषी लोगों का बोलबाला था। वैसे भी, पंजाब के नेता हरियाणा के लोगों को सरकार में अधिक प्रतिनिधित्व नहीं देना चाहते थे। परिणामस्वरुप, दक्षिण-पूर्वी क्षेत्र के लोगों ने अपने लिए अलग हरियाणा राज्य के निर्माण के लिए आन्दोलन आरम्भ कर दिया। इस आन्दोलन में कांग्रेस सहित विभिन्न राजनीतिक दलों ने अहम् योगदान दिया। परिणामस्वरुप, १ नवम्बर, १९६६ को हरियाणा के क्षेत्र को पंजाब से अलग करके इसे एक पृथक् राज्य का दर्जा प्रदान कर दिया गया।
प्रस्तावना:- प्रस्तुत शोध-पत्र ‘हरियाणा राज्य के निर्माण में कांग्रेस एवं अन्य दलों की भूमिका’ से सम्बन्धित है। इस अध्ययन का मुख्य उद्देश्य यह मूल्यांकन करना है कि वर्तमान हरियाणा राज्य का निर्माण किन परिस्थितियों में हुआ और इसके निर्माण में कांग्रेस व अन्य राजनीतिक दलों ने किस प्रकार की भूमिका निभाई। इसके अलावा, इस शोध-पत्र का उद्देश्य यह बताना भी है कि विभिन्न धार्मिक संगठनों, जिनमें आर्य समाज, जनसंघ तथा हिन्दू - महासभा सम्मिलित थे, ने पंजाब के विभाजन में किस प्रकार की भूमिका निभाई और किस तरह से कांग्रेस ने, न चाहते हुए भी हरियाणा को अलग प्रान्त बनाने का निर्णय लिया।

१८०३ में अंग्रेजों ने मराठा सरदार दौलतराव सिंधिया को हराकर उसे सर्जीअंजन गाँव की सन्धि करने पर मजबूर कर दिया और हरियाणा के क्षेत्र को ईस्ट इंडिया कम्पनी के शासन में मिला दिया। १८५८ में इस क्षेत्र पर से कम्पनी का शासन समाप्त कर दिया गया और इस पर ब्रिटेन के ताज का शासन स्थापित कर दिया गया। जैसा कि पीछे वर्णन किया जा चुका है कि औपनिवेशिक काल में वर्तमान हरियाणा का क्षेत्र पंजाब राज्य में सम्मिलित था। अंग्रेजों ने इस क्षेत्र के विकास की ओर अधिक ध्यान नहों दिया। परिणामस्वरुप, यह क्षेत्र राजनीतिक, सामाजिक व आर्थिक दृष्टि से पिछड़ा ही रह गया। हरियाणा के लोगों ने कई बार उचित राजनीतिक प्रतिनिधित्व के साथ-साथ आर्थिक विकास की भी मांग की, जिसका कोई परिणाम न निकला। यहाँ तक कि भारत की स्वतन्र्रता के पश्चात् भी इस क्षेत्र के लोगों की स्थिति दयनीय ही बनी रही।

वर्तमान हरियाण राज्य के गठन की मांग में केवल भाषायी भेद एवं राजनीतिक प्रतिनिधित्व की कमी ने ही नहीं बल्कि, आर्थिक और सांस्कृतिक कारणों ने भी महत्वपूर्ण भूमिका निभाई। इस क्षेत्र के लगभग ८० प्रतिशत से अधिक लोग गाँवों में निवास करते थे, जो आर्थिक व सांस्कृतिक तौर पर पिछड़े हुए थे। जैसा कि पीछे वर्णन किया जा चुका है कि भारत की आजादी से पहले अंग्रेजों ने क्षेत्र के लोगों के विकास की ओर अधिक ध्यान नहीं दिया। उन्होंने, विशेषकर पश्चिमी पंजाब में अनेक नहर-कॉलोनियों का निर्माण करवाया, ताकि वहाँ बंजर पड़ी भूमि को कृषि योग्य बनाया जा सके। यहाँ तक कि उन्होंने इस क्षेत्र (दक्षिण-पूर्वी पंजाब) के मुकाबले पंजाब में अधिक तकनीकी और औद्योगिक विकास कराया और साथ ही अनेक स्कूलों एवं कॉलेजों का निर्माण करवाया। इसके अतिरिक्त, उद्योग, रेलवे, सड़क इत्यादि के क्षेत्र में भी वर्तमान हरियाण में पंजाब की अपेक्षा बहुत कम विकास हुआ। परिणामस्वरुप, इस क्षेत्र के लोग अपने को

अधिक पिछड़ा महसूस करने लगे। स्वतन्त्रता के पश्चात् भी पंजाब सरकार ने इस क्षेत्र की ओर उचित ध्यान नहीं दिया， जिससे यहाँ के लोगों को यह लगने लगा कि उनका आर्थिक व सांस्कृतिक विकास केवल अलग राज्य बनने से ही सम्भव हो सकता है। नीचे दी गयी तालिका－१ में हरियाणा और पंजाब में हुए विकास सम्बन्धी कार्यो को तुलनात्मक रुप से दर्शाया गया है－

तालिका－？
१९६६ से पूर्व हरियाणा और पंजाब के आर्थिकविकास की तुलना

| क्रमांक | मद | पंजाबी क्षेत्र | हरियाणा क्षेत्र |
| :---: | :---: | :---: | :---: |
| १． | क्षेत्र की कुल जनसंख्या का ग्रामीण प्रतिशत | ७५．३ \％ | ८२．८\％ |
| २． | शहरी जनसंख्या | २૪．७ \％ | १ ७．२ \％ |
| ३． | विद्युतीकृत शहरों／गांवों का प्रतिशत | २९．○ \％ | १८．○ \％ |
| $\gamma$ ． | साक्षरता प्रतिशत | २६．७ \％ | १९．く \％ |
| 4. | कुल खेती क्षेत्र का प्रतिशत सिंचित क्षेत्र | ६३．० \％ | ३०．० \％ |
| ६． | कृषिय विद्युत सप्लाई संख्या | १८，२७ २ | ९，९३६ |
| ७． | पंजीकृत उद्योगों की संख्या（ ३ १．१ २．१ ९ ६४） | ३，७७६ | १，१२૪ |
| c． | औद्योगिक विद्युत सप्लाई संख्या（ ३ ．३ १ ९६५） | १६，७२९ | ७，०७२ |
| 9. | रेलवे मील दूरी | १ २७६（६२ \％） | ७く१（३८\％） |
| १०． | गैर सरकारी तथा सरकारी महाविद्यालय（ $१$ ९ ६३－६४） | ७२ \％ | २く\％ |

स्रोत ：हरियाणा डेवेलपमेंट कमेटी，फाईनल रिपोर्ट，कंट्रोलर ऑफ प्रिटिंग एंड स्टेशनरी，पंजाब，चंदीगढ，१९६६， पृ．१६४－१९०।

ऊपरालिखित तालिका－१ को देखने से पता चलता है कि १९६६ से पूर्व हरियाणा विकास के प्रत्येक क्षेत्र में पंजाब के मुकाबले काफी पिछड़ा हुआ था। अत：इस क्षेत्र के लोगों ने अलग राज्य की मांग करना आरम्भ कर दिया।

पृथक हरियाणा प्रान्त का विचार सबसे पहले स्वामी सत्यानंद ने १९२३ में लाहौर में उठाया। इसके पश्चात्， १९ २४ में，सर छोटूराम ने मेरठ में ‘ऑल इंडिया जाट स्टूड्ट्स कान्फ्रेंस＇में यह मांग दोहराई। सन् १९२६ में，＇अखिल भारतीय मुस्लिम लीग＇ने अपने दिल्ली अधिवेशन में वर्तमान हरियाणा क्षेत्र को पंजाब प्रान्त से हटाकर दिल्ली में मिलाने की मांग की। १९२८ में，दिल्ली में＇ऑल पार्टीज कान्प्रेंस＇में भी भाषा एवं संस्कृति के आधार पर अलग राज्य के निर्माण पर बल दिया गया। इसके बाद，१९३१ में हरियाणा क्षेत्र के कुछ कांग्रेसी नेताओं जैसे नेकीराम शर्मा，देशबन्धु गुप्त，पं．श्रीराम शर्मा इत्यादि ने भी अलग हरियाणा प्रान्त की मांग की।

१५ अगस्त，१९४७ को भारत की आजादी के पश्चात् इस क्षेत्र के लोगों की आशाएं बढ़ने लगी और वे आश्वस्त हो उठे कि कांग्रेस पार्टी अवश्य ही हरियाणा क्षेत्र को अलग राज्य का दर्जा प्रदान कर देगी। परन्तु अब कांग्रेस ने पृथक राज्यों की मांग के प्रति अपने दृष्टिकोण को बदल लिया था। इस समय，पंजाब में कांग्रेस एवं अकाली दल की गठबन्धन सरकार थी，जिसमें वर्तमान हरियाणा क्षेत्र से केवल चौ．लहरी सिंह को मन्त्रिमंडल में सम्मिलित किया गया था। दूसरी ओर，विभाजन के कारण पंजाब की राजनीति व जनसंख्या में काफी फेरबदल हुआ，जिससे पंजाब में मुसलमानों की जगह हिन्दुओं की संख्या अधिक हो गयी और सिक्ख भी अल्पसंख्याक बन गए। परिणामस्वरुप，फरवरी，१९४८ में

अचानक मास्टर तारा सिंह ने पृथक सिक्ख राज्य की मांग कर दी। वैसे भी, कांग्रेस सरकार पहले ही विभाजन से उत्पन्न संकट व विस्थापितों की समस्या से जूझ रही थी। वह पंजाब के एक और विभाजन के पक्ष में नहीं थी। फिर भी, तत्कालीन प्रधानमंत्री जवाहरलाल नेहरु ने जून, १९४८ को इलाहाबाद उच्च न्यायालय के सेवानिवृत्त न्यायाधीश एस.डी.आर की अध्यक्षता में चार सदस्यों का ‘प्रान्तीय भाषायी आयोग’ (लिंगविस्टिक प्रोविन्स कमीशन) नियुक्त कर दिया, परन्तु इसने अपनी रिपोर्ट में पंजाब के पुनर्विभाजन करने से इन्कार कर दिया। यह बात ध्यान देने योग्य है कि अब पंजाब में हिन्दुओं व सिक्खों के बीच भाषा-भेद तथा आर्थिक विकास का मुद्दा इतना उग्र हो चुका था कि अखिल भारतीय राष्ट्रीय कांग्रेस के लिए इसे नजरअन्दाज करना मुश्किल हो गया था।

कांग्रेस ने दिसम्बर, १९४८ को अपने जयपुर अधिवेशन में तीन सदस्यों की एक कमेटी गठित की, जिसे जे.वी.पी. (जवाहरलाल नेहरु, वल्लभभाई पटेल तथा पटाभि सीतारमैय्या) कमेटी कहा जाता था। इस कमेटी ने भी हरियाण व पंजाब के अलग-अलग राज्य की मांग को ठुकरा दिया। दूसरी ओर, इस समय कांग्रेस में आन्तरिक गुटंबदी जोरों पर प्रचलित थी। अत: १९४९ में भार्गव सरकार अकाली दल के समर्थन वापस लेने के कारण गिर गई। इसके पश्चात्, कांग्रेस के भीमसेन सच्चर पंजाब के मुख्यमंत्री बने। इसी समय, अकाली दल ने पृथक पंजाबी सूबा की मांग को पुनः उठाना शुरु कर दिया। अकाली नेता मा. तारा सिंह ने कांग्रेस को एकमात्र हिन्दुओं का प्रतिनिधित्व करने वाली पार्टी बताया और भाषा तथा धर्म के आधार पर अलग पंजाबी राज्य की मांग की। दूसरी ओर, हरियाणा क्षेत्र के नेता भी अपने को ठगा-सा महसूस कर रहे थे। वे इस क्षेत्र के विकास के लिए अलग राज्य के गठन को बहुत आवश्यक मानते थे।

१ अक्तूबर, १९४९ को इस समस्या का समाधान करने के लिए मुख्यमंत्री भीमसेन सच्चर ने एक फार्मूला पेश किया, जिसके अनुसार समस्त पंजाब को दो भागों में बांट दिया गया - पंजाबी-भाषी क्षेत्र और हिन्दी-भाषी क्षेत्र। हिन्दी-भाषी क्षेत्र में रोहतक, गुड़गांव, करनाल, कांगड़ा, हिसार (घग्गर नदी के भाग) इत्यादि जिले तथा अम्बाला जिले की जगाधरी और नारायणगढ़ तहसीलें सम्मिलित की गयी थी, जबकि पंजाबी-भाषी क्षेत्र में पंजाब के शेष क्षेत्र रखा गया था। इस फार्मूले के अनुसार गुमुमुखी लिपि अथवा पंजाबी भाषा को पंजाबी क्षेत्र की तथा देवनागरी लिपि या हिन्दी भाषा को हिन्दी क्षेत्र की सरकारी भाषा माना गया। परन्तु इस फार्मूले से न तो अकाली सन्तुष्ट हुए और न ही हरियाणा के लोग इस निर्णय से सहमत हुए। परिणामस्वरुप, १८ अक्तूबर, १९४९ को सच्चर सरकार गिर गई। अब कांग्रेस हाईकमान ने गोपीचंद भार्गव को पुन: पंजाब का मुख्यमंत्री नियुक्त कर दिया। लेकिन पंजाब कांग्रेस में चल रही गुरबन्दी के कारण उन्होंने भी २० जून, १९५१ को अपने पद से त्यागपत्र दे दिया। परिणामस्वरुप, पंजाब में राष्ट्रपति शासन लागू कर दिया गया।

१९५२ में पंजाब में विधानसभा के चुनाव हुए। कांग्रेस को इस चुनाव में जबरदस्त सफलता प्राप्त हुई। कांग्रेस हाईकमान ने भीमसेन सच्चर को विधायक दल का नेता चुनकर मुख्यमंत्री नियुक्त कर दिया। सच्चर ने अपने ८ कैबिनेट मन्त्रियों में हरियाणा क्षेत्र के लहरी सिंह को सिंचाई व बिजली मंत्री तथा प. श्रीराम शर्मा को स्थानीय स्वशासन व पंचायत मंत्रो बनाया। यह बात ध्यान देने योग्य है कि इस बार भी मन्त्रिमण्डल में हरियाणा के लोगों को उचित प्रतिनिधित्व नही दिया गया था। परिणामस्वरुप, कांग्रेस मन्त्रिमण्डल में गुटबन्दी शुरु हो गयी। प. श्रीराम शर्मा ने हरियाणा क्षेत्र के विकास की मांग को उठाते हुए सच्चर सरकार की कटु आलोचना की। जिसके कारण उन्हें पार्टी से निष्कासित कर दिया गया।

अक्तूबर, १९५३ को हरियाणा क्षेत्र के पिछड़ेपन के आधार पर अलग राज्य बनवाने की मांग पुन: जोर पकड़

गई। जल्द ही हरियाणा के नेताओं ने पृथक हरियाणा प्रान्त के लिए आन्दोलन शुरु कर दिया। अत: २९ दिसम्बर, १९५३ को गृह मन्र्रालय ने एक तीन सदस्पीय ‘स्टेट रिआर्गेनाइजेशन कमीशन’ का गठन कर दिया। उड़ीसा के तत्कालीन गवर्नर सैय्यद फजल अली को आयोग का अध्यक्ष बनाया गया, जबकि सरदार के. एम.पान्निकर व हृदयनाथ कुंजरु आयोग के अन्य सदस्य नियुक्त किये गये। इस कमीशन ने पंजाब के लगभग १०४ क्षेत्रों का भ्रमण किया। इसके अलावा, २३ फरवरी, १९५४ को आयोग ने पंजाब के लोगों से व्यक्तिगत व सामूहिक तौर पर भी राज्यों के पुनर्गठन के सम्बन्ध में लिखित सूचनाएं मांगी। वैसे भी, इस आयोग को लगभग १,५२,२५० से अधिक लोगों के प्रतिवेदन प्राप्त हुए। इसके अलावा, इस आयोग ने लगभग $९, 000$ लोगों के साक्षात्कार भी लिए। यह बात ध्यान देने योग्य है कि जनसंघ, हिन्दू महासभा तथा आर्य समाज ने अकाली दल की पंजाबी सूबा की मांग को साम्प्रदायिक कहकर इसकी कटु आलोचना की। उन्होंने आयोग से पंजाब, पैप्सू, हिमाचल प्रदेश, दिल्ली, पश्चिमी उत्तर प्रदेश के कुछ जिलों को मिलाकर ‘महापंजाब’ बनाने की मांग की। पंजाब सरकार ने भी देश की एकता व अखण्डता की सुरक्षा के लिए ‘महापंजाब’ बनाने की सिफारिश की, जिससे स्थिति और खराब हो गई। परन्तु, हरियाणा क्षेत्र के नेताओं ने ‘महापंजाब' बनाने का विरोध किया और आयोग को अलग हरियाणा प्रान्त की स्थापना करने के लिए ज्ञापन दिया।

३० सितम्बर, १९५५ को स्टेट रिआर्गेनाइजेशन कमीशन ने अपनी रिपोर्ट प्रस्तुत की, जिसमें उसने मद्रास, केरल, कर्नाटक, हैदराबाद, बम्बई, विदर्भ, मध्यप्रदेश इत्यादि राज्यों के पुनर्गठन को स्वीकार कर लिया, परन्तु पंजाब के पुनर्विभाजन को अस्वीकार कर दिया। अत: कमीशन की रिपोर्ट का हरियाणा के लोगों ने तीव्र विरोध किया। प्रो.शेर सिंह ने विधानसभा में कहा : "हरियाणा क्षेत्र के ९० प्रतिशत लोगों का मानना है कि उनका पंजाब से कोई सांस्कृतिक मेल नही है। वे उन लोगों तथा क्षेत्रों से जुड़ना चाहते है, जहां वे १८५७ के विद्रोह से पहले जुड़े हुये थे।" इसी प्रकार, २५ नवम्बर, १९५५ को कम्युनिस्ट पार्टी के नेता सोहन सिंह जोश ने भी कहा था कि हरियाणा क्षेत्र के लोगों को सन्तुष्ट करने के लिए पंजाब प्रान्त की सीमाओं का पुनः निर्धारण करके भाषा के आधार पर पृथक राज्य बना देना चाहिए। दूसरी ओर, हरियाणा क्षेत्र के विधायक चौ.श्रीचंद, पं.श्रीराम शर्मा, प्रो.शेर सिंह इत्यादि ने भी पृथक हरियाणा प्रान्त की मांग न मानने पर आयोग की आलोचना की और इसके लिए संघर्ष की चेतावनी दी।

पंजाब प्रदेश कांग्रेस कमेटी भी इस समय दोनों क्षेत्रों के पुनर्गठन के विषय पर दो गुटों में बंटी हुई थी, जिसके कारण ७ जनवरी, १९५६ को सच्चर ने अपने पद से इस्तीफा दे दिया। जनवरी, १९५६ को कांग्रेस हाईकमान ने प्रताप सिंह कैरों को पंजाब का नया मुख्यमंत्री बना दिया। अब नये मुख्यमंत्री ने पृथक प्रान्त की मांग को शान्त करने के लिए अपने मन्त्रिमण्डल में हरियाणा क्षेत्र के नेताओं को उचित प्रतिनिधित्व प्रदान करने का प्रयास किया। उन्होने प्रो. शेरसिंह को उपमुख्यमंत्री भी नियुक्त कर दिया। इसके अलावा, अप्रैल, १९५६ को, पंजाब सरकार की सिफारिश पर केन्द्रीय सरकार ने भी अकालियों एवं हरियाणा क्षेत्र के नेताओं को सन्तुष्ट करने के लिए क्षेत्रीय फार्मूला तैयार किया, जिसके अनुसार पंजाब प्रान्त को भाषायी आधार पर दो क्षेत्रों में बांट दिया गया - पंजाबी भाषी व हिन्दी भाषी क्षेत्र। हर क्षेत्र की व्यवस्था के लिए विधायकों की एक क्षेत्रीय कमेटी भी बनाई गयी। इस नयी व्यवस्था के अन्तर्गत प्रत्येक क्षेत्र के विषय में कानून निर्माण करने से पहले क्षेत्रीय कमेटी की सलाह लेना जरुरी कर दिया गया था। यहाँ तक कि दोनों क्षेतों की सांझी विधानसभा और सांझा गवर्नर भी तय कर दिया गया। इस उद्देश्य की पूर्ति के लिए ७वाँ संवैधानिक संशोधन अधिनियम भी पारित किया गया। २४ जुलाई, १९५६ को राष्ट्रपति की अनुमति के पश्चात् पंजाब सरकार ने क्षेत्रीय फार्मूला लागू

कर दिया। इस फार्मूले के अनुसार दोनों क्षेत्रों की सीमाएं भी निर्धारित कर दी गयी। इस फार्मूले का कांग्रेस सहित सभी दलों ने स्वागत किया। वैसे भी, इस घटनाक्रम से यह स्पष्ट हो गया था कि सरकार ने क्षेत्रीय फार्मूला लागू करके कम से कम यह तो स्वीकार कर लिया था कि पंजाब में भाषा, आर्थिक व सांस्कृतिक विविधता जैसी अनेक समस्याएँ है और सरकार इन्हें हल करने की आवश्यकता महसूस कर रही थी।

फरवरी - मार्च १९५७ में लोकसभा और पंजाब विधानसभा के चुनाव हुए, जिनमें कांग्रेस को भारी सफलता मिली। कांग्रेस की इन चुनावों में विजय का मुख्य कारण चुनाव से पूर्व अलग हरियाणा प्रान्त की मांग उठाना था, जिसके कारण कुछ दल कांगेस में शामिल हो गए थे। इसके अलावा, जनसंघ ने पृथक हरियाणा प्रान्त की मांग का विरोध किया था, जिसके परिणामस्वरुप, हरियाणा के मतदाता कांग्रेस के पक्ष में हो गए थे। चुनावों के पश्चात् प्रताप सिंह कैरों एक बार फिर पंजाब के मुख्यमंत्री बने। उसने अपने मंत्रीमण्डल में ७ कैबिनेट मंत्री व ५ उपमंत्री सम्मिलित किए। हरियाणा क्षेत्र से राव वीरेन्द सिंह व चौ. शूरजमल को कैबिनेट मंत्रो तथा दलबीर सिंह व बनारसी दास गुप्त को उपमंत्री बनाया गया। यह बात ध्यान देने योग्य है कि अभी भी हरियाणा क्षेत्र को पंजाब सरकार में उचित प्रतिनिधित्व नहीं दिया गया था। इस क्षेत्र से पाँच या छः से अधिक विधायकों को कभी भी मंत्री नहों बनाया गया। परिणामस्वरुप, हरियाणा क्षेत्र के नेताओं ने क्षेत्रीय फार्मूले का विरोध करना शुरु कर दिया और लगभग ३० विधायकों ने मिलकर मुख्यमंत्री कैरों को एक पत्र लिखकर अपनी नाराजगी व्यक्त की। उन्होंने मन्त्रिमण्डल में आधे सदस्य हरियाणा क्षेत्र से लेने और साथ ही उपमुख्यमंत्री का पद भी देने की मांग की। इसके साथ ही उन्होंने अलग हरियाणा प्रान्त की मांग भी की। इसके पश्चात् २१ नवम्बर, १९५७ को आचार्य भगवान देव के नेतृत्व में रोहतक में एक विशाल हरियाणा सम्मलेन हुआ। इसमें पं. श्रीराम शर्मा, प्रताप सिंह दौलता, हुक्म सिंह इत्यादी ने भाग लिया। इस सम्मेलन में एक प्रस्ताव पास करके "विशाल हरियाणा बनाने" बनाने की मांग की गई। परन्तु पंजाब सरकार ने उनकी मांगो की ओर कोई ध्यान नहीं दिया। इसके विपरीत, सरकार ने ५ सितम्बर, १९५८ को एक प्रस्ताव पास कर दिया, जिसके अनुसार सरकारी नौकरी प्राप्त करने वालों के लिए मैट्रिकुलेशन स्तर तक पंजाबी भाषा पास होना अनिवार्य कर दिया। इससे पृथक हरियाणा के गठन करवाने के लिए आन्दोलन और तेज हो गया।

दूसरी ओर, कई हिन्दू संगठनों जैसे आर्य समाज, जनसंघ, हिन्दी रक्षा समिति इत्यादि ने "हिन्दी बचाओ" आन्दोलन आरम्भ कर दिया। जनसंघ व हिन्दू महासभा ने पंजाब सरकार में सिक्खों के बढ़ते हुए प्रभाव को रोकने के लिए पुनः महापंजाब बनाने की मांग करनी शुरु कर दी। कांग्रेस के असन्तुष्ट विधायकों, जैसे - पं. श्रीराम शर्मा, प्रो. शेरसिंह, मामचन्द, बदलूराम, और मुरारीलाल शास्ती ने भी हिन्दी ‘बचाओ आन्दोलन’ में भाग लिया। हालांकि, कैरों ने इन बागी कांग्रेस नेताओं के साथ कठोर व्यवहार किया। उन्हें गिरफ्तार करवाकर जेल में बंद कर दिया गया। जेल से रिहा होने के बाद अधिकांश विधायकों ने पं. श्रीराम शर्मा के नेतृत्व में "हरियाणा रीजनल फ्रन्ट" दल का गठन कर लिया। परिणामस्वरुप, प. श्रीराम शर्मा, प्रो. शेरसिंह व अन्य कांग्रेसी नेताओं को कांग्रेस से निकाल दिया गया। दूसरी ओर, कैरों का हरियाणा क्षेत्र से भेदभावपूर्ण व्यवहार जारी रहा।

मई, १९६० को. मा. तारा सिंह ने पंजाबी सूबे की मांग को मनवाने के लिए तीव्र आन्दोलन आरंभ कर दिया। परिणामस्वरुप, सरकार ने मा. तारा सिंह सहित २६,००० अकालियों को गिरफ्तार करके जेल में डाल दिया। इसके पश्चात्, संत फतेह सिंह ने १८ दिसम्बर, १९६० को पंजाबी सूबा के लिए आमरण अनशन शुरु कर दिया। परन्तु ८

जनवरी, १९६१ को तत्कालीन प्रधानमंत्री जवाहर लाल नेहरु ने भाषा के आधार पर अलग प्रान्त बनाने से इन्कार कर दिया। उन्होंने कहा कि ‘इस क्षेत्र में काफी संख्या में लोग हिन्दी भाषा भी बोलते है। अतः पंजाबी सूबा बनाना उसके साथ ज्यादती होगी।' उन्होंने फतेह सिंह को अनशन छोड़कर बातचीत के लिए आमन्त्रित किया। अतः ८ फरवरी, १९६१ को प्रधानमंत्री जवाहर लाल नेहर व संत फतेह सिंह के बीच दिल्ली में बातचीत हुई, जो असफल हो गयी। हालांकि, वे दोनों इस बात पर सहमत हो गए थे कि पंजाब की मुख्य भाषा पंजाबी ही होगी और इसके विकास के लिए केन्द्रीय सरकार विशेष कदम उठाएगी। प्रधानमंत्री के इस निर्णय से गैर-सिक्खों में तीव्र प्रतिक्रिया हुई। प्रो. शेरसिंह, जो उस समय आर्य समाज की एक्शन कमेटी के अध्यक्ष और 'विशाल हरियाण प्रदेश पार्टी' के महासचिव और केन्द्रीय सरकार में राज्यमंत्री थे, ने एक कान्फ्रेंस में कहा कि '"यदि पंजाब को एक भाषायी प्रान्त घोषित किया गया, तो उसका उग्र विरोध किया जाएगा।" इसी समय, कैरों सरकार ने मा. तारा सिंह को जेल से रिहा कर दिया। जेल से छूटने के बाद उन्होने सबसे पहले अपने हाथों से खिसकते हुये सिक्ख नेतृत्व को सम्भालने का प्रयास किया। उसने बड़ी चालाकी से संत का व्रत तुड़वा दिया और स्वयं पंजाबी सूबे के समर्थन में १५ अगस्त, १९६१ को अमृतसर में आमरणव्रत आरंभ कर दिया। उन्होंने घोषणा की कि कोई भी सिक्ख अब पंजाबी सूबा से कम कुछ भी स्वीकार नहीं करेगा। इसके विरोध में ‘हिन्दी रक्षा समिति’ के अध्यक्ष स्वामी रामेश्वरानंद व योगीराज सूर्यदेव ने भी भूख हड़ताल शुरु कर दी। परिणामस्वरुप, इस समस्या का समाधान करने के लिए तत्कालीन प्रधानमंत्री पं. जवाहर लाल नेहरु ने १ अक्तूबर, १९६१ को सी.आर. दास के नेतृत्व में एक आयोग नियुक्त कर दिया। इस घोषणा के पश्चात् मा. तारा सिंह ने अपना ४८ दिन पुराना व्रत तोड़ दिया। दूसरी ओर, स्वामी रामेश्वानंद व योगीराज सूर्यदेव ने भी अपनी भूख हड़ताल समाप्त करने की घोषणा कर दी। लेकिन अकालियों ने इस आयोग का बहिष्कार किया, क्योंकि केन्द्रीय सरकार ने दास आयोग में मा. तारा सिंह व्दारा बताए गए सदस्यों को सम्मिलित नही किया था। दूसरी ओर, हरियाणा क्षेत्र के नेताओं ने आयोग के समक्ष अपने क्षेत्र के लोगों के विकास कार्यो, सरकारी नौकरियों एवं राजनीतिक क्षेत्र में हो रहे भेदभाव के आंकड़े प्रमाण सहित प्रस्तुत किए और अलग हररियाणा प्रान्त बनाने की मांग की। उन्होंने नैकरियों में हो रहे पक्षपात का खुलासा करते हुये दास आयोग को बताया : "प्रथम दर्जे के कुल १२३१ पदों में से, सिर्फ ८२ पदों पर हिन्दी भाषी क्षेत्र के लोग आसीन है। पंजाब सरकार ने न केवल नौकरियों में बल्कि आर्थिक क्षेत्र में जैसे कृषि, सिंचाई, फैक्ट्रियों इत्यादि में भी हरियाणावासियों के साथ भेदभावपूर्ण नीति अपनाई है।"

९ फरवरी, १९६२ को दास कमीशन ने अपनी रिपोर्ट प्रस्तुत की, जिसमें उसने पंजाबी सूबे की मांग को ठुकरा दिया। इससे हरियाणा निर्माण की मांग को गहरा झटका लगा। इसी समय, पंजाब में लोकसभा व पंजाब विधानसभा के चुनाव हुए, जिसमें कांग्रेस को स्पष्ट बहुमत प्राप्त हुआ। कैरों एक बार फिर पंजाब के मुख्यमंत्री बने। उसने अपने मंत्रीमण्डल में १० कैबिनेट, ९ राज्यमंत्री, १२ उपमंत्री (जिनमें एक मुख्य संसदीय सचिव तथा एक संसदीय सचिव भी था) सम्मिलित किए। हरियाणा क्षेत्र से रणबीर सिंह व रामसरन चन्द्र मित्तल को कैबिनेट मंत्री, चाँदराम व भगवतदयाल शर्मा को राज्यमंत्री तथा बनारसीदासगुप्त, ओमप्रभा व तैय्यब हुसैन खाँ को उपमंत्री और चन्द्रावती को संसदीय सचिव बनाया ताकि अलग प्रान्त की मांग को शान्त किया जा सके।

अक्तूबर, १९६२ को चीन ने भारत पर आक्रमण कर दिया, जिसके कारण कुछ समय के लिए पृथक हरियाणा की मांग ठण्डी पड़ गयी, परन्तु युध्द के बाद यह फिर से शुरु हो गई। देवीलाल ने कैरों सरकार पर हरियाणा के लोगों के

साथ पक्षपात करने का आरोप लगाया और पृथक हरियाणा प्रान्त की मांग की। उन्होंने हरियाणा क्षेत्र में विभिन्न स्थानों पर जनसभाएं की और कैरों सरकार व्दरा किये जा रहे भेदभाव के बारे में लोगों को जागृत किया। जुलाई, १९६३ को सभी गैर-कम्युनिस्ट राजनीतिक दलों ने देवीलाल के नेतृत्व में ‘संयुक्त मोर्चा’ गठित कर लिया। उन्होंने कांग्रेस हाईकमान से कैरों के खिलाफ एक जाँच समिति गठित करवाने की भी मांग की। परिणामस्वरुप, केन्द्रीय सरकार ने १९५२ के जाँच अधिनियम के तहत, पूर्व मुख्य न्यायाधीश एस.आर. दास के अधीन एक कमीशन नियुक्त कर दिया। इसके अलावा, १३ जुलाई, १९६३ को चौधरी देवीलाल एवं २६ अन्य नेताओं ने प्रताप सिंह कैरों के खिलाफ एक ज्ञापन राष्ट्रपति सर्वपल्ली राधाकृष्णन को भी दिया। २७ मई, १९६४ को प. जवाहरलाल नेहरु की मृत्यु हो गयी और लाल बहादुर शास्री प्रधानमंत्री बने। अब कैरों का पक्ष करने वाला कोई केन्द्रीय नेता नहीं रहा। इसी समय, ११ जून, १९६४ को दास कमीशन ने अपनी रिपोर्ट प्रस्तुत कर दी, जिसमें कैरों को सत्ता का दुरुपयोग करने और व्यक्तिगत लाभों के लिए पदों का गलत इस्तेमाल करने के आरोप लगाए। रिपोर्ट के सार्वजनिक होने से पूर्व ही कैरों ने अपने पद से इस्तीफा दे दिया। उनके पश्चात् ्रामकिशन पंजाब के मुख्यमंत्री बने। अब हरियाणा के विधायकों ने इकठे होकर मुख्यमंत्री रामकिशन को एक स्मरणपत्र दिया, जिसमें उन्होंने हरियाणा क्षेत्र के साथ हो रहे नीतिगत भेदभाव व पिछड़ेपन का उल्लेख किया। परिणामस्वरुप, मुख्यमंत्री ने २०मार्च, १९६५ को पं. श्रीराम शर्मा की अध्यक्षता में "हरियाणा डवैलपमेंट कमेटी" गठित कर दी। इस कमेटी ने ४ अगस्त, १९६५ को अपनी रिपोर्ट सरकार को प्रस्तुत की, जिसमें कहा गया: "हरियाणा क्षेत्र विकास के लगभग हर क्षेत्र, जैसे - शिक्षा, कृषि, बिजली, उद्योग, खाद, पशुपालन, रोजगार, ग्रामीण, शहरी, औषधालयों, कॉपरेटिव सोसायटी इत्यादि क्षेत्रों में पंजाब की तुलना में काफी पिछड़ा हुआ है। इसका मुख्य कारण पंजाब सरकार व्दारा १९४७ से लेकर अब तक इस क्षेत्र के साथ किया गया पक्षपातर्रूण व्यवहार था।" इसके अलावा, कमेटी ने रिपोर्ट में यह भी कहा : "इस क्षेत्र से विधायकों की संख्या अधिक होते हुये भी उन्हें कभी भी मंत्रीमण्डल में उचित प्रतिनिधित्व नहीं दिया गया।" इस कमेटी की रिपोर्ट के पश्चात् हरियाणा क्षेत्र में राजनीतिक हलचल अत्याधिक तेज हो गयी। इस क्षेत्र के नेताओं ने अलग प्रान्त बनवाने के लिए आन्दोलन और तेज कर दिया। हालांकि आर्य प्रतिनिधि सभा जैसे कुछ संगठन क्षेत्रीय फार्मूले को बनाये रखने के पक्ष में थे। यही कारण था कि उन्होंने $५$ सितम्बर को पंजाब बंटवारे के विरुद्द रोष-दिवस के रुप में मनाने का निर्णय लिया।

सन १९६५ में पाकिस्तान ने भारत पर एक बार फिर आक्रमण कर दिया। अतः तत्कालीन गृहमन्त्री गुलजारी नन्दा को लोकसभा में यह घोषणा करनी पड़ी कि सरकार पंजाबी सूबे एंव हरियाणा प्रान्त के मुद्दे पर युध्द के पश्चात विचार करेगी। उन्होंने प्रधानमंत्री की ओर से संत फतेह से भी आग्रह किया कि वह प्रस्तावित भूख हड़ताल त्यागकर एकता के साथ पाकिस्तान का मुकाबला करने में सहायता करे। राष्ट्रीय हित को देखते हुए फतेह सिंह ने ९ सितम्बर, १९६५ को भूख हड़ताल स्थगित कर दी। युध्द समाप्ति के पश्चात् २३ सितम्बर, १९६५ को केन्द्रीय गृहमन्त्री ने पंजाब व हरियाणा की समस्या पर विचार-विमर्श के लिए भारत सरकार की ओर से एक ‘कैबिनेट कमेटी’ गठित कर दी, जिसमें रक्षामंत्री वाई. बी. चव्हान, सूचना एवं प्रसारण मंत्री श्रीमती इन्दिरा गांधी एवं पुर्नवास मंत्री महावीर त्यागी शामिल थे। इसके अलावा, कमेटी की सहायता के लिए लोकसभा अध्यक्ष सरदार हुक्म सिंह की अध्यक्षता में २२ सांसदों (जिनमें लोकसभा के १४ तथा राज्यसभा के ७ सदस्य शामिल थे) की एक संसदीय समिति भी गठित की।

दूसरी ओर, ३ अक्तूबर, १९६५ को हरियाणा क्षेत्र के सभी राजनीतिक दलों के नेताओं का एक सम्मेलन

चंढीगढ़ में हुआ, जिसमें पुनः पृथक हरियाणा प्रान्त की मांग को दोहराया गया। इस सम्मेलन में ‘संसदीय समिति’ को एक ज्ञापन देने के लिए एक २१ सदस्यीय "सर्वदलीय हरियाणा संघर्ष समिति" भी गठित की गयी, जिसका अध्यक्ष चौ. देवीलाल को बनाया गया। कमेटी के अन्य सदस्यों में लहरी सिंह, प्रताप सिंह दौलता, सूरजमल, प. श्रीराम शर्मा, धर्मसिंह राठी, राव वीरेन्द्र सिंह इत्यादि सम्मिलित थे। इसी समय, भारतीय साम्यवादी दल की पंजाब इकाई ने पृथक हरियाणा प्रान्त बनाये जाने की मांग का समर्थन किया। उनका मानना था कि पंजाब समस्या का समाधान केवल दो प्रान्त-पंजाबी भाषी एवं हिन्दी भाषी बनाकर ही किया जा सकता है।
$१ ७$ अक्तूबर, १९६५ को बलवन्त राय तायल की अध्यक्षता में हरियाणा क्षेत्र के प्रमुख नेताओं का एक सम्मेलन रोहतक में बुलाया गया, जिसमें प. श्रीराम शर्मा, जगदेव सिदान्ती (सांसद), शिवचरण (सांसद) इत्यादि नेताओं ने भाग लिया। इस सम्मेलन में यह निर्णय लिया गया कि हरियाणा राज्य के गठन की मांग को मनवाने के लिए हरियाणा क्षेत्र के सभी चुने हुए प्रतिनिधि अपने अखिल भारतीय राष्ट्रीय कांग्रेस के अध्यक्ष कामराज को, तथा विपक्षी दलों के विधायक अपने त्यागपत्र देवीलाल को सौंप देंगे। अत: पृथक हरियाणा प्रान्त की मांग पूरा करवाने के लिए २५ कांग्रेसी विधायकों और ११ विपक्षी विधायकों ने अपने-अपने त्यागपत्र दे दिए।

११ जनवरी, १९६६ को लाल बहादुर शास्री की ताशकंद में मृत्यु हो गयी। उनके पश्चात् श्रीमती इन्दिरा गांधी देश की प्रधानमंत्री बनी। इसी दौरान "सर्वदलीय हरियाणा संघर्ष समिति" का एक प्रतिनिधि मंडल, जिसमें देवीलाल, शेरसिंह, मूलचन्द्र जैन, रामसरन चन्द मित्तल, सुल्तान सिंह एवं चन्द्रभान गुप्ता सम्मिलित थे, ने संत फतेह सिंह से ३ मार्च, १९६६ को अकाल तख्त पर अमृतसर में भेंट की और पृथक हरियाणा प्रान्त के लिए सिक्खों के समर्थन की मांग की। संत ने इस प्रतिनिधिमंडल को विश्वास दिलाया कि वे हरियाणा क्षेत्र व पहाड़ी क्षेत्र के लोगों को किसी प्रकार का नुकसान नहीं पहुंचने देंगे। इससे हरियाणा की मांग को बहुत बल मिला, परन्तु जनसंघ ने अकाली दल व हरियाणा के नेताओं के बीच हुये समझौते की कटु आलोचना की। उन्होंने पंजाब की एकता, अखंडता एवं इसके द्विभाषी स्वरुप को बनाए रखने के लिए १० मार्च से भूख हड़ताल करने की घोषणा कर दी, जिसकी चौ. देवोलाल ने भर्स्सना की।

१८ मार्च, १९६६ को संसदीय समिति ने सभी राजनीतिक दलों के विचारों को जानने के पश्चात् लोकसभा में अपनी रिपोर्ट प्रस्तुत कर दी, जिसमें समिति ने हरियाणा की मांग का पूर्ण समर्थन किया। समिति ने सुझाव दिया कि 'पंजाब के पहाड़ी हिन्दी भाषी क्षेत्र को हिमाचल प्रदेश में सम्मिलित किया जाए और शेष हिन्दी भाषी क्षेत्र को हरियाणा प्रान्त के रुप में पुनर्गठठत किया जाए'। साथ ही समिति ने तीनों प्रान्तों की सीमा निर्धारिण के लिए एक ‘सीमा आयोग’ का गठन करने की सिफारिश भी की। २१ मार्च, १९६६ को भारत सरकार ने संसदीय समिति की सिफारिशों को स्वीकार कर लिया और २३ अप्रैल, १९६६ को हरियाणा, पंजाब व हिमाचल प्रदेश की अलग-अलग सीमाएं निर्धारित करने के लिए तीन ‘सदस्यीय सीमा’ आयोग का गठन कर दिया। सीमा आयोग का अध्यक्ष उच्चतम न्यायालय के न्यायाधीश श्री. जयंतीलाल छोटालाल शाह को नियुक्त किया गया, जबकि इसके अन्य सदस्यों में एम.एम. फिलिप व एस.एस. दत्त सम्मिलित थे। सीमा आयोग के समक्ष हरियाणा क्षेत्र के अनेक नेताओं ने अलग राज्य के निर्माण के लिए अपना पक्ष रखा और चण्डीगढ़ को हरियाणा में मिलाए जाने की वकालत की।

३१ मई, १९६६ को ‘सीमा आयोग’ ने अपनी रिपोर्ट भारत सरकार के सम्मुख प्रस्तुत कर दी। वैसे भी, आयोग ने अपनी रिपोर्ट में जिला, महेन्द्रगढ़, गुड़गाँव, रोहतक, करनाल तथा तहसील नरवाना व जीद (जिला संगरुर),

खरड़ तहसील (राजधानी चंडीगढ़ सहित), नारायणगढ़, अम्बाला और जगाधरी (जिला अम्बाला) को मिलाकर हिन्दी भाषी प्रान्त (हरियाणा) बनाने की सिफारिश की। इसी समय, फतेह सिंह ने चंडीगढ़ पर अपना अधिकार जताया और कहा कि "हम चंडीगढ़ नहों छोड़ेगें"। उन्होंने सरकार को चेतावनी दी कि यदि चंडीगढ़ हरियाणा को दिया गया तो इसके परिणाम गम्भीर होंगे। दूसरी ओर, ‘सर्वदलीय हरियाणा संघर्ष समिति’ के नेताओं ने ७ जून, १९६६ को दिल्ली में एक बैठक बुलाकर आयोग के निर्णय को स्वीकार कर लिया। इसी समय हरियाणा क्षेत्र के प्रसिध्द नेता देवीलाल ने कहा कि, "अब चंडीगढ़ पर कोई बातचीत नही हो सकती, क्योंकि यह क्षेत्र आयोग व्दरा हिन्दी क्षेत्र को दिया जा चुका है"। इस प्रकार चंडीगढ़ के क्षेत्र को लेकर दोनों प्रान्तों में स्थिति गम्भीर हो गयी। वैसे भी, इस राजनीतिक उथल-पुथल में केन्द्रीय सरकार कोई भी खतरा नहों उठाना चाहती थी। अत: प्रधानमंत्री इन्दिरा गांधी ने १२ जून, १९६६ को घोषणा की, कि चंडीगढ़ का क्षेत्र किसी भी प्रान्त को नहीं दिया जाएगा। यह दोनों प्रान्तों की संयुक्त राजधानी रहेगा और इसे केन्द्र शासित प्रदेश का दर्जा दिया जाएगा। इसका हरियाणा के नेताओं ने विरोध किया। स्वयं पंजाब प्रदेश कांग्रेस कमेटी के अध्यक्ष पं. भगवतदयाल शर्मा ने भी सरकार पर अकाली आन्दोलन के दबाव के सामने झुकने का आरोप लगाया।

३ सितम्बर, १९६६ को गुलजारी लाल नंदा ने लोकसभा में "पंजाब पुनर्गठन बिल" प्रस्तुत कर दिया, जिसके अनुसार "दोनों प्रान्तों का उच्च न्यायालय, भण्डारण निगम, बिजली बोर्ड इत्यादि संयुक्त होंगे। चंडीगढ़ केन्द्रशासित प्रदेश होगा और यह दोनों प्रान्तों की राजधानी होगा। एक 'भाँखड़ा मैनेजमेंट बोर्ड' स्थापित किया जाएगा, जिसे हरियाणा, पंजाब व राजस्थान की सरकार उचित फंड प्रदान करेंगी"। ७ सितम्बर, १९६६ को यह बिल संसद व्दारा पास कर दिया गया तथा १८ सितम्बर, १९६६ को राष्ट्रपति ने इस पर हस्ताक्षर कर दिए। इस प्रकार १ नवम्बर, १९६६ को अलग हरियाणा प्रान्त बना दिया गया। भगवतदयाल शर्मा को हरियाणा का मुख्यमंत्री तथा धर्मवीर को प्रदेश का राज्यपाल बनाया गया।
निष्कर्ष:- अन्त में कहा जा सकता है कि हरियाणा राज्य के निर्माण में इस क्षेत्र के नेताओं को एक लम्बा संघर्ष करना पड़ा। यह क्षेत्र एक लम्बे समय से आर्थिक एवं सांस्कृतिक दृष्टि से बहुत पिछड़ा हुआ था। न तो औपनिवेशिक सरकार ने और न ही स्वतन्र्र भारत की पंजाब सरकार ने उस क्षेत्र के विकास की ओर कोई ध्यान नहीं दिया। यहाँ तक कि इस क्षेत्र के लोगों को राजनीति में भी उचित प्रतिनिधित्व नहों दिया गया। परिणामस्वरुप, हरियाणा के लोगों ने अलग प्रान्त बनवाने के लिए आन्दोलन शुरु कर दिया। जैसे - जैसे कांग्रेस ने अलग राज्य की मांग का विरोध किया, इसके लिए आन्दोलन और तेज होता चला गया। अन्त में श्रीमती इन्दिरा गांधी को अलग प्रान्त की मांग स्वीकार करनी पड़ी। परिणामस्वरुप, १ नवम्बर, १९६६ को हरियाणा को अलग राज्य का दर्जा प्रदान कर दिया गया।

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## संगीत के क्षेत्र में नारी के साथ भेद-भाव का विश्लेषणात्मक अध्ययन

डॉ.शकुन्तला नागर :सहायक प्राध्यापिका, संगीत एंव नृत्य विभाग, कुरक्षेत्र विश्वविद्यालय, हरियाणा

प्राचीनकाल से संगीत का मानव जीवन के साथ घनिष्ठ सम्बन्ध रहा है हालांकि संगीत किसी लिंग विशेष से सम्बध्द नहीं है, फिर भी संगीत विधा में नारी को मनोरंजन का साधन माना जाता है । नारी को पुरुष के समान अधिकार कभी नहीं रहा, भले ही वह उन्मुक्त वैदिक काल खण्ड हो या फिर स्वाधीनोत्तर युग । नारी सर्वदा पारिवारिक रीतिरिवाजों में आबध्द रही है । यद्यपि नारी को गृहस्थी का अंकुरण या नारी समाज और संस्कृति का मेरुदण्ड कहा जाता रहा है । पुरुष को यदि सृजनकर्ता मान लिया जाये तो नारी धारण करने वाली अपरिहार्य शक्ति है, जिसके अभाव में पुरुष निस्सहाय है । ऋग्वेद के अंतिम में भगवान सब नर-नारियों को सम्बोधित करते हुए कहते है :-

स्मानो मन्त्र: समिति समानी समानं मनः सहचित्तमेंषाम ।
समानमन्र्रमाभ्लिमन्त्रे वः समानेन वो हविषा तुहोमि ।।
अर्थात् हे समस्त नर-नारियों तुम्हरे लिए यह मन्त्र समान रुप से दिए गए है तथा तुम्हरा परस्पर विचार भी समान रुप से हो, तुम्हारी सभाएं सब के लिए समान रुप से खुली हों, जन्मगत भेद-भाव उनके अन्दर न हो, तुम्हारा मन और चित समान रुप से मिला हो, मैं तुम्हें समान रुप से मन्त्रों को उपदेश करता और समान रुप से ग्रहण करने योग्य पदार्थों को देता हूँ । इस मन्त्र में स्पष्ट कहा गया है कि वेदों के मन्त्र भगवान ने सब नर-नारियों के हित के लिए समान रुप से दिए है । भगवान ने ही जब स्री व पुरुष में किसी प्रकार का भेद - भाव नहीं किया फिर पुरुष क्यों स्वार्थ वश स्तियों के साथ भेदभाव का उपक्रम करता चला आया है।

ऋग्वैदिक काल में नारी व संगीत दोनों को ही प्रतिष्ठा प्राप्त थी। ऋग्वेद व संहिताओं में लिंग-व्यवस्था का कोई वर्णन प्राप्त नहीं होता। परन्तु ऋग्वेद सन्दर्भ $4 . ३ ० . ९$ में नारी को अबला कहा गया है। इसका अर्थ है कि नारी को उक्त समय में भी पुरुष के समान सबल नहों माना जाता था, यथा:- "अबलाः स्त्रीरुपाः।" यजुर्वेद भाष्य में स्वामी दयानन्द ने स्री को विराट कहा है:- "विराट या विविधासु (विद्यादिषु) राजते सा स्री"' अर्थात् जो विविध विद्यादि से राजमान होती है, वह स्री विराट है। अथर्ववेद में नारी को शुध्दा, पवित्र, पूजनीय व सुमंगली आदि आदरसूचक शब्दों से सम्बोधित किया गया है। मनू के शब्दों में :- "यत्र नारीयस्ती पूज्यन्ते, रमन्ते तत्र देवताः।" स्मृतिकाल के आते आते नारी व पुरुष की असमानता प्रकट होने लगी और संगीत को भी मात्र भोग-विलास का साधन माना जाने लगा।

गीतवादित्रतृत्यानां रक्तिः साधरणो गुणः।
अतो रक्तिविहीनं यत्न तत् संगीतमुच्यते ।।
अर्थात् गीत, वाद्य तथा नृत्य तीनों का साधारण गुण मनोरंजन करना है । वैदिक काल से आज तक संगीत इसी गुण के कारण मनुष्य, नारी व संगीत का उपयोग मुख्य रुप से मनोरंजन के लिए करता आया है । संगीत व नारी के पारस्परिक सम्बन्ध के प्रमाण साहित्य में प्रचुर मात्रा में उपलब्ध है । शिल्प व भित्तिचित्रों में प्राय: नारी को नृत्य की भंगिमाओं के साथ उकेरा गया है । स्मृतिकाल के पश्चात् नारी मात्र मनोरंजन के ही निमित्त रह गयी थी । राजा महाराजा स्री कलाकारों को मनोरंजनार्थ अपने दरबार में रखने लगे। देवदासी प्रथा आरम्भ हुई तो वुँवारी कन्याएं मन्दिर के पुरोहितों के मनोरंजन का साधन बन गई ।

मध्यकाल में मुस्लिम राज्य की स्थापना के साथ संगीत की एक नयी परम्परा प्रारम्भ हुई । विविध नगरों में अनेकानेक मुशायरे स्थापित किये गये, जहाँ स्त्रियों को मुशायरे में मुजरों के लिए रखा जाने लगा । यहाँ भी नारी भोग की ही वस्तु रही । औपनिवेशिक शासनकाल की स्थापना के बाद स्थिति में कुछ परिवर्तन आया परन्तु संगीत या नारी की

स्थिति निम्न ही बनी रही। अंग्रेजों ने शिक्षा के लिए स्कूल खुलवाये, सती प्रथा, पर्दा प्रथा आदि भी रुक गयीं, परन्तु फिर भी संगीत और नारी की स्थिति में कोई परिवर्तन नहीं आया।

आज संगीत के क्षेत्र में नारी ने बहुत प्रतिष्ठा अर्जित की है। परन्तु यदि गौर से देखा जाये तो आज भी स्त्रियों का मुख्य कार्य पुरुष वर्ग का मनोरंजन करना ही है । फिल्मों और नाटकों में आज भी ऐसे दृश्य दिखाये जाते है, जिनका उद्देश्य पुरुषों का मनोरंजन मात्र ही है । प्रस्तुत शोध पत्र का मुख्य लक्ष्य संगीत के क्षेत्र में नारी की स्थिति का मूल्यांकन करना ही नहीं, अपितु यह भी दर्शाना है कि नारी वर्ग को आद्योपान्त (नवाबी काल तक) भेद - भाव के फलस्वरुप किस प्रकार के अवरोधों का सामना करना पड़ा है और किस प्रकार पुरुष वर्ग के शोषण को झेलती रही है । इसके अतिरिक्त इस शोध पत्र में यह भी बताने का प्रयास किया गया है कि किस प्रकार संगीत को माध्यम बनाकर भेद-भाव को बढ़ावा दिया गया जो अब भी जारी है । प्रारम्भ से अब तक संगीत में जो नारी के साथ भेद-भाव हुआ है, उसमें समाज के समृध्द और ऐश्वर्यवान लोगों का विशेष हाथ रहा है, जिन्होने संगीत सेवी महिलाओं को अपने मनोरंजन का साधन बनाया क्योंकि इन संगीतसेवी महिलाओं में अधिकतर निम्न जाति की दासियाँ ही होती थीं, जो उदरपूर्ति के लिए संगीत व्दारा धनी पुरुषों के मनोरंजन का साधन बनती थीं।
वैदिक काल में भेद-भाव : नारी के साथ भेद-भाव का सूत्रात हम हड़प्पा व मोहनजोदड़ो की प्राचीनतम सिन्धु सभ्यता (लगभग ३००० ई.पू. से १५०० ई.पू.) से प्राप्त कांस्य निर्मित नर्तकी की मूर्ति, जिसका शरीर पूर्णत: निर्वस्त है, से मान सकते है। इस मूर्ति से अनुमान लगाया जा सकता है कि सिन्धु सभ्यता में ही नारी का गणिका का रुप प्रारम्भ हो गया था। वैदिक काल भारतीय नारी की सामाजिक एवं सांस्कृतिक प्रतिष्ठा का प्रतीक है । संगीत में आरम्भ से ही नारी का वर्चस्व रहा है, तभी तो सरस्वती को वीणा वादिनी के रुप में चित्रित किया गया है । वैदिक काल में अनेक ऐसी विदूषियाँ रही है, जिन्होंने विभिन्न मण्डलों की ऋचाओं की रचना की है, जिनमें घोषा, लोपामुद्रा, अपाला, विश्ववारा आदि का नाम उल्लेखनीय है । वैदिक समाज में नारी को विकास के सभी अवसर प्राप्त थे । इस युग में नारी शिक्षा की भी समुचित व्यवस्था थी । यज्ञादि में भी़ उनकी भागीदारी थी । ताण्ड्य महाब्राह्मण में स्रियों के यज्ञ में मन्त्रोच्चारण के साथ वीणा बजाने का भी वर्णन प्राप्त होता है:-

## तं पत्यो उपघाटिलाभिरुप गायन्ति <br> अर्व्विडयमेव तत् पत्या : कुर्वन्ति सह <br> स्वर्ग लोक मनोमेति।

यही नहीं, यजमान की सेविकाएँ (दासियाँ) घड़ा उठाये हुये ‘इदं मधु इदं मधु’ का गान करती हुई वर्तुलाकार में नृत्य रुप से परिक्रमा करती थी। इस युग में उच्च व निम्न दोनों वर्गों की स्तियाँ संगीत की शिक्षा प्राप्त करती थीं। तैत्तिरीय संहिता व शत्पथ ब्राह्मण के अनुसार नृत्य और गायन की ललित कलाएँ केवल स्तियों के लिए ही उपयुक्त हैं और पुरुषों के अयोग्य है। वैदिक युग के अन्त तक संगीत कर्म निम्न वर्ग का उपक्रम रह गया था। स्तियों का एक वर्ग गणिका के रुप में तेजी से विकसित होने लगा था। वैदिक युगीन गन्धर्व स्त्रियां, जिनको अप्सराएं कहा जाता था अपनी कला और रुप लावण्य से पुरुषों को आनन्दित करती थीं। विप्रों के लिए गायन, वादन और नृत्य को पूर्ण निषेध कर दिया गया था। इस प्रकार वैदिक युग में भी कहीं न कहों संगीत में महिलाओं के साथ भेद-भाव दृष्टिगोचर होता है।

## पौराणिक काल में भेद-भाव

पौराणिक काल में वैदिक सामगान तथा गान्धर्व गान प्रचलित थे। गान्धर्व गान के लोप होने के बाद मार्ग व देशी प्रचलन में आये। स्त्रियों व्दारा गाया जाने वाला ‘मंगलगान’व ‘जम्बूलमालिका’ हरिवंश पुराण में भी स्पष्ट रुप से मिलता है। विवाह और पुत्र जन्मोत्सव में मंगलगान तथा विदाई गीत की परम्परा आज भी प्रचलित है, जिसमें भेद-भाव सम्बन्धित

प्रसंग दिखाई देते है। हरिवंश पुराण में इन्द्र की सभा की अप्सराओं (गणिकाओं) का भी स्पष्ट वर्णन मिलता है। रम्भा, मेनका और उर्वशी आदि अप्सराओं के नाम मुख्य रुप से लिये जा सकते हैं, जिनमें से मेनका का उपयोग इन्द्र ने विश्वमित्र की तपस्या भंग करने के लिए किया था। पुराण काल के आते-आते नारी के सम्मान का समय समाप्त हो गया था और उसका अप्सरा एवं गणिका रुप प्रचलित होने लगा था। सामगान में स्त्रियों की भागीदारी समाप्त हो चुकी थी। उपरोक्त विवेचन पुराणकाल में भेद-भाव को इंगित करता है।

## महाकाव्य (रामायण-महाभारत) काल में नारी के साभ भेद-भाव

रामायण काल में नृत्य, गायन व वादन के लिए संगीत शब्द का उपयोग होता था। किष्किंधा, लंका और अयोध्या नगरी सर्वदा संगीत से गूँजती रहती थी। सुन्दर काण्ड के २० वें सर्ग में रावण सीता को संगीत का प्रलोभन देकर सवयं को अंगीकार करने के लिए कहता है। मन्दोदरी भी संगीत विदुषी थी। कुशल गायक, वादक तथा नर्तकियों को महल में ही रखा जाता था, जो राजा व दरबारियों का मनोरंजन करते थे।

नृतवादिग्कुशला राक्षसेन्द्र भुजंकगा ।
वराभरणधारिण्यो निषण्णा दहशे हरि।।
अर्थात् हनुमान जी ने देखा कि वस्ताभूषणों से सुसज्जित नृत्य, गायन व वादन में कुशल स्तियाँ रावण की भुजाओं (गोद) में पडी थीं। महाभारत काल में भी रामायण काल की ही तरह नित्य प्रति संगीत का बड़ा ही महत्व था। द्रौपदी स्वयंवर के समय नृत्य-गान आदि का वर्णन प्राप्त होता है। ‘वृहन्नला’ के छद्म वेश में अर्जुन विराट राज की कन्या को नृत्य व संगीत की शिक्षा देता था, जिससे पता चलता है कि उस समय भी संगीत नारी के लिए ही उपयुक्त माना जाता था। अर्जुन ने भी नृत्य और संगीत की शिक्षा इन्द्र की अप्सराओं (गणिकाओं) से ही प्राप्त की थी।

उस समय राजाओं व्दारा नृत्य एवं संगीतशालाएँ बनाने का भी उल्लेख मिलता है, जिनमें बालिकाओं को नृत्य व संगीत की शिक्षा दी जाती थी। राजागण भी संगीत की ध्वनि से ही निद्रित और जागृत होते थे। परन्तु संगीत का व्यवसाय करने वालों को सामाजिक प्रतिष्ठा प्राप्त नही थी। सम्भवतः व्यवसायिक संगीत को निम्नकोटि का माना जाता था। राज्य में कुशल गायिकाएँ, वादिकाएँ व नर्तकियों हमेशा रहती थीं जो राजा के ऐश्वर्य का प्रतीक मानी जाती थीं। इस बात से महाकाव्यकाल में भी यह अनुमान लगाया जा सकता है कि नारी की संगीत में भागीदारी तो थी, किन्तु उसे संगीत के क्षेत्र में सम्मान प्राप्त नहीं था।

## जैन तथा बौध्द-कालीन संगीत में नारी के साथ भेद-भाव

जैन और बौध्द काल ६०० ई. पूर्व के लगभग माना जाता है। इस युग में संगीत जातियता के बन्धन से मुक्त हो गया था। निम्न व शुद्र जाति के लोग संगीत साधना के साथ-साथ संगीत व नृत्यादि का मनोरंजन की दृष्टि से पूर्ण लाभ उठाते थे। इस युग में संगीत को राजाश्र्य प्राप्त था। राजा उद्यन अपनी पत्नी के नृत्य के साथ वीणा वादन से संगति करते थे। संगीत कुशल गणिकाओं को राज्य में विशेष सम्मान प्राप्त था। चम्पा नगरी की गणिकाएँ संगीत तथा वैशिकी कलाओं में पारंगत बतायी जाती है। गणिकाओं के अतिरिक्त नृत्य व्यवसाय करने वाला नर्तकियों का विशिष्टवर्ग भी था, जो गमीण जनता का मनोरंजन करता था। इस काल में संगीत - प्रियता के लिए डोम्ब जाति विशेषतः प्रसिध्द थी। 'मिलिन्दपन्हों' में $१ ६ ० ० ०$ नर्तकियों के नियुक्त होने का प्रमाण मिलता है। विभिन्न पर्वों, मांगलिक एवं सामाजिक कार्यों के अनुसार राज्य की संगीत कुशल गणिकाओं को गायन, वादन व नृत्य के लिए आमन्त्रित किया जाता था। इस काल में राजा अपने कुमारों के लिए भी सुख सुविधा व मनोरंजन के लिए संगीत की विशेष व्यवस्था करता था। ऐसा वर्णन मिलता है कि 'विपस्सी राजकुमार' के लिए उसके पिता ने तीन ऋतुओं के लिए तीन महल बनवाये थे जिनको उसने स्री संगीतकारों से परिपूर्ण कर दिया था। नन्दा, सुनन्दा, अलंबुसा, मिश्रकेशी व पुण्डरीकति आदि इस काल की प्रसिध्द

अप्सराएँ (गणिकाएँ) थीं।
इस काल में नारी को दासत्व भोगना पड़ा बाल विवाह की प्रथा ने कन्याओं की शिक्षा को बन्द करा दिया। इस काल में गणिकाओं का बाहुल्य हो गया था। सामाजिक अवसरों पर गणिकाओं का सांगीतिक आयोजन करना प्रतिष्ठा का विषय बन गया था और इस प्रकार संगीत की तीनों विधाओं पर गणिकाओं का ही वर्चस्व हो गया था। इससे उच्च कुल की कन्याओं की संगीत शिक्षा बन्द हो गयी। इस काल में गणिकाओं को ही सम्भवतः अप्सराओं की संज्ञा दी गयी। अतः स्पष्ट है कि इस काल में भी संगीत के नाम पर नारी कलाकारों के साथ असमानता का व्यवहार किया जाता था।

## स्मृतिकालीन संगीत में नारी के साथ भेद-भाव

इस काल में संगीत मनोरंजन और व्यवसाय का साधन बन गया था, जिससे समाज में संगीत की स्थिति गिरने लगी थी। संगीत का व्यवसाय करनें वालों को हेय दृष्टि से देखा जाने लगा था। सांख्यायन में विवाह के अवसर पर गीत और वादन के साथ नृत्य का भी विधान था। चार या आठ सुवासिनी स्त्रियाँ सुरापान करके समूह में नृत्य करती थीं, जिसका सभी रसास्वादन करते थे। यह भी संगीत के माध्यम से नारी के प्रति भेदभाव का परिचायक है।

## मौर्य कालीन संगीत में नारी के साथ भेद-भाव

चौथी शताब्दी ईसा पूर्व में मौर्य साम्राज्य की स्थापना हुई। मौर्य राजाओं में चन्द्रगुप्त मौर्य और अशोक महान जैसे प्रतापी सम्राट हुए है। इनके काल में साहित्य व कला का अत्यधिक विकास हुआ। मौर्य काल में गणिकाओं को अग्रणी स्थान प्राप्त था। संगीतजीवी गणिकाओं को अनेक उत्सवों पर आमन्त्रित किया जाता था। कौटिल्य ने इस प्रसंग में कहा है कि गायन, वादन, नर्तन व अभिनय करने वाली स्तियों को प्रशिक्षण देने वाले आचार्यों के जीवन निर्वाह हेतु मानदेय का प्रबन्ध राजा स्वयं राजमण्डल से प्राप्त आय में से करे। सुन्दर, युवा और शिल्प सम्पन्न गणिकाओं को राजनर्तकियों के रुप में नियुक्त किया जाता था। वे राजदरबार में मनोरंजन के अतिरिक्त कुशीलव कर्म (गुप्तचर) के लिए भी प्रयुक्त की जाती थी। मौर्य काल तक संगीत भोग विलास का साधन बन चुका था।

## मौर्योत्तर काल

मौर्यकालीन गणिकाओं की सांगीतिक परम्परा अगली कई शताब्द्यों तक अबाध रुप से चलती रही। महाकवि दण्डी ने अपनी पुस्तक ‘दशकुमार चरित’ में उल्लेख किया है कि गणिकाएँ किस प्रकार अपने हाव-भावों से नगरवासियों का चित्तानुरंजन करती थीं। स्मृतिकाल में गणिकाओं की चर्चा मिलती है, परन्तु उन्हें हेय दृष्टि से देखा जाता था। उच्च वर्ग की महिलाओं को संगीत सीखना वर्जित था। मनु और याज्ञवलक्य जैसे स्मृतिकारों व्दारा संगीत को शूद्रजनोचित घोषित किये जाने से संभांत कुलीन नारियों में संगीत के लिए उदासीनता आयी। स्मृतिकारों ने साम संगीत को श्रेष्ठ तथा लौकिक संगीत को निकृष्ट माना है।

## गुप्त काल

इस युग को भारतीय इतिहास में स्वर्ण युग के नाम से जाना जाता है। इस युग में जितनी उन्नति संगीत और साहित्य की हुई अन्य किसी युग में नही हुई। भरत मुनि जैसे प्रकाण्ड विन्दान भी इसी युग में हुए थे। इस युग में काव्योंमहाकाव्यों व नाटकों आदि में स्री को दासी के रुप में समझा जाता था। काव्यों व नाटकों में पुरुषों को संस्कृत बोलने का अधिकार था किन्तु स्त्रियों को प्राकृत भाषा बोलने का अधिकार था। स्त्रियों को शिक्षा के अधिकार से पूर्णतया वंचित कर दिया गया था। इस युग के प्रसिध्द काव्यों व नाटकों में वास्वदत्ता और वसंत सेना कलाविद और ऊंचे दर्जे की गणिका के रुप में चित्रित हुई है। यह युग वास्तव में कामसूत्र के रचयिता वात्स्यायन का था। जिसमें संभ्रांत परिवारों के लोग काम कला का अध्ययन करते थे। देवालयों तक में संगीतोपासना हेतु नर्तक व नर्तकियां नियुक्त की जाती थीं। जो भगवान की आराधना के साथ-साथ दर्शकों का भी मनोरंजन करती थीं।

धनी लोग संगीत व नृत्य आदि कलाओं का आनन्द लेने वेश्याओं के घर जाते थे या उन्हें अपने घर बुलाते थे। संगीतोपासना हेतु नर्तक व नर्तकियों की नियुक्ति की जाती थी। सामाजिक उत्सवों, पर्वों एवं त्योहारों पर संगीत और नृत्य के आयोजन किए जाते थे। ऐसे मनोरंजनों पर कोई राजकीय प्रतिबन्ध नहीं था। समाज में लोक-गीतों का भी खूब प्रचार था, जो स्तियों व्दारा ग्रामीण क्षेत्र में गाए जाते थे। ग्रामीण स्त्रियां मनोरंजन के लिए ऐसे ही गीतों का आश्रय लेती थी। गुप्त काल के दो-ढाईं सौ वर्ष बाद ७१ २ ईं. में भारत पर अरबों के आक्रमण आरम्भ हो गए थे। इसके पश्चात् महमूद गजनवी और मुहम्मद गौरी ने भारत पर आक्रमण किए, जिसके परिणामस्वरुप १२०६ ई.में भारत में दिल्ली सल्तनत की स्थापना हुई। यह समय नारी के आत्म बलिदान की कहानी पर प्रकाश डालता है। इस युग में नारी की दो ही गतियां थीं- घर में बन्ध रह कर चुल्हे-चोके में शरीर झोंकना और खानदान की वृध्दी करना या लोक लाज छोड़ कर कोठों पर नाचना गाना और व्यभिचारियों के लिए शरीर बेचना।

यह कबीर, तुलसी व सूर जैसे कान्तिकारियों भक्त कवियों का जमाना था। इन्होंने भी नारी को ढोल, गंवार, शुद्र और पशु की कोटि में रख कर प्रताड़ना का अधिकारी ही ठहराया। उसे ज्ञान और भक्ति के मार्ग में बाधक ठहराया इस सम्पूर्ण काल में मीरा ही एक ऐसा उदाहरण है, जिसने सामाजिक बन्धनों और अत्याचारों को झेलकर नारी जाति को आशा की किरण दिखाई। दूसरी ओर वेश्याओं तथा देवदासियों के रुप में नारियों ने हमारे संगीत की रक्षा की। जिसे सातवीं शती ई. तक गन्धर्व जाति की अपसराओं और कला सम्पन्न गणिकाओं ने विकसित किया। लेकिन मुगल काल में गाने-नाचने वाली वेश्याओं का वह स्थान नहीं रह गया था, जो उसे पूर्व के समाज में मिला था। मुगल काल नारी की प्राधीनता का जीता जागता उदाहरण है। इस काल में संगीत की उन्नति तो हुई लेकिन नारी के साथ भेद-भाव का क्रम निरन्तर चलता रहा।

## मुगल काल

मुगल काल संगीत का स्वर्णकाल कहा जाता है। मुगल युग बाबर के साथ १५२६ में आरम्भ हुआ। बाबर के समय में किसी अभिजात्य अथवा कुलीन नारी के संगीत में निपुण होने का यद्यपि प्रमाण नहीं मिलता। परन्तु व्यावसायिक ढारी, डेरेदार, डोमनिया वर्ग की स्त्रियां आदि गायन, वादन तथा नर्तन करती थी। इन्हें विवाहोत्सव, पर्व-त्योहारों पर ही बुलाया जाता था। १५३० में बाबर की मृत्यु के पश्चात् उनका पुत्र हुमायुँ राजसिंहासन पर विराजमान हुआ। यह भी संगीतप्रिय था तथा दरबार में गायक, वादक तथा नर्तकों को रखता था। हर्षोल्लास के अवसरों पर गायक-गायिकाओं, वादकों, नर्तकियों के सांगीतिक आयोजन होते थे। रिजवी के अनुसार आगरा में हुमायुँ ने अपनी विजय के उपलक्ष्य में एक मास तक संगीत का आयोजन किया जिसमें स्री व पुरुष संगीतकारों ने अपनी कला का प्रदर्शन किया। महिला संगीतजों में व्यावसायिक वेश्याएं तथा निम्नवर्ग की स्त्रियां थीं जो उत्सवों तथा विशेष अवसरों में भाग लेती थी।

१५५६ में अकबर अपने पिता हुमायुँ के स्थान पर सिंहासन पर बैठा। अकबर शेख सलीम चिश्ती का भक्त था। अकबर ने अनेक गुणी संगीतजों को मुक्त हृदय से प्रश्रय दिया। तानसेन महान संगीतज्ञ के रुप में उनके नवरत्नों में से एक था। अकबर के दरबार में लगभग ३६ प्रमुख कलाकार थे। ग्वालियर के गायकों और वादकों का अकबर के समय में वर्चस्व रहा किन्तु यह आश्चर्य की बात है कि अबुल फजल ने अकबरी दरबार के प्रमुख कलाकारों में किसी महिला कलाकार का उल्लेख नहीं किया। परन्तु ऐसा नही है कि गायन, वादन और नर्तन का अधिकार स्त्रियों को नही था, निम्नवर्ग की स्त्रियों (वेश्याओं, ढारी, डोम, डेरेदार) आदि को था, जो हरमों में अथवा विशेष अवसरों पर अपनी कला का प्रदर्शन करती थी। ऐसा संकेत आईने - अकबरी में मिलता है।

मुगलकालीन सभी राजाओं में सुन्दरियों के प्रति रुचि रही। अकेले आगरा के हरम में ही ८०० स्तियाँ थी जिन्हे राज्य के कोने-कोने से चुन-चुनकर लाया गया था। उनकी अपनी मुस्लिम स्तियाँ तो पर्दे में ही रहती थी तथा उन्हें

सार्वजनिक स्थलों पर मुँह खोलना भी निषेधित था। महिलाओं के लिए परदे के भीतर मीना बाजार लगते थे, लेकिन उन बाजारों में केवल राजा, नवाब तथा कुछ चुने हुए सामन्त अथवा जागीरदार ही पदार्पण कर सकते थे। ये लोग रुपवती नारियों का चुनाव करते थे तथा जो उन्हें पसन्द आती थी उन्हें हरम में बुलाया जाता था। सन्त तुलसीदास इसी समय अवतरित हुए जिन्होने रामचरितमानस में नारी के आदर्शों को दिखाकर नारी को सम्मान दिया।

मुगल दरबार में नृत्य गायन के लिए बड़ी संख्या में स्रियाँ नियुक्त थी। परन्तु ये सभी वेश्यावृति के लिए स्वतन्त्र नहीं थीं बल्कि राज्य-संरक्षण में प्रत्येक को किसी एक अभिजात्य पुरुष के साथ सम्बन्धित किया गया था। वे कलाओं के विशेष प्रशंसक थे। उन्होंने प्रतियोगिताओं को बढ़ावा देकर विभिन्न कलाओं और कलाकारों को प्रोत्साहित किया। इस प्रक्रिया से संगीत का पर्याप्त विकास हुआ तथा संगीत का अस्तित्व सुरक्षित भी रहा किन्तु संगीत की आड़ में जो नारी के साथ भेद-भाव किया गया वह विस्मरणीय है। १६०५ ई. में जहाँगीर राजसिंहासन पर बैठा। वह स्वयं संगीत में अभिरुचि रखते था तथा उन्हें संगीत का पर्याप्त ज्ञान भी था। इन्होंने संगीतजों को अकबर की तरह ही प्रश्रय दिया लेकिन किसी नारी महिला को संगीत में निपुण होने पर पुरस्कृत नहों किया गया।

१६२७ ई. में शाहजहाँ मुगल सिंहासन पर आसीन हुआ। अपने पुत्र औरंगजेब व्दारा बन्दी होने पर भी शाहजहाँ का संगीत प्रेम अक्षुण्ण रहा, गायक-गायिकाओं और नर्तकियों ने उस अवस्था में भी उसके दुख को भुलाया जिन्हें औरंगजेब उसकी सेवा में यदाकदा भेजता था। १९५८ में औरंगजेब सिंहासन पर आरुढ़ हुआ। वह एक कट्र और निर्दयी सम्राट के रुप में जाना जाता है। उसका पालन-पोषण अन्त:पुर के उस वातावरण में हुआ जो विलासिता से पूर्ण था, जहां गायिकाओं की भीड रहती थी और उसकी देखभाल के लिए महिला संगीत निरीक्षिकाएं नियुक्त थी। कुछ प्रमाण औरंगजेब को संगीत विरोधी बताते है। यद्यपि उसने अनेक संगीतजों को राज्य प्रश्रय दिया। रागमाला में संग्रहीत ध्रुवपद उसकी संगीत के प्रति श्रध्दा को प्रमाणित करते है। किन्तु उसके समय की किसी भी संभ्रात परिवार की महिला का नाम संगीत के परिप्रेक्ष्य में नहीं मिलता। यह अवश्य प्रतीत होता है कि वह रुपवती स्रियों के प्रति आसक्त था और उसके ‘हरम’ में संगीत निपुण दासियों का एक समूह था। वह गायन-वादन-नर्तन को विलासिता के साधन के रुप में ही प्रयुक्त करता था।

१७०७ में इसकी मृत्यु हो गई। १७१२ से १७१३ तक में जहाँदार ने सिंहासन सम्भाला। १७१९ में मुहम्मद शाह ‘रंगीला’ ने दिल्ली का शासन सम्भाला। ‘रंगीला’ अपने नाम के समान ही रंगीला था। यह संगीत रसिक ही नहों अपितु संगीत मर्मज़ भी था। उसे अनेक श्रेष्ठ कवियों तथा संगीतनों का सानिध्य प्राप्त हुआ। इन्हों के राज्यकाल में सदारंग, आलम, धनानन्द जैसे संगीतरों को इसका प्रश्रय हुआ तथा सदारंग ने अनेक गायकों, वादकों नर्तक-नर्ताकयों को संगीत के क्षेत्र में उभरने का अवसर दिया तथा ख्याल शैली को नया रुप दिया। मुहम्मद शाह रंगीले ने अनेक संगीतजों को सरंक्षण दिया जिनमें महिला कलाकार नूरबाई, मानी 'चकमक' (रंगीले की प्रेयसी एवं संगीतज्ञा), गुलाब (गायिका एवं नर्तकी), चयनी (गायिका एवं नर्तकी) पन्ना, तन्नों, जीनत, रहमन बाई (कुशल नर्तकी) के नाम उल्लेखनीय हैं। बहादुरशाहर जफर मुगल वंश का अन्तिम शासक सिध्द हुआ। उसे १८५७ ई.में अंग्रेजों ने गिरफ्तार कर रंगून जेल भेज दिया जहाँ १८६३ ई. में उसकी मृत्यु हो गई।

मुस्लिम शासन के अन्तिम दिनों में गणिका समूह पतनोन्ुुख संस्कृति का एक आवश्यक संघटक बन गया था। बड़ी संख्या में संगीतज, कवि शायर, विव्दान तथा तवायफों ने दिल्ली से लखनऊ की ओर प्रस्थान करना शुरु किया। दिल्ली का स्वर्ण युग समाप्त हो गया और ललित कलाएं संगीत, नृत्य तथा शायरी का दीप जब बुझने लगा तब अवध के नवाबों ने उसे प्रश्रय और संरक्षण प्रदान किया। इस राजनीतिक परिवर्तन के पीछे अंग्रेजों की कूटनीति थी। फलत: सआदत अली ने आधा प्रान्त अंग्रेजों को भेंट स्वरुप दे दिया। कर आदि बढ़ाने से जनसाधारण को आर्थिक कठिनाईयां

झेलनी पड़ी। पंजीकृत कर्नल बेली ने अपना आर्थिक स्वार्थ सिध्द करने हेतू तथा मिर्जा जाफ्र के अनुरोध को दृष्टिगत रखते हुए मिर्जा रफत उल्लाह को १४ अक्तूबर १८१४ को अवध की नवाबी दे दी। उसके समय में विलासिता अपने उत्कर्ष पर थी। गाजीउद्दीन रास रं में डूब गया। गाजीउद्दीन अपनी विरासत में मिली सम्पत्ति को विलासिता और भवन निर्माण पर उडा रहा था उसके महल में मुबारक महल, पश्चिम में बेगम, मुमताजमहल तथा सुरफराज महल आदि बेगमों ने उसे विलासिता में डूबो दिया।

गाजीउद्दीन का पुत्र नसीरद्दीन हैदर था। बादशाह बेगम ने नसीरुद्दीन के लिए सुख-सुविधाओं और विलासिता की वस्तुओं का अम्बार लगा दिया। विलासिता के नाम पर उसके चारों तरफ तवायफों का समूह रहता था तथा वह अपनी युवावस्था में श्रृंगारिकता के अथाह समुद्र में डूब गया। १८३७ में नसीरद्दीन की मृत्यु के पश्चात ३९ वर्षीय नसीरद्दीला को अवध का नवाब बना दिया गया। नसीरुद्दीला की मृत्यु के बाद १८४२ में ‘अमजद अली’ नवाब बने। वह विव्दानों संगीतजों एवं शायरों का सम्मान करता था। अमजदअली की १८४७ में मृत्यु हो गई। तब वाजिदअली शाह अवध के नवाब बने। २५ वर्ष की उम्र में ही वह सुन्दर स्त्रियों के प्रति आकर्षित रहते थे। वाजिद अली शाह स्वयं एक संगीत मर्मज और संगीतज्ञ थे। संगीतज के अतिरिक्त वह एक अच्छे शायर तथा गीतकार भी थे। उनके समय में संगीत को जो खुला परिवेश मिला और जो संरक्षण मिला वह सम्भवतः किसी अन्य काल में नही मिला। संगीत की तीनों विधाओं गायन-वादन-नर्तन को आशातीत प्रगति तथा लोकप्रियता मिली। इनके समय में कथक नृत्य की लोकप्रियता अत्याधिक बढ़ गई थी।

वाजिदअली शाह ने पुराणों आदि से कृष्ण सम्बन्धी अनेक कथानकों को अपने संगीत का आधार बनाया। पौराणिक रास को उसने ‘रहस’ कहा जिसमें वह स्वयं भी कन्हैया की भूमिका निभाता था। रहस सर्वप्रथम जोगिया जश्न में रचाया गया था। जिसमें १५० सुन्दर युवतियों के बाजुओं पर परियों जैसे पंख लगाए। हृष्ट-पुष्ट पुरुषों को देव बनाया जाता था जो गाते और वादन करते थे। उसने स्वयं रहस का परिचय देते हुए कहा है कि ‘रहसधारी’ नाच-गाने का एक स्वांग है जिसकी हिन्दू मजहब में इबादत की जाती है। रहस में प्रथम बार कत्थक का प्रयोग किया गया। वाजिदअली शाह ने यूंतो अनेक संगीत सम्बन्धी पुस्तकें लिखी परन्तु ‘नाजो’ और ‘बनी’ विशेष महत्व की है। बनी में ३२ प्रकार के नृत्यों की चर्चा है। इन ३२ प्रकारों के नृत्यों को पुनः दो भागों में विभाजित किया गया है। बनी में नृत्य करने वालियों को २२ श्रेणियों मे रखा गया है। परियों को संगीत का प्रशिक्षण देने के लिए अनेक वेतनभोगी संगीतजों को नियुक्त किया था। जान-ए-आलम में इसका विवरण है। इस समस्त् विवरण से स्पष्ट होता है कि नवाब वाजिद अली शाह ने अपने समय में महिलाओं को संगीत की तरफ उन्मुख किया भले ही उनका स्तर वेश्याओं का था। वेश्याओं का संगीत में वर्चस्व होने के कारण उस समय समाज की महिलाओं को संगीत से दूर रखा गया।

अपनी विलासिता की तृप्ति के लिए उसने परीखने की नींव डाली और नाच-संगीत के माध्यम से उनकी मादकता का पान किया। उसके परखने में अच्छी आवाज वाली, रियाजदार, गुणवंती लड़कियां दाखिल होती थीं जिनको कुछ पारंगत परियाँ नाच गाना सिखाती थी। इस परीखने की दरोगा बजमुलासिया थी जिसके साथ अठारह अफसर परियां थी जिन्हे ‘हजूरवालिया’ कहा जाता था। अम्यन और अभ्यान नाम की दो कुटनी औरते थी जो देश विदेश से लड़कियों को लाती थी। परीखनों में संगीत सिखाने वाले उस्तादों और साजिन्दी के अतिरिक्त अन्य कोई प्रवेश नही कर सकता था। वाजिद अली भी स्वय उन्हें गायन और सितार की शिक्षा देते थे।

नृत्य की दृष्टि से वाजिदअली शाह का समय उत्कृष्ट था। वाजिदअली शाह का नृत्य प्रशिक्षक दुर्गा प्रसाद था, उनके पुतों कालका और बिन्दादीन भी नृत्य के अव्दितीय कलाकार रहे। परीखने की मोती खानम नाचने गाने में दक्ष थी। जहान नाम की डोमनी की पुत्री गुलबदन की आवाज तथा रुप रंग पर मोहित होकर नवाब ने उसे परीखने में रख लिया

जिसका शाही नाम माशूक परी था। सुल्ताने आलम ने उससे ‘निकाह’ किया था। अब उसे माशूक महल कहा जाने लगा था। उमराव नाम की नृत्यांगना का नाम ‘सिकन्दर महल’ रखा। रक्शपरी नाम की एक डोमनी को नवाब सल्तनत महल बना दिया। इन समस्त परियों के नृत्य संगीत से परीखना गुंजित रहता था। ये परियां या तो वेश्याऐं थी या निम्न जाति की स्तियां। संगीत के क्षेत्र में मिरासियां और डोमनियां ही अधिक थीं। वाजिद अली ने लखनऊ को १८५६ में अलविदा कहा और कलकत्ता चले गए। वहाँ भी उनका स्तियों के प्रति आकर्षण बना रहा। मोतिया बुर्ज में संगीत और विलासिता का यही क्रम जारी रहा। १८८७ में उनके देहान्त के साथ ही संगीत का अध्याय भी बन्द हो गया। नवाबी दौर का यह काफिला यहों पर रुक गया। वाजिदअली के समय में स्त्रियों को संगीत की शिक्षा तो दी गई, परन्तु उनका स्थान एक तवायफ का ही रहा।

मुगल काल में कितने ही राजा महाराजा हुए, जिनकी संगीत में रुचि भले ही कम या अधिक रही, परन्तु नारी के रुप लावण्य पर हर एक राजा मोहित रहा तथा उसे अपनी वासना का शिकार भी बनाया। वे रुपमती स्तियाँ चाहे संगीत में दक्ष थीं लेकिन उनकी कला का आकलन केवल उनके रुप रंग से किया गया। संभ्रान्त परिवार को संगीत में रुचि रखने वाली स्त्रियों को भले ही कही - कही आदर मान दिया गया लेकिन निम्न जाति की नारियों को हमेश वेश्यावृति तथा पुरुषों (राजा महाराजों) के व्दारा अपनी वासना का शिकार बनाया गया। मुगलों के बाद ईस्ट इंडिया कम्पनी का शासन आया। मध्यकाल में राजदरबारों में संरक्षण प्राप्त भारतीय संस्कृति तथा कलाएँ अंग्रेजों के समय में यद्यापि समाप्त होने लगी। इस काल में संगीत सम्बन्धी अनेक ग्रन्थों की रचना भी हुई। इसी काल में विष्णु नारायण भातखण्डे तथा पं.विष्णु दिगम्बर पलुर्कर जैसे महान संगीतज हुए, जिन्होंने अपना सारा जीवन संगीत के प्रचार-प्रसार में लगा दिया तथा भारतीय संगीत में पनप रहे भेद-भाव को मिटाने का प्रयास किया।
आधुनिक काल : स्वतंत्रता के पश्चात् भारत में संगीत का प्रचार प्रसार दुतगति से हुआ और देशभर में विभिन्न संगीत समारोह तथा संगीत गोष्ठियों का आयोजन होने लगा। भारत के सांगीतिक पुनरूत्थान के प्रति जागरुक संस्थाओं ने कलाकारों को सम्मानित तो किया किन्तु पुरुष के मुकाबले महिलाओं की संख्या बहुत कम रही। लड़के और लड़कियों को समान रुप से संगीत शिक्षा ग्रहण करने का अधिकार है और संगीत की कक्षा में लड़कियों की संख्या भी अधिक है। परन्तु कलाकार अधिकांश लड़के ही बनते है। क्योंकि लड़के घरानेदार शिक्षा ग्रहण करने के लिए स्वतंत्र परन्तु लड़कियां किंचित नहीं। ऐसी शिक्षा के लिए गुरु के पास जाना पड़ता है और कई अभिभावक आज भी अपनी लड़कियों को गुरुओं के पास शिक्षा ग्रहण करने के लिए भेजने में संकोच करते है। आज समान अधिकार प्राप्त होने वे बावजूद भेद-भाव विद्यमान है।

संगीत चाहे शास्तीय हो या सुगम या फिर चित्रपट संगीत नारी को उन्हें प्रस्तुत करने के लिए आज भी अनगिनत कठिनाईयों से गुजरना पड़ता है। हर कदम पर उसे भेद-भाव का सामना करना पड़ता है ऐसा देखा गया है कि यदि किसी स्री व्दारा नृत्य कला का प्रदर्शन किया जा रहा हो तो वहां पुरुषों की संख्या अधिक नजर आएगी और उनकी दृष्टि में नारी नर्तकी कलाकार कम और रुपसी अधिक होती है। फिल्मों में भी नारी कलाकारों को ख्याति प्राप्त करने के लिए आज भी अपने मान सम्मान को दाव पर लगाना पड़ता है और उन्हें निर्देशक ही हर इच्छा को पूरा करना पड़ता है। जबकि पुरुष कलाकारों के लिए ऐसी कोई बंदिश नहीं होती।

आज स्वतन्त्र समाज में नारी सामाजिक राजनीतिक क्रिया कलापों में भले ही बढ़-चढ़कर हिस्सा लेने लगी है और संभांत परिवारों की महिलाओं ने संगीत की शिक्षा लेनी शुरु कर दी है लेकिन नारी जगत में यह बदलाव केवल मध्यवर्ग में दिखाई देता है, निम्न वर्ग की महिलाएं आज भी भेद-भाव का शिकार बनी हुई है। संगीत की उच्चतम शिक्षा प्राप्त करने के बावजूद भी आज नारी पुरुष की बराबरी का दर्जा प्राप्त करने में कठिनाईयों से जूझ रही है। इक्कीसवी

शताब्दी प्रारम्भ हो चुकी है, परन्तु फिर भी कन्याओं की भूरण हत्या हो रही है। भेद-भाव का यह उपकर्म तेजी से बढ़ता जा रहा है। कहने को लड़की लक्ष्मी व सरस्वती है किन्तु पुरुष पुत्री रुप में उसें स्वीकार नहीं करना चाहता।
निष्कर्ष:- उपरोक्त अनुशीलन से यह स्पष्ट हो जाता है कि वैदिक काल में संगीत के परिप्रेक्ष्य में नारी वर्ग को जो स्वतंत्रता और प्रतिष्ठा प्राप्त हुई थी वह धीरे-धीरे क्षीण होती गयी और राजा-महाराजाओं ने नारी वर्ग को मात्र एक मनोरंजन और वासना की पूर्ति के साधन के अतिरिक्त कोई अन्य स्थान नही दिया। भेद-भाव के नाम पर पुरुषों को जो सामाजिक दायित्व मिला नारी वर्ग उससे पूर्णत: वंचित रहा और उसे एक कठपुतली के रुप में शोषित किया जाता रहा है तथा लिंग-भेद का यह उपक्रम निरन्तर गति से आज भी किसी न किसी रुप में समाज में व्याप्त है। परन्तु अगर हम संगीत और संस्कृति का गहनता से विश्लेषण करे तो हमें इसमें उच्च संस्कार सहज दिखाई पड़ जाते है। हमारी संस्कृति में संगीत को अति पवित्र स्थान प्राप्त था, परन्तु समय-समय बाहर से आई कुछ संस्कृतियों के प्रभाव के कारण इसमें विकृति आगई। जिसने संगीत से जुड़ी हुई नारियों को अधिक प्रभावित किया। अतः इस प्रकार की बुराइयों को समाज से मिटाने का प्रयास समाज के कर्णधारो को करना चाहिए। ताकि समाज में नारी और संगीत को सम्मानीय और उच्च स्थान प्राप्त हो सके और हमारा समाज व संस्कृति उच्च शिखर की ओर अग्रसर हो सके। नारी के साथ हो रहे भेद-भाव को मिटाने के लिए सरकार के व्दारा भी ठोस कदम उठाए जाने चाहिए।

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# Studies on fungal diseases severity on leaves of Adhatoda zeylanica Medic 

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#### Abstract

: Adhatoda zeylanica Medic is an important medicinal plant used in traditional as well as modern systems of medicines. Its leaves are used either alone or in combination with other drugs, for preparation of expectorant. It belongs to family Acanthaceae. Adhatoda zeylanica is commonly called as Adusa, Adulsa and Malabar nut.

It is a dense shrub with opposite leaves, stem is yellowish in color, terete and glabrous. Leaves are elliptic, lanceolate, acuminate, puberous and green. Flowers are arranged in spike inflorescence.

Adhatoda zeylanica is used by Ayurvedic physicians due to important medicinal properties. Leaves are used in rheumatism, gonorrhea and cough. Dried leaves are used in cigarette preparation, against asthma, diarrhea and dysentery. Flowers improve circulation of blood and used in bronchitis, ophthalmic and antispasmodic quantities. Roots are diuretic useful in bronchitis, asthma, vomiting, sore eyes, gonorrhea and malarial fever. Whole plant is also used in excessive phlegm, snake bite, loss of memory, leucoderma, jaundice, tumors, leprosy, blood impurities, thirsts, heart troubles and diseases of mouth, it is also reported as expectorant (1).


As this plant have considered for many medicinal properties. Hence, attempts has been made to know the important fungal diseases and their severity viz., responsible for decrease in yield.

Methodology: The study of fungal diseases was carried out by isolation, purification and identification of fungal pathogens as per the methods given by Dingra and Sinclair 1995 (3). Fresh leaves of Adhatoda zeylanica showing nacrotic brown spots were collected. Infected leaves were used in the form of bits of $1 \times 2 \mathrm{~mm}$ from necrotic area of location. $20 \%$ alcohol and aqueous solution of $0.1 \% \mathrm{HgCl} 2$ was used for surface sterilization of leaves. Further, leaf bits were washed by giving three changes of sterile distilled water to remove traces of alcohol and HgCl 2 and dried on blotter paper . These bits were inoculated on solidified PDA media in petriplates under aseptic condition. These plates were incubated at $27 \%$ for 8 days. Well developed fungal pathogens mycelial growth was obtained. Pathogens were purified by single hyphal tip method (3).These purified pathogens were transferred on PDA slants for further studies. The different fungal pathogens and diseases were identified by referring standard literature i.e. Mukadam D.M.(8).

Pathogenicity was proved by simple detached leaf technique (SDI).For this purpose well developed leaves were sterilized using $70 \%$ absolute alcohol and
given four washings in distilled water. The leaves were placed on moist filter paper in petriplates in such a way that the dorsal side of the leaflets was exposed to inoculation. Fungal pathogen cultures were applied to the leaves with the help of zero number brush and inoculated leaves were incubated for seven days at 27 ${ }^{\circ} \mathrm{C}$ and then exposed to normal laboratory condition. Periodical watering was done to maintain wetness and turgidity. These inoculated leaves show the same symptoms from where it were isolated. For the determination of disease severity index (DSI) 5 point scale was used (4). For this purpose, 100 leaves were collected from bottom, middle and top region of the plant and categorized into five groups on the basis of the present infection i.e., $0,1-25,26-50,51-75,76-100 \%$ respectively.

DSI in Parbhani district was studied in three seasons i.e., winter, summer and rainy in year 2008-09 by using following formula and ratings as shown below:

$$
\sum \text { of all ratings } \times 100
$$

Disease Severity Index (DSI) $=$

$$
\text { No. of observations } \times \text { (all ratings-1) }
$$

Findings : On the basis of culture, character, reproductive structures and symptoms, the different fungal pathogens and diseases are identified as follows: Alternaria alternata (leaf spot) : The pure culture appears violet to blackish color on PDA medium. Microscopically, mycelium is short, septate, branched, light brown, violet colored. The colonies are wolly. Condiophores dark, broader than hyphae with geniculations. Conidia are muriform. Leaves shows brownish to blackish spots over its surface.
Colletotricum capsici (Anthracnose) : The fungus shows whitish velvet like structure. The mycelium is septate and branched. Conidia are hyaline, single and rarely chained. Leaves shows characteristic symptoms with limited lesions.
Aecidium adhatodae (leaf rust) : Aecidium is found on the undersurface of leaves. It forms crowded round to orbicular spots i.e., 2-5 mm in diameter on culture medium. It appears in grayish color. Aeciospores are liberated by rupture of epidermis.
Phoma vasicae Shreemali (leaf spot) : On culture plates it appears as spatches of dark black color with wavy outline. Generally, it occurs on the dry stem but rarely found on green leaves. Conidia area unicellular sourounded by slim layer of appeandages. On leaf it shows symptoms as wholes and leaf spots.
Table 1 : Fungal Disease Severity Index of Adulsa (Adhatoda zeylanica Medic)
of Parbhani district in year 2008-09.

| Sr. <br> No. | Grade <br> $\%$ | Grade Infection |  |  | \% Infection |  |  | Disease Severity |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Summer | Rainy | Winter | Summer | Rainy | Winter | Summer | Rainy |  |
| I |  | 54 | 57 | 49 | $54 \times 0$ | $57 \times 0$ | $49 \times 0$ | 00 | 00 | 00 |
| II | $1-25$ | 27 | 26 | 28 | $27 \times 1$ | $26 \times 1$ | $28 \times 1$ | 27 | 26 | 28 |
| III | $26-50$ | 10 | 09 | 11 | $10 \times 2$ | $09 \times 2$ | $11 \times 2$ | 20 | 18 | 22 |


| IV | $51-75$ | 09 | 08 | 10 | $09 \times 3$ | $08 \times 3$ | $10 \times 3$ | 27 | 24 | 30 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| V | $76-100$ | 00 | 00 | 02 | $00 \times 4$ | $00 \times 4$ | $02 \times 4$ | 00 | 00 | 08 |

DSI of Parbhani in Winter = 18.5 \%
DSI of Parbhani in Summer $=17 \%$
DSI of Parbhani in Rainy Season $=22$ \%
These pathogens are responsible for causing diseases. Disease severity was studied which shows variations in different seasons. Disease severity was found more in rainy season as compared to winter and summer seasons. The fungal diseases are responsible for decrease in yield of plant.
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# Comparative Study of Physical and Physiological Parameters of Active and Sedentary Women 

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## Introduction

Discrimination against women especially in case of sports participation is done many times. When talking of physical activity and sports participation, the females in earlier times were thought to be less suited for such activity. But it is pleasing to note that such practices have changed to a great extent especially in other countries. However, in India too the scenario is changing. Today more number of female athletes are taking part in the competitive sports. In spite of the gender discrimination in the world of sport, there is a growing movement towards emancipation. The term athlete is meant to refer equally to men and women.

We consider Health to be simply the absence of disease. Today we view it also as the presence of vitality - the ability to function with vigor and to live life actively, energetically, and fully. Vitality comes from wellness, a state of optimal physical, emotional, intellectual, spiritual, interpersonal, social, environmental, and even planetary well-being. At all ages and at all levels of physical and mental ability, people can increase their vitality and wellness.

Technological advances have made our lives increasingly inactive and sedentary; we drive car, ride escalators, watch television, and push papers around at school or work. Growing evidence points to lack of physical activity as a prime contributing factor to the array of perplexing degenerative diseases we now see in our society - heart disease, cancer, stroke obesity, diabetes, and hypertension, among others. Research concluded that exercise and physical activity are good for our health.

The intention of this study is to know the general fitness condition of women. Most of the women prefer to live a sedentary life than exercising. But they are not aware of the importance of physical activity and its physical advantages like strength gaining, improving range of motion, having proper body composition conditions like waist-hip ratio, body mass index, reduction of excessive fats etc. and physiological benefits like B.P, and proper resting heart rate. These all advantages have long-term positive impact in the later age.

More often active women live a better healthy life than a sedentary women in all above parameters. But whether these active women can keep these parameters better for a long time as compared to sedentary women?. This study is an attempt to draw a practical conclusion regarding this comparison. So for this study, it is hypothesized that active women are superior in selected physical and physiological parameters than sedentary women. They are also superior in case of body composition.

For the purpose of this study, total 80 women subjects of Nagpur were selected, from which 40 subjects were sedentary and 40 subjects were active.

Here, Sedentary means the women subjects who have never played a competitive sports and never took part in any kind of sports activity. The concept Active means the women subjects who actively took part in competitive sports and represented at least inter-clubs and/or inter-university competitions. Selected age group was 20 to 25 completed years. They all have been tested on the parameters like Physiological parameters i.e. Resting heart rate, Respiratory rate, Blood pressure, Physical parameters i.e. AAHPERD 1 min. sit-ups, Grip Strength, Sit \& reach.

## Analysis

The data was collected and analyzed with 't' test. The level of significance was set at 0.05 level of confidence and presented in Table- 1 to Table-6.

## Table 1

Table Showing the comparison between the means of Active and sedentary women test scores of Resting Heart Rate on the basis of 't' ratio.

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 68 | 75 | 7 | 1.767 | 3.961 <br> $*$ | 1.99 |

## *Significant

Table 1 reveals that :
The mean values in case of Resting heart rate of Active and Sedentary women were 68 and 75 respectively. Thus, the difference between the means was 7 .

In case of Resting Heart Rate, the difference was found statistically significant at ' t ' test. The ' t ' ratio obtained in respect of Resting Heart Rate was 3.961. For the mean difference to be significant at 0.05 level of confidence, the ' t ' value to be obtained should be greater than 1.99.
Table 2
Table Showing the comparison between the means of Active and sedentary women test scores of Respiratory Rate on the basis of 't' ratio.

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 18.5 | 20.25 | 1.75 | 0.727 | 2.409 <br> $*$ | 1.99 |

*Significant
Table 2 reveals that :
The mean values in case of Respiratory rate of Active and Sedentary women were 18.5 and 20.25 respectively. Thus, the difference between the means was 1.75 .

In case of Respiratory Rate, the difference was found statistically significant at ' t ' test. The ' t ' ratio obtained in respect of Respiratory Rate was 2.409. For the mean difference to be significant at 0.05 level of confidence, the ' t ' value to be obtained should be greater than 1.99.
Table 3 (a)

Table Showing the comparison between the means of Active and sedentary women test scores of Blood Pressure on the basis of ' t ' ratio.
Systolic

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 113.85 | 111.275 | 2.575 | 1.905 | 1.352 | 1.99 |

Diastolic (b)

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 70.15 | 68 | 2.15 | 1.884 | 1.141 | 1.99 |

Table 3 (a) \& (b) reveals that :
The mean values in case of Systolic Blood pressure of Active and Sedentary women was 113.85 \& 111.275 and Diastolic was 70.15 and 68 respectively. Thus, the difference between the means was 2.575 of Systolic and 2.15 of Diastolic.

In case of both Systolic \& Diastolic Blood Pressure, the difference was not found statistically significant at ' t ' test. The ' t ' ratio obtained in respect of Active women was 1.352 of Systolic and 1.141 of diastolic. For the mean difference to be significant at 0.05 level of confidence, the ' t ' value to be obtained should be greater than 1.99.

## Table 4

Table Showing the comparison between the means of Active and sedentary women test scores of AAHPERD 1 min . Sit-ups test on the basis of ' t ' ratio.

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 25.4 | 16.85 | 8.55 | 2.312 | 3.698 <br> $*$ | 1.99 |

## *Significant

Table 4 reveals that :
The mean values in case of AAHPERD 1 min . sit-ups test of Active and Sedentary women were 25.4 and 16.85 respectively. Thus, the difference between the means was 8.55 .

In case of AAHPERD 1 min . Sit-ups test , the difference was found statistically significant at ' t ' test. The ' t ' ratio obtained in respect of AAHPERD 1 min . Sit-ups test was 3.698 . For the mean difference to be significant at 0.05 level of confidence, the ' t ' value to be obtained should be greater than 1.99.

## Table 5

Table Showing the comparison between the means of Active and sedentary women test scores of Grip Strength test on the basis of 't' ratio.

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |


| 24.25 | 22.4 | 1.85 | 0.973 | 1.901 | 1.99 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Table 5 reveals that:
The mean values in case of Grip Strength test of Active and Sedentary women were 24.25 and 22.4 respectively. Thus, the difference between the means was 1.85.

In case of Grip Strength test, the difference was not found statistically significant at 't' test. The ' t ' ratio obtained in respect of Grip Strength test was 1.901. For the mean difference to be significant at 0.05 level of confidence, the ' t ' value to be obtained should be greater than 1.99.
Table 6
Table Showing the comparison between the means of Active and sedentary women test scores of Sit \& Reach test (Flexibility) on the basis of 't' ratio.

| M1 <br> Active women | M2 <br> Sedentary women | D.M | S.E | 't' <br> ratio | Required <br> 't' value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 11.94 | 8.775 | 3.165 | 1.395 | 2.268 <br> $*$ | 1.99 |

*Significant
Table 6 reveals that :
The mean values in case of Sit \& Reach test of Active and Sedentary women were 11.94 and 8.775 respectively. Thus, the difference between the means was 3.165 .

In case of Sit \& Reach test (Flexibility), the difference was found statistically significant at ' t ' test. The ' t ' ratio obtained in respect of Sit \& Reach test (Flexibility) was 2.268. For the mean difference to be significant at 0.05 level of confidence, the ' t ' value to be obtained should be greater than 1.99 .

## Discussion of findings

There is no significant difference found in the parameters like Blood pressure(systolic \& diastolic) and Grip Strength . But there is significant difference found in the parameters like Resting heart rate, Respiratory rate, , AAHPERD 1 min . sit-ups and Sit \& reach .
Conclusions
Active women are superior in parameters like Resting heart rate, Respiratory rate, AAHPERD 1 min . sit-ups, Sit \& reach than sedentary women.

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# Communication and Globalization: Interdependent Concepts 

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Communication: Historical Perspectives : Communication is a process that started perhaps even before we know how to write or spell the word "communication". Communication is perhaps dated back to the advent of life itself. What evolved from simple body language or ancient pictorial messages carved on rocks metamorphosed into rather evolved channels of communication like the telephone, television and off course the world wide web that brought the world as close as it could get!

Although various complex theories and principles exist, communication can be simply defined as a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior. (Obviously the term is not limited to human beings because animals Have their own modes of too!) Here is an attempt to trace back the origins of communication.
Body Language: A friendly handshake, a gracious smile or even a warm hug. Body language is communication through simple body gestures. The time of emergence of body language cannot be precisely or accurately calculated or calculated. However the use of body language as means of communication has always been compared to communication modes used by animal.
Speech: The available fossil evidence hints that modern adaptations for speech appeared somewhere between 1.5 million and 500,000 years ago. The dynamics of evolution of speech acquisition is complex since it is influenced by factors like culturally transmitted sounds and genetic volution.
Writing: The history of writing dates back to the various writing systems that evolved in the Early Bronze Age (late 4th millennium BC) out of Neolithic protowriting. The evolution of writing is said to have evolved from proto-writing which means pictorial messages /symbols/scribbles that cannot be called "actual writing". For convenience we will classify the evolution of writing into the following sub-categories:

- Symbols
- Cave Paintings
- Petro glyphs/ Rock Carvings
- Pictograms
- Ideograms
- Writing


## Other Benchmarks in the History of Communication:

- Invention of the Radio
- Invention of the Telephone
- Invention of the Television
- Invention of the first Computer
- Invention of the Internet

Communication Growth and Globalization : The 21st century has ushered in a new era in man's ongoing quest for a better life and a better world. For the first time in history, we can now claim to live in "One World." Globalization has removed many of the gaps that have existed between and among nations. While the physical divide is still present, the impact of the Information Highway on how we communicate and live in the present day is simply staggering. Through globalization, cultural exchange is now open and dynamic. Economies have also been merged, with the economic life of a $n$ Asian country affecting other nations in other parts of the world, and vice versa. Rapid improvements in information technology have allowed us to exchange information and communicate almost everywhere, anywhere, and anytime. The nature of business and how it is done had also improved by leaps and bounds all because of globalization.

An example of the remarkable effects globalization is the invention of the telephone and the television. Television has enabled young people and adults to have the ability to share cultural and ethnic experiences with others. The TV. has allowed generations of people to see how other people live, think and feel in other parts of the globe. In full color, we can now "meet" new peoples and cultures without even having to take a single step outside our home. With just the use of a remote, right in the comforts of our own home, we can explore different worlds that we would not have known without the visuals and sounds transmitted through our TV. Telephones have also greatly improved communication. Gone are the weeks and even months of waiting for that letter. Anybody can talk to anyone who has another phone regardless of distance or location in the planet. With the aid of satellites, 3rd generation phones allow us to make a phone call, send a video, or even receive an e-mail. Because of these developments in the field of communications technology, now, no two countries are really apart. These breakthroughs in communication have revolutionized business, commerce, and even the personal lives and relationship so millions of people.

Indeed, globalization has spawned a new age of connectivity in culture, society, economy, social life, technology, and politics. Globalization, as a general term, is best understood as the spread of ideas about the environment, democracy, human rights, and less complicated issues like fashion and fads. The mass marketing of computers and the wide availability of Internet services have brought many parts of the world together, as if we are all woven on a single pattern or web of daily life. Countries today do not just export raw materials or the usual projects. Global exchange is now taking place as the market of ideas, culture, and beliefs expand through the use of technology.

Because of the electronic media, vast amounts of important information can reach any parts of the globe in no time. Business establishments, whether big or small, are using the Internet in many ways to build or expand their company's growth. With the ever improving technology comes new markets, for products, and also greater competition. Making investments in information and communication technology is now a must for any business enterprise.

Another form of improved technology is the fusion of the Internet and the fax machine, giving birth to Internet faxing. Internet faxing is faster and more economical than traditional faxing. It is a general term which refers to the convenient use of faxing technology over the Internet. It is a method of using email or a particular website like FREEiFAX that offers internet faxing services. FREEiFAX has combined the speed and efficiency of e-mails and the low cost sending or broadcasting documents. Through e-mails, these faxes are sent faster and frees the subscriber from the time-consuming task of making several phone calls to check if the transmitted documented actually got through. This kind of service enables business companies to save time and money. Additionally FREEiFAX Internet faxing does not require the purchase of another device, accessories or any additional configuration or phone lines. All that is needed is a computer with an Internet connection and an e-mail account.

To avail of this Internet faxing service, all one has to do is visit the FREEiFAX site and sign-up. By signing up, consumers are allowed to gain access to incoming and outgoing fax messages. These messages are accessible in most parts of the world where there is Internet connection. FREEiFAX Internet faxing can be enjoyed without having to pay monthly bills. A minimum reload of $\$ 5$ is required to keep an active account and send fax messages for only 2.5 cents per send. FREEiFAx is one of Internet faxing companies preferred by many individuals around the world. It boasts of thousands of satisfied users around the world.

Many economists claim that globalization and the Internet have created many advantages for small and medium-sized businesses around the world. This advantage can be utilized while avoiding many business obstacles by using Internet faxing properly. Visit freeifax.com for more details about the company and other Internet faxing needs.
Integration of communication \& Globalization : Communication means the process through which people can express their inner feelings by using different medium. Let's turn into the history at that time also people used to talk not in a word like today's. The mode of human communication has been changing with the changes in human society by including the development of technology.

Initially people started to talk with themselves which consists thoughts, emotions and feelings. Then it change into interpersonal communication. The thoughts, feelings or emotions which are processed in the brain must be expressed to another person. So, it is the communication between two persons physically located in the same place. It may also occur if they are physically separated too. The development form of interpersonal communication is group communication where groups came in many sizes and are organized in a great variety of ways. The larger the group the less personal and intimate possibility of sharing. Group form in order to be organizational communication. It has more participants as compared to group setting which creates more complexes too. To get over those complexes mass communication come. Though initially it is taken
in a negative way. But today it transmits or delivers the message to huge mass at a time by using various mass media.

Communication and Globalization are inseparable with each other as they have close relationship. Here, Globalization means 'the name that is often used to designate the power relations, practices and technologies that characterize and have helped bring into being, the contemporary world. The person who has termed or coined the word as a 'GLOBALIZATION' is Marshal McLuhan. According to him, he has viewed mass media as the extension of human body. That has an implied meaning i.e. media do not bring the world to us but rather permit us to experience the world with a scope and depth. Just like a clothes are extension of our skin.

Today we are very familiar with the word 'Globalization'. Today it occupies huge area where there is no any limitation. As a result it makes the world as a small village. When we talked about globalization the first thing that come in our mind is the use of modern effective technology. It is only because of globalization that people are not stick within their cultures only rather they prepare globalized cultures as it is being the part of human life.

According to the society's point of view they think we have reached in 'GLOBAL COMMUNITY' or global society. But from the perspective of communication's we are reached in 'MASS COMMUNICATION OF GLOBAL SCALE'. In a same way from media's point of view' it is the journey from local to global media.

It is not easy to come from ancient time to today's' modern Age. There are various difficulties on the way of development. Though technology helps to come over time and space. It is the globalization which has made possible to establish human structure. It has affected media and vice versa. At present the communication is from local to international. Various agenda are setting by media. Our knowledge is mediator. Our reality is known by media. It is a factor which brings people closer not only physically but also emotionally. There is a famous saying that' Think Globally, act locally'. Globalization always encourage people to think globally it has no any limitation. It is the process that fitfully brings various elements of world society together. It integrates and democratize the world's cultures, economy and infrastructure through transnational investment rapid proliferation of communication and information technologies and the impacts of free-market forces on local, region; and national economies.

In a nutshell, communication and globalization are inter related with each other. It may have negative aspects along with positive aspects too. But we have to see the positive aspects rather than negative as it is the multi- dimensional process.
Conclusion : Communication and Globalization are inseparable with each other as they have close relationship in fact globalization and the communication through Internet have created many advantages for small and medium-sized businesses around the world. The globalisation becomes faster due to vatal
support of communication as a media of mutual transfer, share, and exchange of thoughts all over the world.

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# Effect of Physical Activity Programme on Health Related Physical Fitness Components of Age Groups 11 And 12 Years School Going Boys. 

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#### Abstract

The purpose of the study was to study the Effect of Physical Activity Programme on Health related physical fitness components of age group 11 and 12 school going boys. With the help of purposive sampling technique researcher was select 20 boys from Bhausaheb Gunjal Patil High school, Sangamner, District Ahmednagar. Each group consisted of 10 students. For the collection of data, Physical fitness was measured by standard physical fitness test 9 min . Run/Walk, Push- ups, Bent knee sit ups, Sit and reach. To determine the effect of physical Activity programme Paired Sample't' test was used. On the basis of findings of the study, there was a significant effect of physical activity program on cardiovascular endurance, Muscular strength and endurance and flexibility. Introduction: Physical fitness is one of the primary factors that are responsible for our physical as well as psychological well-being .Physical fitness is the key to happiness in life. Early in the $20^{\text {th }}$ century, people developed a consciousness of the need for fitness through physical education, games, sports and Youth Development programmers. The World Health Organization (WHO) has set a target that every person in the world should become health conscious by 2000 AD and it is a right step in the attainment of health for all. Regular physical activity is an essential adjunct to normal growth and development. Through physical activity children become fitter and healthier. The programmer of physical education is intended not only to achieve physical fitness but also optimum organic health, emotional stability, social adaptability to take proper decisions and develop skills that will enable a child to participate in various activities.

Physical activity is generally defined as bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure. Therefore, physical activity is an all encompassing term that includes exercise, sports, and dance and leisure activity. According to WHO (World Health Organization) Physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure. This study aims to study the effect of Physical Activity Programme on Health related physical fitness components of school going boys. Methodology : The objective of this study was to study the effect of exercise module on Health Related Physical Fitness components of age group between 11 and 12 years school going boys. For this purpose Experimental method was employed. For experiment, researcher was use the Single group, pretestposttest design. The investigation was carried out the Bhausaheb Gunjal Patil High school, Sangamner, District Ahmednagar, state Maharashtra for the $5^{\text {th }}$ and


$6^{\text {th }}$ standard high school boys ( $\mathrm{n}=20$ ) who were randomly divided into two equal groups, viz. age group11 and 12. Each group consisted of 10 students. For the selection of sample simple random sampling Technique was used.
The experimental has been planned in three phases

- Phase I: Pretest.
- Phase II: Treatment ( Physical activity program)
- Phase III: Post test.

This design provides some improvement over the first, for the effects of the treatment are judged by the difference between the pre test and the post test scores. The test items were conducted as the standard physical battery and the procedures described in the AAHPERED health related physical fitness test. The following tests 9 minutes run-walk test, Push-ups, Sit ups and Sit and reach test were administered to assess Physical Fitness.
Statistical Analysis: Mean, standard deviation and Paired sample't' test were adopted for statistical analysis of data. Statistical Package for social Sciences (SPSS) MS windows Release 11.5 was used for statistical analysis.
Results and Discussion: The descriptive measures in terms of means and standard deviation of the variables are shown in Table-1 and Table-2
TABLE NO. 1 Descriptive Analysis of Experimental Group (11 Year) ( $\mathrm{N}=10$ )

|  | Pre Test |  | Post test |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Variables | Mean | S. D. | S. E. M. | Mean | S. D. | S. E M. |
| 9min. R\&W | 1210 | 389.17 | 123.06 | 1568.7 | 309.18 | 97.77 |
| Push-Ups | 11.2 | 4.36 | 1.38 | 17.8 | 4.04 | 1.28 |
| Sit-Ups | 10.8 | 2.65 | 0.84 | 17.7 | 3.4 | 1.07 |
| S \& R | 2.15 | 1.73 | 0.54 | 3.6 | 1.86 | 0.59 |

TABLE NO. 2 Descriptive Analysis of Experimental Group (12 Year) (N=10)

|  | Pre Test |  | Post test |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Variables | Mean | S. D. | S. E. M. | Mean | S. D. | S. E. M. |
| 9min. R\&W | 1265.6 | 214.46 | 67.82 | 1704.4 | 169.45 | 53.58 |
| Push-Ups | 8.7 | 2.75 | 0.86 | 16.4 | 2.91 | 0.92 |
| Sit-Ups | 8.7 | 3.83 | 1.21 | 14.6 | 4.27 | 1.35 |
| S \& R | 2.05 | 1.84 | 0.58 | 3.85 | 2.23 | 0.707 |

S.E.M. - Std. Error of Mean S. D. - Std. Deviation

S \& R - Sit \& Reach
9min. R \& W- 9 minute Run and Walk
TABLE NO. 3 Difference between Pre and Post Test of the Experimental Group (Age Group 11 Year)

Paired Differences
Sig. (2-tailed)

| Variables | M. D. | S. D. | S. E. M | DF |  | t |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 9min. R\&W | 358.7 | 161.33 | 51.01 | 9 | 0.001 | 7.03 |
| Push-Ups | 6.6 | 2.988 | 0.94 | 9 | 0.001 | 6.98 |
| sit-ups | 6.9 | 3.665 | 1.15 | 9 | 0.001 | 5.95 |
|  |  |  | ISSN 0975-5020 |  |  |  |


| S \& R | 1.45 | 0.831 | 0.26 | 9 | 0.001 | 5.51 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

TABLE NO. 4 Difference between Pre and Post Test of the Experimental Group (Age Group 12year)

|  | Paired <br> Differences |  |  |  | Sig. <br> (2-tailed) |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Variables | M. D. | S. D. | S. E. M | DF |  | t |  |
| 9min. R\&W | 438.8 | 180.49 | 57.07 | 9 | 0.001 | 7.68 |  |
| Push-Ups | 7.7 | 3.4 | 1.07 | 9 | 0.001 | 7.16 |  |
| sit-ups | 5.9 | 1.852 | 0.58 | 9 | 0.001 | 10.06 |  |
| S \& R | 1.8 | 1.549 | 0.48 | 9 | 0.001 | 3.67 |  |
| M.D.-Mean Difference |  |  | S. D.- Std. Deviation |  |  |  |  |
| S.E.M. - Std. Error of Mean |  |  | DF -Degree of freedom |  |  |  |  |

Table 2 and Table 3 shows the findings of Experiment are as follow:

- There is statistically significant effect of Physical activity exercise programme on components of Cardiovascular Endurance, Muscular strength and Endurance, Muscular Endurance and Flexibility. Thus, it is interpreted that effect of physical activity programme improve in Cardiovascular Endurance (9min. R/W), muscular strength and Endurance (Push-ups and Sit ups) and Flexibility (Sit \& reach) of 11 and 12 years school boys.
The results showed that due to physical activity program performance was increases in the component of Health Related physical fitness significantly. This study has a special significance from the research point of view in a sense that more than a required amount or vice versa of anything will not yield the desired results. The researcher do feel that the study in this direction i.e. to find out the exact amount of physical activity which is beneficial to the student considering all the other related factors to the human performance is a challenge which the researchers should accept.


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## Love Strains In Donne's Poetry

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#### Abstract

Donne's love poetry is record of moods, of the conflict between emotion and intellect, of the war between sense and spirit, body and soul. But when Donne had married Anne Moore, love becomes to him a holy passion. They feel that they have become pure spirits. Soon the two spirits talk to each other, and they see that love is "not sex". Then the two souls get united and become one.

John Donne (1572-1631) has a reputation as a poet of love rests upon his fifty-five love lyrics. They appeared in "Songs and Sonnets" in 1633. Donne's conception of love is more akin to the middle ages than to the Renaissance. In fact, among all the English love poets, he is the only complete amorist. The poetry of lust has never been written with more minute truth, but then neither has the poetry of love transcending sex. His love poetry is very complex. His love appears in them in different forms. In some, it appears as extreme physical passion. In others, it appears as something cynical, tinged with contempt for woman's unfaithfulness.

John Bonnet says, "Donne's love poetry in not about the difference between marriage and adultery but about the difference between lust and love."

Donne had love affairs and illicit relations with many women. They were the source of inspiration of his love poems. Some of these ladies are ; 1-Anne More, 2- Lucy Bedford, 3- Magdalene Herbert, 4- Elizabeth Huntington. In 'The Blossom' he starts with the belief that love is a physical passion. There is an imaginary debate between the poet and his heart and the love situation is dramatically presented. He expresses his view that without physical reactions, such as kissing and embracing, there can be no love. He writes - "A naked thinking heart, that makes no show, Is to a woman, but a kind of ghost, How shall she know my heart; or having none? Know thee for one? Practice may make her know some other part, But take my word; she doth not know a heart." (The Blossom)


Donne believes in physical relationship between the lovers. Sex is above fear or shame. The world of the lovers is different from the ordinary world. Donne explains the complete nature of love. Initially, love has an element of fun and sex. It is like the dark night - an experience which is not quite clear. But with the dawn, the true nature of things is revealed. His love moods are expressive of his attitude to love, women, and beauty. It we piece them systematically together, we can get at his philosophy of love and women. He begins with the conviction that love can lead only to a sexual pleasure which is short lived.
"So lovers dream a rich and long delight,

But get a winter-seeming summer's night." (Love's Alchemy)
Donne's love poetry is record of moods, of the conflict between emotion and intellect, of the war between sense and spirit, body and soul. But when Donne had married Anne Moore, love becomes to him a holy passion. They feel that they have become pure spirits. Soon the two spirits talk to each other, and they see that love is "not sex". Then the two souls get united and become one. He begins to love her as a spiritual lover, being enamored of her spiritual beauty.
"If as I have, you also do.
Virtue attired in woman sees,
And dare love that, and say so too,
And forget that he and she."
(The Undertaking)
Due to identical changes in his life his concept of love was changed from sensual to spiritual. It is startlingly unconventional. The lust of the fresh in his youth becomes the lust of the spirit and he aspired for the union with God in the late years. Some critics believes that his love poetry is and outburst of his poetic genius unconnected with the vicissitudes of his life.

According to Grierson, his love-poetry reflects three strains - the strain of contempt and rejection (Cynical), the strain of conjugal love, and that of Platonic love. The cynical strain is seen in the poems which are addressed to his beloved women. The conjugal strain is lust (sensual love). It visible in poems like "A Valediction: Forbidding Mourning". The platonic strain is found in poems like "The Canonization". To him, love for sensual pleasure is lust. But the same love becomes a holy passion when the souls of a husband and his wife love each other. In the Holy Sonnet entitled "Since She Whom? I loved", he simply says that his love for his wife let him direct to the love of God. Donne described love as infinite and eternal in "The Anniversary":
"Only our love hath no decay,
Running it never runs from us away,
But truly keeps his first, last, everlasting decay."
Donne's love poems express different moods of the poet ranging from passionate love to spiritual, and expressing some affection as well as cynicism. He has expressed all phases of love; Platonic or sensuous serene or cynical, conjugal or illicit, lusty or sensual. In the later poems, Donne achieves the peace that passes understanding through divine love. From physical love to spiritual love - this is the way of the mystics. So real and passionate love is the path of a self discovery, the finding of the Universal soul:
"Where no one but thee, th' Eternal root, Of true love I may know."

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# A Comparative Study of Development of Strength Abilities in Normal and In Deaf and Dumb Boys between 8 Years to 14 Year 

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#### Abstract

A comparative study of development of strength abilities in normal and deaf and dumb boys between 8 to 14 years is administered on around 350 students of different schools who were taking formal education. Out of 350 students 175 were selected from normal category and 175 from physically challenged i.e., deaf and dumb category. In each group 25 boys were selected ( 25 subjects in normal boys and in each age group i.e., $8,9,10,11,12,13, \& 14$ years totaling to $175 ; 25$ subjects in deaf and dumb in each age group i.e., $8,9,10,11,12,13$, \& 14 years totaling to 175). These subjects were tested initially in Upper extremity explosive strength, Abdomen explosive strength, Lower extremity explosive strength and the same subjects were exposed to the same tests after exactly one year without any formal sports training and the development in their strength abilities were noted. After the statistical treatment of data by utilizing "t" test the following findings were noted: In case of normal boys the development of strength in upper extremity is observed highest at the age of 14 whereas the abdominal strength at the age of $11^{\text {th }}$ years and $12^{\text {th }}$ years in lower extremity at $12^{\text {th }}$ year. The development of hands, abdomen and leg strength is found at $14^{\text {th }}$ year of age of deaf dumb boys.


## Introduction:

Motor development objectives are concerned with making physical movements, useful with as little expenditure of energy as possible. The term motor is derived from the relationship of a nerve or nerve fiber to the one that connects the Central Nervous System with muscles through their convections the movements' results. Effective motor movement can only results if there is harmonious working of the muscular and the nervous system. It helps in keeping a greater distance between fatigue and peak performance. The activities that involve hanging, jumping, dodging, leaping, kicking, bending, throwing will enable a person to perform his daily work much effectively without reaching a point of wearing out, so quickly.

A comprehensive list of components of motor ability for performance of various physical activities (including sports) include muscular strength, muscular endurance, muscular power, cardiovascular endurance (alternatively also known as cardiopulmonary endurance), agility, speed, balance, flexibility, reaction time, coordination (eye-foot coordination, eye-hand coordination, whole-body coordination). In addition, traits like simple motor response, reflexes, sensory input and awareness of space and tempo (characteristic speed and rhythm of
movement) are also considered important in motor performance- ability especially during the early years of body development.

Strength is a conditional ability i.e., it depends largely on the energy liberation process in the muscles. Strength is also perhaps the most important motor ability in sports as it is a direct product of muscle contractions. All movements in sports are caused by muscle contractions and therefore, strength is apart and parcel of all motor abilities, technical skills and tactical actions. Strength should not be considered a product of only muscular contractions. It is, infact, a product of voluntary muscle contractions caused by the neuromuscular system. In sports movements, strength always appears in some combination with the duration and speed of movement i.e., in combination with endurance and speed abilities, on this basis strength ability can be divided into three types viz. maximum strength, explosive strength, strength endurance.

The need today is to search some extraordinary talent in an individual for the laurels in international sports arena. In this case it becomes obvious that the search should not limit only with the normal. The qualities that an individual possess should be innate and may be nurtured with good scientific platform, deaf dumb being no exception to it. Hence the search to prove the innate qualities of the deaf dumb and bring them to equal stature with normal.

## Need of the Study:

The population of the normal mass is comparatively more to the deaf dumb resulting the opportunities designed are more for normal mass. But at the same time their is a society always struggling to uplift the physically handicapped and trying to give them the best and equal opportunities so that the handicapped ability should not be the hurdle in normal and natural unfolding of an individual.

Considering the inability, which has the opportunity to be converted into compensatory ability for excelling in the sports arena the researcher, felt high need to evaluate the development of strength ability among deaf dumb and compare with the normal, which is a performance prerequisite.

## Objectives of the Study:

1. To find out, assess and analyze the developments taking in strength abilities among normal boys and that of deaf dumb at particular age group.
2. To understand if any higher or compensatory ability among deaf dumb children is noticed when compared to the normal children.
3. To understand various parameters of strength ability in certain age group of certain physical abnormality.
4. To understand scientific base for methods of training physically challenged children.
5. To understand how the society would help its weak counterpart.

## Significance of the Research:

1. The study may reveal the physical and mental problems of deaf dumb children.
2. The study may also profound a training methodology and loading procedure in strength training for physically challenged children in specific age group.
3. Results may also be helpful to enhance sports terminology communication skills with physically handicapped children.
4. Evaluation of development of strength abilities may fetch platform for establishing training methodology for enhancing performance in specific sports.
5. The comparison of development of strength abilities will give clear picture of the positive and negative aspects of the strength abilities, which in turn ensure the proper training.

## Methodology

## Sample:

The samples of this study is randomly selected form different schools with their date of birth lying between 1999 to 1993 in normal subjects (boys) and deaf dumb subjects (boys). The selected age groups of the subjects were from 8 to 14 years. In each group 30 subjects were selected initially with a margin of $\pm 5$. All the selected subjects were non-sportsman staying either in school hostels or at their residence to ensure the untrained development in motor abilities. In all 350 subjects were tested initially and the same 350 subjects were tested finally after one academic year ( 12 months). The tests were conducted for two days for four hours on each group of 25 subjects approximately. In all 350 subjects were considered for obtaining the difference between development is evaluated by subtracting the initial test score from the final test score. Every subject was allotted with a code and a separate self contained form for test results. The tests were selected in the aspects of growth and development. In growth, height and weight is evaluated and in development of motor abilities the researcher has selected the standard tests in speed, strength, endurance, flexibility, coordinative abilities and their complex forms for evaluation. The tests are administered individually under standard conditions applicable for specific tests and the time period required between two tests is amply considered.

## Variables:

(1) Normal boys. (2) Deaf dumb boys.

DEVELOPMENT OF SPEED ABILITIES: (1) Upper extremity explosive strength.
(2) Abdomen explosive strength. (3) Lower extremity explosive strength.

## Tools and Means:

The research scholar has used some of the selected strength ability tests which are applicable to the selected age group and samples and are universally accepted and established standard tests for assessing development of motor abilities.

Strength ability tests: (1) Medicine ball put for Upper extremity explosive strength. (2) Sit-ups for Abdomen explosive strength. (3) Standing vertical jump for Lower extremity explosive strength.

## Procedure:

The subjects were selected from different schools in normal category (boys) and deaf dumb schools (boys). In all 03 testes were selected for evaluating the development of strength abilities of the subjects between 8 to 14 years. The tests were administered with all specified and standard conditions starting with warming up exercises, optimum active rest periods in between and cooling down at the end. The condition of the subjects was observed normal and motivated to take part in the tests. An introductory talk regarding the initial day's workout is assessed for confirmation of tirelessness and recovered state.

## Statistical Methods:

To analyze the collected data the scores are arranged according to the comparison and in sequential order so as to find out the statistical values. The following statistical variables are selected for comparing, analyzing and interpretation of numerical values and basing on which the findings are discussed.
(1) Mean is computed by adding all the scores and then dividing by the number of scores involved. The mean is used in the study to measure the average development.
(2) For testing the null hypothesis for the difference between various sample means the t -Test is used at significance of .05 levels.

## Results and Discussions:

In case of normal boys the development of strength in upper extremity is observed highest at the age of 14 whereas the abdominal strength at the age of $11^{\text {th }}$ years and $12^{\text {th }}$ years in lower extremity at $12^{\text {th }}$ year. The development of hands, abdomen and leg strength is found at $14^{\text {th }}$ year of age of deaf dumb boys.

## Results of the Comparison of the Development of Upper Extremities Explosive Strength of Boys (Normal and Deaf-Dumb) <br> Between 8 Years to 14 Years (Medicine Ball Throw) <br> Normal boys:

1. The maximum mean of development of upper extremity explosive strength in normal boys was found at the age of 14th year, which is 0.22 mts and the minimum at 11 th year, which is 0.07 mts . The average mean of development of upper extremity explosive strength in normal boys between 8 to 14 years is found to be 0.13 mts .
2. The standard deviation of development of upper extremity explosive strength in normal boys is found maximum at the age of 14th year, which is 0.16 and minimum at the age of 12th year, which is 0.042 . The average standard deviation of development of upper extremity explosive strength in normal boys between 8 to 14 years is found to be 0.08 .
3. The correlation of development of upper extremity explosive strength in normal boys between 8 years to 14 years of age groups is found as high as 0.98 .

## Deaf-dumb boys:

1. The maximum mean of development of upper extremity explosive strength in deaf-dumb boys was found at the age of 14th year, which is 0.24 mts and the minimum at 8 th year, which is 0.08 mts . The average mean of development of upper extremity explosive strength in deaf-dumb boys between 8 to 14 years is found to be 0.13 mts .
2. The standard deviation of development of upper extremity explosive strength in deaf-dumb boys is found maximum at the age of 8th year, which is 0.14 and minimum at the age of 11 th year, which is 0.055 . The average standard deviation of development of upper extremity explosive strength in deaf-dumb boys between 8 to 14 years is found to be 0.07 .
3. The correlation of development of upper extremity explosive strength in deafdumb boys between 8 to 14 years of age groups is found as high as 0.97 .
Comparison of Boys (Normal and deaf-dumb):
The average mean of development of upper extremity explosive strength of normal boys between 8 to 14 years is 0.13 mts , which is equal to 0.13 mts of the deaf-dumb boys between 8 to 14 years. The difference of mean of development of upper extremity explosive strength between normal boys and that in the deafdumb boys is 0.00 mts , which is insignificant. The maximum mean of development of upper extremity explosive strength in normal boys is found at the age of 14th year, which is 0.22 mts and that in the deaf-dumb boys it is at the age of 14th year, which is 0.24 mts .
Table: evaluation of significance of development in upper extremity explosive strength in normal and deaf-dumb (boys) by using t -test.

| BOYS (NORMAL \& DEAF- <br> DUMB) | t-Test Results | COMMENTS |
| :--- | :--- | :--- |
| 08 NB \& DDB | 0.061 | Insignificant |
| 09 NB \& DDB | 0.299 | Insignificant |
| 10 NB \& DDB | 0.126 | Insignificant |
| 11 NB \& DDB | 0.009 | insignificant |
| 12 NB \& DDB | 0.414 | Insignificant |
| 13 NB \& DDB | 0.9 | Insignificant |
| 14 NB \& DDB | 0.326 | insignificant |

*Significant at 0.05 level.
Table: Mean values and comparison of the category of subjects Boys (Normal and Deaf and Dumb) in Medicine ball put (Explosive arm strength)

| MEAN VALUES AND |  |  |  |
| :--- | :--- | :--- | :--- |
| COMPARISON OF THE | MEDICINE PUT | MEDICINE |  |
| CATEGORY OF SUBJECTS: | BALL PALL PUT | MEDICINE BALL PUT |  |
| BOYS (N \& DD) | INITIAL | FINAL | DEVELOPMENT |
| NORMAL BOYS 08 YEARS | 2.58 | 2.712 | 0.132 |
| DEAF \& DUMB BOYS 08 YEARS | 2.188 | 2.272 | 0.084 |
|  |  |  |  |
| NORMAL BOYS 09 YEARS | 2.488 | 2.6256 | 0.1376 |


| DEAF \& DUMB BOYS 09 YEARS | 2.174 | 2.3 | 0.126 |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| NORMAL BOYS 10 YEARS | 3.024 | 3.132 | 0.108 |
| DEAF \& DUMB BOYS 10 YEARS | 2.608 | 2.74 | 0.132 |
|  |  |  |  |
| NORMAL BOYS 11 YEARS | 1.752 | 1.824 | 0.072 |
| DEAF \& DUMB BOYS 11 YEARS | 2.76 | 2.876 | 0.116 |
|  |  |  |  |
| NORMAL BOYS 12 YEARS | 1.956 | 2.048 | 0.092 |
| DEAF \& DUMB BOYS 12 YEARS | 2.418 | 2.506 | 0.088 |
|  |  |  |  |
| NORMAL BOYS 13 YEARS | 3.134 | 3.35 | 0.216 |
| DEAF \& DUMB BOYS 13 YEARS | 2.666 | 2.796 | 0.13 |
|  |  |  |  |
| NORMAL BOYS 14 YEARS | 3.992 | 4.214 | 0.222 |
| DEAF \& DUMB BOYS 14 YEARS | 3.506 | 3.746 | 0.24 |



Results of the Comparison of the Development of Abdomen Strength of Boys (Normal and Deaf-Dumb) Between 8 Years to 14 Years (Sit-Ups)

## Normal boys:

1. The maximum mean of development of abdomen explosive strength in normal boys was found at the age of 11th year, which is 7.6 and the minimum at 14th year, which is 3.28 . The average mean of development of abdomen explosive strength in normal boys between 8 to 14 years is found to be 4.53 .
2. The standard deviation of development of abdomen explosive strength in normal boys is found maximum at the age of 11th year, which is 3.34 and minimum at the age of 13th year, which is 1.32 . The average standard deviation of development of abdomen explosive strength in normal boys between 8 to 14 years is found to be 2.20.
3. The correlation of development of abdomen explosive strength in normal boys between 8 years to 14 years of age groups is found as high as 0.90 .

## Deaf-dumb boys:

1. The maximum mean of development of abdomen explosive strength in deafdumb boys was found at the age of 14th year, which is 5.12 and the minimum at 9 th year, which is 1.88 . The average mean of development of abdomen explosive strength in deaf-dumb boys between 8 to 14 years is found to be 3.22.
2. The standard deviation of development of abdomen explosive strength in deafdumb boys is found maximum at the age of 14th year, which is 2.14 and minimum at the age of 10th year, which is 1.15 . The average standard deviation of development of abdomen explosive strength in deaf-dumb boys between 8 to 14 years is found to be 1.57.
3. The correlation of development of abdomen explosive strength in deaf-dumb boys between 8 to 14 years of age groups is found as high as 0.94 .
Comparison of Boys (Normal and deaf-dumb):
The average mean of development of abdomen explosive strength of normal boys between 8 to 14 years is 4.53 , which is more to 3.22 that of the deaf-dumb boys between 8 to 14 years. The difference of mean of development of abdomen explosive strength between normal boys and that in the deaf-dumb boys is 1.31, which is insignificant. The maximum mean of development of abdomen explosive strength in normal boys is found at the age of 11th year, which is 7.60 and that in the deaf-dumb boys it is at the age of 14th year, which is 5.12 .
Table: evaluation of significance of development in abdomen strength in normal and deaf-dumb (boys) by using t-test.

| BOYS (NORMAL \& DEAF- <br> DUMB) | t-Test Results | COMMENTS |
| :--- | :--- | :--- |
| 08 NB \& DDB | 0.018 | Insignificant |
| 09 NB \& DDB | 0.0003 | Insignificant |
| 10 NB \& DDB | 0.050 | Insignificant |
| 11 NB \& DDB | 1.3 | insignificant |
| 12 NB \& DDB | 1.2 | Insignificant |
| 13 NB \& DDB | 0.354 | Insignificant |
| 14 NB \& DDB | 0.002 | insignificant |

* Significant at 0.05 level

Table: Mean values and comparison of the category of subjects Boys (Normal and Deaf and Dumb) in Sit -ups (Abdominal strength)

| MEAN VALUES AND |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| COMPARISON OF THE |  |  |  |
| CATEGORY OF SUBJECTS: |  |  |  |
| BOYS (N \& DD) | SIT-UPS <br> INITIAL | SIT-UPS <br> FINAL | SIT-UPS |
| DORMAL BOYS 08 YEARS | 25.36 | 28.68 | 3.32 |
| DEAF \& DUMB BOYS 08 YEARS | 26.92 | 29.16 | 2.24 |

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| NORMAL BOYS 09 YEARS | 31.24 | 35.16 | 3.92 |
| :--- | :--- | :--- | :--- |
| DEAF \& DUMB BOYS 09 YEARS | 23.04 | 24.92 | 1.88 |
|  |  |  |  |
| NORMAL BOYS 10 YEARS | 27.92 | 31.72 | 3.8 |
| DEAF \& DUMB BOYS 10 YEARS | 27.52 | 30.44 | 2.92 |
|  |  |  |  |
| NORMAL BOYS 11 YEARS | 32.84 | 40.44 | 7.6 |
| DEAF \& DUMB BOYS 11 YEARS | 27.52 | 30.8 | 3.28 |
|  |  |  |  |
| NORMAL BOYS 12 YEARS | 33.16 | 38.88 | 5.72 |
| DEAF \& DUMB BOYS 12 YEARS | 29.56 | 32.48 | 2.92 |
|  |  |  |  |
| NORMAL BOYS 13 YEARS | 31.96 | 36.04 | 4.08 |
| DEAF \& DUMB BOYS 13 YEARS | 31.96 | 36.2 | 4.24 |
|  |  |  |  |
| NORMAL BOYS 14 YEARS | 35.4 | 38.68 | 3.28 |
| DEAF \& DUMB BOYS 14 YEARS | 31.84 | 36.96 | 5.12 |



Results of the Comparison of the Development of Lower Extremities Explosive Strength of Boys (Normal and Deaf-Dumb) 8 Years to 14 Years (Standing Vertical Jump)

## Normal boys:

1. The maximum mean of development of lower extremities explosive strength in normal boys was found at the age of 12th year, which is 4.12 cms and the minimum at 14th year, which is 3.24 cms . The average mean of development of lower extremities explosive strength in normal boys between 8 to 14 years is found to be 3.17 cms .
2. The standard deviation of development of lower extremities explosive strength in normal boys is found maximum at the age of 14th year, which is 2.17 and
minimum at the age of 8th year, which is 0.91 . The average standard deviation of development of lower extremities explosive strength in normal boys between 8 to 14 years is found to be 1.44.
3. The correlation of development of lower extremities explosive strength in normal boys between 8 years to 14 years of age groups is found as high as 0.94 .

## Deaf-dumb boys:

1. The maximum mean of development of lower extremities explosive strength in deaf-dumb boys was found at the age of 14th year, which is 4.28 cms and the minimum at 8 th year, which is 1.48 cms . The average mean of development of lower extremities explosive strength in deaf-dumb boys between 8 to 14 years is found to be 2.36 cms .
2. The standard deviation of development of lower extremities explosive strength in deaf-dumb boys is found maximum at the age of 14th year, which is 1.67 and minimum at the age of 9th year, which is 0.78 . The average standard deviation of development of lower extremities explosive strength in deaf-dumb boys between 8 to 14 years is found to be 1.14.
3. The correlation of development of lower extremities explosive strength in deafdumb boys between 8 to 14 years of age groups is found as high as 0.97 .

## Comparison of Boys (Normal and deaf-dumb):

The average mean of development of lower extremities explosive strength of normal boys between 8 to 14 years is 3.17 cms , which is more to 2.36 cms that of the deaf-dumb boys between 8 to 14 years. The difference of mean of development of lower extremities explosive strength between normal boys and that in the deaf-dumb boys is 0.81 cms , which is insignificant. The maximum mean of development of lower extremities explosive strength in normal boys is found at the age of 12th year, which is 4.12 cms and that in the deaf-dumb boys it is at the age of 14th year, which is 4.28 cms .
Table: evaluation of significance of development in lower extremity explosive strength in normal and deaf-dumb (boys) by using t-test.

| BOYS (NORMAL \& DEAF- <br> DUMB) | t-Test Results | COMMENTS |
| :--- | :--- | :--- |
| 08 NB \& DDB | 0.0010 | Insignificant |
| 09 NB \& DDB | 0.001 | Insignificant |
| 10 NB \& DDB | 0.397 | Insignificant |
| 11 NB \& DDB | 1.7 | insignificant |
| 12 NB \& DDB | 1.7 | Insignificant |
| 13 NB \& DDB | 0.0001 | Insignificant |
| 14 NB \& DDB | 0.054 | insignificant |

## * Significant at 0.05 level

Table: Mean values and comparison of the category of subjects Boys (Normal and Deaf and Dumb) in standing vertical jump (Explosive leg strength)

| MEAN VALUES AND COMPARISON OF THE CATEGORY OF SUBJECTS: BOYS (N \& DD) | S.V.J. INITIAL | S.V.J. FINAL | S. V. JUMP DEVELOPMENT |
| :---: | :---: | :---: | :---: |
| NORMAL BOYS 08 YEARS | 19.84 | 22.32 | 2.48 |
| DEAF \& DUMB BOYS 08 YEARS | 18.84 | 20.32 | 1.48 |
| NORMAL BOYS 09 YEARS | 20.52 | 23.4 | 2.88 |
| DEAF \& DUMB BOYS 09 YEARS | 20.88 | 22.76 | 1.88 |
| NORMAL BOYS 10 YEARS | 24.4 | 26.84 | 2.44 |
| DEAF \& DUMB BOYS 10 YEARS | 21.4 | 23.76 | 2.36 |
| NORMAL BOYS 11 YEARS | 24.44 | 28.24 | 3.8 |
| DEAF \& DUMB BOYS 11 YEARS | 22.04 | 24.2 | 2.16 |
| NORMAL BOYS 12 YEARS | 24.64 | 28.76 | 4.12 |
| DEAF \& DUMB BOYS 12 YEARS | 21.32 | 23.6 | 2.28 |
| NORMAL BOYS 13 YEARS | 24.84 | 28.12 | 3.28 |
| DEAF \& DUMB BOYS 13 YEARS | 24.12 | 26.24 | 2.12 |
| NORMAL BOYS 14 YEARS | 29.52 | 32.76 | 3.24 |
| DEAF \& DUMB BOYS 14 YEARS | 29.28 | 33.56 | 4.28 |



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# Hierarchy of the Holy Places in Maharashtra 

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#### Abstract

India has rich tradition of sacred places. These places are supposed to have unique earth wisdom called 'Spirit of place'. A place of worship became sacred and suitable by virtue of appearance holiness of that place. Holy place of each level have their corresponding pilgrim field. The ranks or level of holy places have evolved for over three millennia as a result of absorption of many local cults and reconciliation of numerous traditions. Thus Hindu holy places are not to be conceived as a hierarchy of the 'Pecking Order' (Bhardwaj, 1973). There are so many holy sacred places located in Maharashtra but some of them have a wide regional and national hinterland; e.g. Pandharpur, Shrdi, Nashik, Trimbakeshwar, Tuljapur, Kolhapur etc. The present study tries to find out the hierarchy of holy places in Maharashtra.


Key Word: Hierarchy, Sacred places, devotees, sanctity

## Introduction:

India has a rich tradition of sacred places distributed all over India. Some places are more sacred than other, but no any system defines which particular place is the most sacred. In traditional Hinduism tirthas (holy places) are classified according to their importance. 1) the Daiva tirthas 2) the Asura tirthas 3) the Arsa tirthas 4) the Manusha tirthas. This classification seems to have a hierarchical basis (Brahmapurana; Chapter XX, Verse $16^{\text {th }}$ as quoted in Aiyangar. Ed Krtyakalpataru).

In Daiva tirthas includes the sacred places related to three major deities of Hinduism namely Brahma, Vishnu and Mahesha (Shiva) all are male deities. As Aiyangar (1942) states: "If the three gods have sanctified tirthas it is of at most sanctity". The Asura tirthas are associated with demons or Asura. They are second order places. Their sanctity derives from acts of the three major gods, who destroyed the demons thus restoring moral order. The destructive acts of gods that result in the Asura tirthas, they are clearly of lower order than the acts of Daiva tirthas. The third type of tirthas has been consecrated by the human action of saints and sages through their austerities, penances and sacrifices.

The fourth types of sacred places are those have been sanctified theor etically by the rulers of solar and lunar dynasties (Aiyangar, 1942). These are the tirthas where the rulers established a temple and duly consecrated it. Etymologically, the expression 'Manusa Tirtha' should mean the "human sacred place". These acts are of lower order than the acts of the holy men; in turn the acts of holy men are of lower order than of the gods. Further godly acts of creation are of a higher order
According to puranic literature the centres of mother goddess also classified into four major and forty-six minor sacred places. (Sircar 1948) thus the fourfold classification in fact attempts to rank the orders of sacred places. Bhardwaj (1973)
has classified Hindu holy places in India according to their relative importance. His classification is based on a consensus of seven different sources. There are so many holy places in Maharashtra but some of them have a wide regional and national hinterland; e.g. Pandharpur, Shirdi, Nasik, Kolhapur etc.
The present study tries to find out hierarchy of holy places in Maharashtra and also analyze the hierarchical pattern in Maharastra.

## Objectives of the Study:

1) To find out the hierarchy of holy places in Maharashtra.
2) To analyze the hierarchy of holy places

## Methodology:

To obtain the objectives of the study used the primary data. To find out the hierarchy of holy places in Maharashtra the opinion of devotees is considered. Interviews of devotees have been taken at different places in Maharashtra using questionnaire. Questions asked to devotee: As per your opinion, which are the five most 'Sacred Tirthas' in Maharashtra. The answer to this question naturally depends upon many factors e.g. district place of devotees, the opportunity of visiting them; the Tirtha which he knows, the devotees view of sanctity and education and cast of devotee. To find out ranking of holy places considered the education of devotees.

## Ranking of Holy Places in Maharashtra:

Table 1.1 shows the opinion of devotees regarding the five most sacred places in Maharashtra. The ranking order is given on the basis of how many percent of devotees mention the name of the particular center. According to this the select first five centers at each place of interview are given in table 1.1

## Table 1.1

Opinion of Devotees Regarding Ranking of Holy Places In Maharashtra

| $\begin{aligned} & \mathrm{Sr} . \\ & \mathrm{no} \end{aligned}$ | Place of Interview and number of respondings. | Most frequent choice and percentage of devotee | Second Most and percentage devotee | $\left.$Third $\quad$ Most <br> and <br> percentage of <br> devotee$\quad \right\rvert\,$ | Fourth Most and percentage of devotee | Fifth Most and percentage of devotee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Pandharpur, (200) | Pandharpur 95 | Alandi 60.6 | $\begin{aligned} & \text { Dehu } \\ & 40 \end{aligned}$ | $\begin{aligned} & \text { Tuljapur } \\ & 35.6 \end{aligned}$ | $\begin{aligned} & \text { Paithan } \\ & 25.6 \end{aligned}$ |
| 2. | Sikhar Singnapur (70) | Pandharpur 92.8 | Sikar Singnapur <br> 81.4  | Jejuri 50 | Gondawale $47$ | Alandi $44.3$ |
| 3 | $\begin{aligned} & \text { Jotiba } \\ & (150) \end{aligned}$ | Pandharpur 71.3 | Jotiba 66.6 | Kolhapur 54.6 | $\begin{array}{\|l\|l\|} \hline \text { Shirdi } \\ 37.3 \end{array}$ | $\begin{aligned} & \text { Tuljapur } \\ & 36 \end{aligned}$ |
| 4 | Ganpatipule (75) | Pandharpur 60 | Jotiba $44$ | Kolhapur 36 | $\begin{aligned} & \text { Tuljapur } \\ & 33.5 \end{aligned}$ | $\begin{array}{\|l} \hline \begin{array}{l} \text { Shirdi } \\ 32 \end{array} \\ \hline \end{array}$ |
| 5. | $\begin{array}{\|l} \hline \text { Nagpur } \\ (101) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline \text { Shegaon } \\ 92 \\ \hline \end{array}$ | Shirdi $84$ | Pandharpur 62.4 | Ramtake 49.5 | Mahur 44.55 |
| 6. | Trimbakeshwar (105) | $\begin{aligned} & \text { Trimbak } \\ & 80.9 \end{aligned}$ | $\begin{aligned} & \text { Shirdi } \\ & 68.5 \end{aligned}$ | $\begin{aligned} & \text { Pandharpur } \\ & 65 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Nashik } \\ & 58 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Alandi } \\ & 42 \\ & \hline \end{aligned}$ |

Source: Compiled by Author.
Analysing the table 1.1 several conclusions can be made -

1. As per place of interview the ranking of holy place changes.
2. Pandharpur is only place, which gets the first rank at four places of interview and third rank at two places.
3. General tendency of the devotees is to tell the one or two places, which are well known all over Maharashtra and other two or three centers are local, which are nearer to them.
4. At Nagpur $92 \%$ devotees mention the Shegaon in their answer. As per their opinion this centre is most sacred place in Maharashtra, similarly Shirdi is second most sacred place.
5. At micro regional level the hierarchy of holy centre changes but all over Maharashtra the high rank of Pandharpur is easily seen. Hence Pandharpur is known as a religious capital of Maharashtra.
6. Nashik is known as national shrine but the data shows that it is not most sacred place in all over Maharashtra, only in north Maharashtra it is considered as such.
7. Shirdi is a modern holy centre in Maharashtra and today thousands of devotees' visit this place daily. In the answer of devotees it reflects that it is second most sacred place in north Maharashtra and Vidarbha. Shirdi is wellknown worship centre all over Maharashtra.
8. Above all data of opinion of devotees it shows that Pandharpur, Shirdi, Alandi, Tuljapur, Kolhapur, Nashik, Trimbakeshwar, Jotiba, Jejuri, Shegaon, Dehu these places are relatively most sacred places in Maharashtra. Other places like Mahur, Shikarsingnapur, Shanisingnapur, Paithan, Ramtake Adasa, Parli and places of Ashtavinayk also important at regional level.
Considering all data of opinions of dev otees find out the first ten ranks of holy places and mentioned in table 1.2

## Table 1.2

## First Ten Rank of Holy places in Maharashtra

| Sr. No. | Name of place | Percentage of Opinion |
| :--- | :--- | :--- |
| 1. | Pandharpur | 72.50 |
| 2. | Shirdi | 32.28 |
| 3. | Tuljapur | 26.70 |
| 4. | Kolhapur | 26.00 |
| 5. | Alandi | 24.50 |
| 6. | Jotiba | 23.70 |
| 7. | Trimbakeshwar | 19.30 |
| 8. | Shegaon | 17.80 |
| 9. | Nashik | 15.80 |
| 10 | Shikar Shingnapur | 15.00 |

Source: Complied by Author
Above table reveals that according to devotees Pandharpur is most sacred place in Maharashtra. Followed that Shirdi the place of holy person Prepared as second
most sacred place. Tuljapur and Kolhapur are two important Shakti Pithas in Maharashtra. Devotees give third and fourth rank to these sacred places. Alandi is one of the well -known places related to holy person 'Dyaneshwar' and it is most sacred place according to people of Warkari Sampradaya. It takes fifth rank in all over Maharashtra. Other places like Jotiba is Kuladaivata of so many families of south Maharashtra.
Trimbakeshwar and Nashik are the traditional and national worship centres but according to opinion of Maharashtrian people these are $7^{\text {th }}$ and $9^{\text {th }}$ ranking places. Shegaon is the sacred place related to holy person Gajanan Maharaj but it is well known place in Vidarbha region. Shikar Shinganapur is also important sacred place in south Maharashtra.

## Ranking of Holy Places According to Education of Devotees:

To study the ranking of holy places in Maharashtra the education of devotees is considered. They are grouped into three -education group 1 -illiterate and up to 7 ${ }^{\text {th }}$ Std, $2-7^{\text {th }}$ to $12^{\text {th }}$ Std and graduate and postgraduate. On the basis of above groups the first five ranks of sacred places shown in Table 1.3

## Table 1.3

Ranking of Holy places according to Education Devotees

| Sr. <br> No. | Education of devotee | Most frequent <br> choice | Second most | Third most | Fourth most | Fifth most |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Illiterate and up to $7^{\text {th }}$ <br> std | Pandharpur 89.2 | Alandi <br> 45 | Tuljapur 34 | Kolhapur 28 | Shirdi <br> 26 |
| 2. | $7^{\text {th }}$ to $12^{\text {th }}$ std | Pandharpur <br> 77.3 | Shirdi <br> 40 | Jotiba <br> 35.5 | Tuljapur 31.5 | Kolhapur <br> 29.5 |
| 3. | Graduate <br> graduate | and pot | Pandharpur <br> 79 | Shirdi <br> 48 | Shegaon <br> 33 | Kolhapur <br> 29 |

Source: Complied by Author
Some comments on this table are -

1) Most of the devotees of all groups give first rank to Pandharpur but the percentage decrease, as education level is increases.
2) Illiterate and up to $7^{\text {th }}$ std people give second rank to Alandi where as other two groups give second rank to Shirdi.
3) Shegaon is third most sacred place in the opinion of highly educated people and Tuljapur, Jotiba are third most sacred places in the opinion of low educated people.
4) Kolhapur is the $4^{\text {th }}$ most sacred place according to of devotees.

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# Performance of Indian Men's Hockey Team in Olympic 

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#### Abstract

Since beginning of Hockey, Indian team has maintained its superior position. India stated with Gold in 1928 Olympic organized at Amsterdam (Holland). Since 1928 A.D. India secured Gold consistently up to A.D. 1956 Melbourne (Australia) Olympic. The team descended to silver in 1960 A.D. Roman Olympic and again restored Gold Medal in A.D. 1964 Tokyo (Japan) Olympic. In A.D. 1968 and A.D. 1972 Indian Hockey team succeeded to maintain bronze and Indian Won Gold in Hockey for the last time in A.D. 1980 Moscow Olympic.

But from A.D. 1984 the performance of India in Olympic Hockey is constantly decreasing. This Decline in Hockey Performance of India in Olympic Hockey is constantly qualifying the eligibility test. Moreover, Indian team couldn't qualify Beijing Olympic in 2008.

Hockey is National game of India. At the outset it is essential to find out the cause of declining performance of India Hockey. Unless we think seriously for the causes of this declining performance it's impossible to improve it. We are the second largest population in the world. Still it's quite difficult for us to achieve any success in international sports ever organized. For this what are the plans at personal.

If we have the will power to implement all the suggestion then in near future we would retain our supreme position in hockey again. Then we would say proudly that hockey is our National game.


## Introduction and History of Hockey

There is no community regarding the origin of hockey among the experts. According to few experts it existed in Ireland as Hurling in England and wates as Bendi and in Scotland as Shinti. The sports of Hurling had been planted in Ireland before 3000 years. In A.D. 1325 Edward III passed a resolution to punish the organizers wherever organizing Hurling with 3 years imprisonment and 20 fines by considering Hurling as mere wastage of time.

In an archeological excavation during A.D. 1922. The archeologist found the release of Aristotle's house in Athens where two players are shown playing a ball put on the ground.

In modern times hockey had been originated in England. In those times a stick of Oak tree was used to play Hockey by bending it on the steam.
In A.D. 1883 the Wimbledon club prepared the rules and regulations to play hockey further changes were incorporated in those rules in A.D. 1886. In A. D. 1895 the first international hockey match was played between Ireland and

England and in A.D. 1908 the game was included in Olympic.

## History of Indian Hockey

Though hockey is the national sports (game) of Indian, there are not any evidence to support that hockey has been originated in India. The origin of hockey in India dates back to 1885-86 with the establishment of Hockey club at Calcutta. Then Bengal Hockey Club was founded in 1908 and consequently Sindh Club, Mumbai Club, Bihar Club, Orissa Club and Delhi Hockey Organization were excepted these Hockey Clubs and organizations worked efficiently to being forward the Indian Hockey team as one of the strong team in the world. First of all the seeds of Indian Hockey were sown by British in Indian Army. Afterwards sports control council was established in Army to organize the sports activates. Indian Hockey Team ranked $\mathrm{III}^{\text {rd }}$ in the Hockey world cup organized by Army sports control Counsel. In 1973 and 1975 Indian Hockey Team proved its supreme position.

## Performance of Indian Hockey Team in Olympic

Since beginning of Hockey, Indian team has maintained its superior position. India stated with Gold in 1928 Olympic organized at Amsterdam (Holland). Since 1928 A.D. India secured Gold consistently up to A.D. 1956 Melbourne (Australia) Olympic. The team descended to silver in 1960 A.D. Roman Olympic and again restored Gold Medal in A.D. 1964 Tokyo (Japan) Olympic. In A.D. 1968 and A.D. 1972 Indian Hockey team succeeded to maintain Bronze and Indian Won Gold in Hockey for the last time in A.D. 1980 Moscow Olympic.

But from A.D. 1984 the performance of India in Olympic Hockey is constantly decreasing. This Decline in Hockey Performance of India in Olympic Hockey is constantly qualifying the eligibility test. Moreover, Indian team couldn't qualify Beijing Olympic in 2008. The statistic of Indian performance in Olympic is given in below table.

| Sr. <br> No. | Year | Place | Win <br> Match | Lose <br> Match | Equal <br> Match | Goal <br> Made by | Goal <br> made on | Ranking |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| 01 | 1928 | Amsterdam | 05 | 00 | 00 | 29 | 00 | Gold |  |  |
| 02 | 1932 | Los Angeles | 02 | 00 | 00 | 35 | 02 | Gold |  |  |
| 03 | 1936 | Berlin | 05 | 00 | 00 | 38 | 01 | Gold |  |  |
| 04 | 1948 | London | 05 | 00 | 00 | 25 | 02 | Gold |  |  |
| 05 | 1952 | Helsinki | 03 | 00 | 00 | 13 | 02 | Gold |  |  |
| 06 | 1956 | Melbourne | 05 | 00 | 00 | 38 | 00 | Gold |  |  |
| 07 | 1960 | Rome | 05 | 01 | 00 | 19 | 00 | Silver |  |  |
| 08 | 1964 | Tokyo | 07 | 00 | 02 | 2 | 05 | Gold |  |  |
| 09 | 1968 | Mexico City | 07 | 02 | 00 | 23 | 07 | Branz |  |  |
| 10 | 1972 | Munich | 06 | 01 | 00 | 27 | 12 | Branz |  |  |
| 11 | 1976 | Montreal | 04 | 03 | 00 | 16 | 11 | VII |  |  |
| 12 | 1980 | Moscow | 04 | 00 | 02 | 43 | 09 | Gold |  |  |
| 13 | 1984 | Los Angeles | 05 | 01 | 01 | 20 | 11 | V |  |  |
| 14 | 1988 | Seoul | 03 | 01 | 01 | 16 | 15 | VI |  |  |
| 15 | 1992 | Barcelona | 03 | 04 | 00 | 07 | 12 | VII |  |  |
| 16 | 1996 | Atlanta | 02 | 03 | 02 | 14 | 10 | VIII |  |  |
| 17 | 2000 | Sydney | 03 | 02 | 02 | 12 | 11 | VII |  |  |
| 18 | 2004 | Athens | 02 | 04 | 01 | 16 | 18 | VII |  |  |
| 19 | 2008 | Beijing |  |  |  |  |  |  |  |  |
| 20 | 2012 | London |  |  |  |  |  |  |  |  |

Performance of Indian Hockey team in Olympic 1928 to 2008


## Causes and few questions for degrading performance of Indian Hockey Team

Hockey is National game of India. At the outset it is essential to find out the cause of declining performance of India Hockey. Unless we think seriously for the causes of this declining performance it's impossible to improve it. We are the second largest population in the world. Still it's quite difficult for us to achieve any success in international sports ever organized. For this what are the plans at personal. Governmental and organizational level to improve the performance and development of the player? Which are the special provisions for this National game? Where the training centers are established in each region of every state? How many schools and colleges which do not participate in this game? What are the incentives at various levels to accelerate more and more youth towards this game? And whatever are the provisions whether they are implemented? These are the cardinal questions and it's high time to think over these problems seriously.
Measures and Suggestions to improve the National Performance in Hockey It is necessary to form a federation of various hockey organizations and institutions for further research n this game. Indian hockey organizations should join hands with concern institutions and organizations at state, district level as well as Army hockey institution, Railway hockey institution and various other hockey organizations. Not only this resolves differences and needed to resolve differences and political conspiracies in the field of sports.

Government should interview to close the sports politics. It is necessary to create the environment in our country to develop the status and nature of hockey which is being played in our country. It is essential to create maximum Astroturf playgrounds to bridge the gap between Indian hockey and Global level hockey.

At the global level the popularity of Indian hockey team is still surviving due to its skillfulness. But as time changes we have to change. Today mere skillfulness is not important but speed and technique also got momentum in this game. Yet our players have not incorporated theses changes in their game. For this a few suggestions enlisted below are very important.
> To create as many Astroturf playgrounds in India as possible
$>\quad$ Each ground should be used for practice at its outmost capacity
> Hockey ground for each district, scheme should be implemented
> A Hockey trainer (coach) should be appointed at district level
> The present coach should be trained
> The measures have to be implemented from school level for hockey
> The schemes should be implemented for hockey playing college youths
> Government training center for each state
> Creation of hockey team for every region of the state
> Special reservation in jobs for sports personal (hockey)
> Financial support scheme should be implemented for the players

- Elimination of taxes on the hockey equipments
> Restructuring hockey on the pattern of IPL/ICPL
Tournaments in the name of various players
. Compulsion for schools and colleges to formulate hockey teams
- Encouragements to private Itd companies to sponsor the players
> Live transmission of hockey tournaments through National T.V. channel
> Distribution of hockey tournament CDs to schools and college
> To employ a sports teachers in each school and college
> To improve social awareness about this national game
> To enhance the mental power / will power to win every time
To develop the mental fitness as well as physical fitness of players
> To make interest of Hockey in school level and college level students If we have the will power to implement all the suggestion then in near future we would retain our supreme position in hockey again. Then we would say proudly that hockey is our National game.


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# Bio-diversity \& Environmental Governance - 

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## Introduction

Canada and India have been enjoying broad based relationship since 1947. Canada is the second largest country in the world next to Russia in the terms of land size. It is one of the OECD \& G 8 countries having Human Development Index (HDI) rank of 6 (as per as HBI report 2006) coupled with rich natural resources. It is an affluent high - tech industrialized country providing Official Development Assistance (ODA) to the less development countries. With a population of 33 million one out of 33 Canadians is of Indian origin. Indians form the second largest immigrant population next to china.

India on other hand is a developing economy just one third of the physical size of Canada but struggling with a little more than 33 times its population. It is rich in natural resources and human skills but has HDI rank of 126. Agriculture is the mainstay of the majority of the population even as the services and industry sector are gaining in significance as the economic drivers of the country.
Canada is technologically advanced country and India is a natural partner for collaboration in Research \& Development which has given its highly educated human capital. It is a home to some of the most Prestigious engineering, applied sciences \& management schools in the world. India is also doubling its investment in the science \& Technology sector over the next ten years to $\$ 8.25$ billion. The interest of Canadian enterprises is increasing in Indian economy over the period of time. Therefore, it is important to study the bio diversity and environmental governance in Canada and India.

## 1. Review of Literature

The literature relating to the topic has been reviewed as under:
(i) Kalyani Venkateswaran \& Kulkarni Shubhangi, 'India Canada economic Relations Milleniunium Development Goals'. National seminar on Indo-Canada Trade \& Economic Relations S.D.N.T University March 2007 concluded that it is only by assisting India in converting her vicious circle of poverty into a virtuous circle of development that Canada will benefit not only in the short run but also in the long run.
ii) (Sundarnam SKG ...Canada and India in Global Competitiveness in New Horizons Globalization India \& Canada Deep \& Deep publications New Delhi 2007 concluded that India is still only $20^{\text {th }}$ largest exporter to Canada. India's imports are only $21 \%$ of Canada's exports. The wide gap indicates the vast potential that exists. With such as vast scope for bilateral economic cooperation no wonder that Canada has declared India as one of the priority markets among earning markets.
iii) Bickerton ,in the book Canadian politics orchid park, New York, pointed out that as Canada is a geographically vast and ethnically diverse country ,there
are cultural variations \& distinctions from province \& province \& region to region Canadian culture has also been greater influenced by more recent immigration of people from all over world.
iv) Environment sustainability Index, 2005 reported that Canada ranked $6^{\text {th }}$ out of 146 countries in environmental sustainability Index, 2005. It was also ranked as number one is country by the United Nations. Human Development Index 10 times out of 16 between 1980 and 2004.

## 2. Objectives of the Study

Following are the objectives of the study:
i) To understand the concept of Bio-diversity between Canada \& India
ii) To study the environmental governance between Canada \& India
iii) To evaluate the ecosystem of Canada and India or human Welfare
iv) To study whether Canada \& India are safeguarding ecosystem for human welfare
v) To suggest measures to improve the ecosystems of Canada \& India for human welfare.

## 4) Research Methodology

The study is descriptive and analytical. It is based on secondary data which are collected from Journals, Books, report and websites. The study is related to Canada and India. The data collected with the help of secondary sources have been tabulated \& analyzed for drawing conclusions. A few statistical methods have been used for the study. A few suggestions are also made for the promotion of human welfare in Canada and India with the help of eco systems
5) Detailed Analysis: -The details analysis is given below:

## A) Cultural and Diversity:

The Diversity and Culture of Canada \& India are as follows:-
Canada is a federal constitutional monarchy with a parliamentary democracy. It is bilingual and multicultural nation, with both English \& French as official languages at the federal level. A technologically advanced and industrialized nation. It maintains a diversified economy heavily reliable on trade. Canadians reflect a dynamic evolving cultural, ethnic and linguistic make up that is found nowhere on earth. Canada's approach to diversity is based on the understanding that respect for cultural distinctiveness is intrinsic to an individual's sense of self worth and identity and a society that accommodated everyone equally is a society that encourages achievement, participation attachment to country and a sense of belonging. The diversity of cultures in Canadian is reflected in a rich to Pastry of traditions and these are especially important to new immigrants. 57 percent first generation Canadians had a strong sense of belonging to their ethnic or cultural group and about 63 percent felt that maintaining ethnic customs and traditions was important. The effect of the cultural richness is to multiply points of view, ideas and means of expression and to nourish the modern society based on knowledge and creativity. The first ever Canadian multicultural day was celebrated on June 27, 2003. A new strategic plan on diversity and culture was released with the first objective being to ensure that the composition of the

Canadian heritage portfolio, including commissions, boards, juries and workforce is representative of the diversity of Canada.
B) India accounts for $16.7 \%$ of world population. Literacy rate has improved to $65 \%$. It has adopted mixed economy. All the major religious communities include Hindus 82.4\% Muslim 11.7\%, Christens 2.3\%, Sikhs 2\%, Buddhists $0.5 \%$, Jains $0.4 \%$ \& others $0.4 \%$ of the total population. $72 \%$ of Indians are still rural. The rest live in 5161 towns including 21 cities that have a population size in access of 1 million. Of the total urban population, $15 \%$ live in slums. There are 18 officially recognized languages. Hindi is the national language which is spoken by $40 \%$ of the people like Mumbai, Delhi.
C) Many cities in India are cosmopolitan .They have a very high concentration of young people and a large spending capacity. They spend a good deal of money on ceremonies relating to marriage \& birth. India is land of art \& architecture .It has some beautiful structure in the form of churches, Temples, Mosques and historical monuments like TaJ Mahal, Golden Temple, the Sun Temple \& khajuraho.
B) Canada and India - Economic Relation

A comparison of vital statistics is given in the following table:-
Table 1: India - Canada a companion of vital statistics

| Sr. <br> No. | Variables | India | Canada |
| :--- | :--- | :--- | :--- |
| 1. | Land Area | 2973190 sq. Km. | 9093507. Sq .Km |
| 2. | HDI Rank | 126 | 6 |
| 3. | GDP (ppp \$ US) | 4 Trillion | 1.165 billion |
| 4. | GDP percapita <br> (ppp \$ US ) | 3139 | 31,263 |
| 5. | Life expect dance at birth | 63.6 years | 80.2 years |
| 6. | HPI | 31.3 | - |
| 7. | FDI flows (\$ Us) | 5.5 bn | 34 bn |
| 8. | Exports (\$ US) | 112 bn | 405 bn |
| 9. | Imports (\$ US) | 187.9 bn | 353.2 bn |
| 10. | Economic Aid (\$ US) | 2.9 bn (Recipient) | 2.6 bn (Donor) |

source:- The World fact book Canada \& India. Report 2006
Table No. 1 reveals that there are great inequalities in the levels of development between the two countries. Canada accounts for $12 \%$ of India's exports and 0.9\% of Imports Trade \& investment relations between Two countries can take place only if both mutually benefit in the emerging globalization market forces and economic factors play a very dominate role and these forces may provide an important basis for strengthening Indo-Canadian relations with the advent of WTO \& globalization tendencies gaining moments. Liberalization has become the official policy of the government of India. The changing phases of business environment along with the vast untapped Potentiality of markets and resources has put India and the agenda of the developed countries of the world.

## C) Sustainable Development

In 1951, India was the largest recipient of aid from cannda through the Canadian International Development Agency (CIDA), In 1997 the total value of
committed CIDA assiscence reached C $\$ 75$ Million. For the last few years this assistance has been averaging between C\$ 22 and 25 million. CIDA supports India's development efforts through its Canadain Partnership and multilateral programs. The bilateral aid programme for India has been phased out effective March 2006. India is the country that received the most from the Canadian investment in Multilateral institutions and programmes. The objective of CIDA is to work with developing countries and countries in transition to develop the to eventually meet their own needs. To do this the efforts are concentrated rated on six priority areas. i.e basic human development , women development, information services, human rights, democracy and good governance and private sector, development, Through CIDA Canada contributes to poverty reduction and sustainable development and environment management. India is committed to the principles of sustainable development, Achieving this goal will require greater attention to the plight of the poor whose day to day subsistence is often directly linked to the natural resources around them and to an unprecedented level of global cooperation.
As far as environment is concerned the mandate of CIDA has been:

1. To promote sustainable development
2. To contribute to the transition to a Mature economic and political relationship between India and Canada.
3. To promote economic and social Policy reforms in India.
4. To contribute to India's capacity to promote environmentally sound development.
CIDA is currently supporting a number of post tsunami and post earthquake reconstruction projects in India.
D) Ethnicity : Ethnicity is a multidimensional expression of identify that includes race, origin, or ancestry, language and religion. Immigration blending and intermarriage that every often influence the strength of ethnic identification influence it. It is often associated with cultural practices, customs, and belief and sometimes dress and eating habits. These major factors determine ethnicity and heterogeneity among members of a group are environmental, economic and social. Hindus in Canada generally come from one of two groups. The first is comprised primarily of Indian immigrants who began arriving in British Colombia about 100 years ago and continue to immigrate today. The other groups is made up of Canadian converts to the various section of Hinduism through the efforts of Hare Krishna the Gurus during the last 50 years and other organizations.
According to the 2001 census, of Canada there were 3 lakhs practitioners of Hinduism. Recently the Canadian Hindu Population has become more politically active, super headed primarily the Hindu conference of Canada. This organization has represented the community in taking stands against terrorism endorsing political parties and highlighting human rights violations by Islamic terrorists in Pakistan and Kashmir. Strategically, it is important to an executive to develop deep relationships with a particular ethnic audience. This relationship is particularly important for companies offering a service or providing a product that
differentiates itself in the market place.
E) Women Development : India and Canada though culturally two different countries having different levels of development there are some commonalities with respect to their leadership styles. The commonalities and general traits of the women mangers in India and Canada are as follows:
5. They have a positive attitude towards their work.
6. They possess strong communication skills.
7. They have ability to adapt talents typically through to be made domain.
8. They are better suited to newer styles of management.
9. They are more tolerant to differences so they are more skilled at managing diversity.
Therefore it is high time that the society wakes up to recognize the indomitable spirit of the women who have reached the top level of the corporate ladder, taking all the hurdles in their studies. These women not only serve as role models and icons of success but are also a beacon of hope for the coming generation.
F) Energy Consumption : Energy is the vital entry point for the improvement of quality of life of the poor. It is strongly linked to economic growth. Energy devices are needed to create job develop industries, increase economic activities and support income earning activities in rural areas. There is a great disparity between developed and developing countries regarding energy production and consumption. Nearly 35 percent of the total energy is produced and consumed by the highly industrialized countries. Developing countries are still lagging behind developed countries regarding energy production and consumption.
Energy Consumption per capital per year is 7.63 in case of Canada. While the figure of India is negligible. The following table shows the installed capacity and investment:
Table No. 2 : Installed Capacity \& Investment in Energy
Country Installed Capacity Amount Invested
g w
in \$ Billion
India 16.5 2.3

Canada $\quad 7.6$ 3.3

Source: Bloomberg New Energy Finance.
Table No. 2 revealed that the installed capacity of solar, small hydro biomass, wind marine and geothermal capacity of India is higher than Canada but investment of Canada is higher than India.

There is low consumption of energy resources in developing countries like India. Due to energy poverty in rural areas, biomass fuel in traditional form or kerosene is used for lamps, even urban slum in India are becoming a major source of pollution from such activities.

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# A Study of Certain Personality Characteristics of Students Studying in Physical Education Training College 

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#### Abstract

The study of certain personality characteristics of students studying in physical education training college and academic colleges, in which around 300 subjects were exposed to administration of Cattell's 16 PF . The statistical treatment is done through ' t ' test and standard deviation. The analysis and findings shows that the students of physical educational training colleges are more outgoing, intelligent, emotionally stable, assertive, sober, conscientious, more vent, more tough, more trusting, more practical, more forthright than the academic colleges.


## Introduction:

Sports are a biological necessity and a social institution of sportsman is a beautiful blend of the two. If he possesses distinctive biological personality, he also is subjected to social attitudes, practice and pressures. Body (Biological inheritance) demands activity and society performance and achievement sports tradition are build up and so are athletic personalities.
The present study aimed to search the personality characteristics of training college students and non-training college student.
Objectives of the Study:
The following objectives were used as guidelines for carrying out the present study.

1. To search the personality characteristics of training college male-female students.
2. To search the personality characteristics of non-training college male-female students.
3. To examine the differences between personality characteristics of training college and non-training college students.

## Methodology

## SAMPLE:

Effective Sample consists of 150 students from training college and 150 students from academic college were selected. There age range 18 to 30 years, male, female ratio was 1:1.

## Test Used For Data Collection:

Cattell's 16 PF Test
The Cattell's sixteen personality factor Questionnaire (16 PF) is an objectively score test devised by basic research in Psychology to give the most complete
coverage of personality possible in a brief time. The test consists of 187 statements which has three alternatives i.e. "Yes", "No", "Can't Say". This is very reliable measure.

## Procedure of Data Collection:

The data were collected by administering the questionnaire on a small group of Ss at a time. Every time 20 to 25 Ss were called. There seating arrangement was made in the classroom. When the Ss sat comfortably than the rapport was established through informal talk. The importance of the study was told them. Then the questionnaires were distributed and same time the standard instructions were given.

After that they were asked to fill the information which is asked on front page and then fill the questionnaire as early as possible. Completed copies of test were collected after some time. Same procedure was adopted for collecting data from different groups of Ss .

## Variables under Study:

Independent - dependent variables under study were as follows:-
Independent Variables - Training college students
Non Training college students
Dependent Variables: 16 Personality factors
Design of the Study: Since this was the survey type study no specific design would be used.

## Statistical Treatment of Data:

At the first stage data will be treated by mean and standard Deviation and the second stage data will be treated by ' T ' Test

## Conclusion:

Final conclusion were drawn on the basis of the results following references were drawn.

1. The training college students are more outgoing than non-training college students.
2. The non-training college students are more intelligent than training college students.
3. The training college students are more emotionally stable than non-training college students.
4. The training college students are more assertive than non-training college students.
5. The non-training college students are more sober than training college students.
6. The non-training college students are more conscientious than training college students.
7. The training colleges students are more vent some than non-training college students.
8. The training college students are more tough -minded than non -training college students.
9. The training college students are more trusting than non-training college students.
10. The training college students are more practical than non-training college students.
11. The non-training college students are more forthright than training college students.
12. The training college students are more placid (self-assured, confident) than non-training college students.
13. The training college students are more experimenting than non-training college students.
14. The training college students are more self-sufficient than non-training college students.
15. The training college students are more controlled than non-training college students.
16. The training college students are more relaxed than non-training college students.

## Recommendations:

1. The teachers in training college ought to maintain a cumulative record of every student's individual behaviour tendencies. This eliminates unnecessary disadvantages faced by a student during his learning career. This is applicable to academic colleges as well.
2. The teachers and students of training college should interact, understand and communicate in a better way so as to establish a good relationship which will deliver better performance and good results. This applies to coaches who can form guidelines in effective communication.
3. Training college should prepare their syllabus in accordance with student behaviour tendencies in general and good relationship between teacher and student in particular. National and state level programmes can be designed accordingly.
4. This research is open for further study.

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## Polarimeter: Quality Control for Pharmaceuticals

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1. Introduction: A light wave is an electromagnetic wave which travels through the vacuum of outer space. It is an electromagnetic wave which is a transverse wave having both an electric and magnetic component. A light wave, which is vibrating in more than one plane, is referred to as unpolarized light. Light emitted by the sun, by a lamp or by a candle flame is unpolarized light. Such light waves are created by electric charge which vibrates in a variety of directions, thus creating an electromagnetic wave which vibrates in a variety of directions. Light whose electric field oscillates in a particular way is said to be polarized. If the oscillation is in a plane, the light is said to be plane polarized. Plane polarized light can be polarized in different directions. Some crystals and organic materials have a twisted molecular structure that produces an interesting effect called "optical activity". A Polarimeter is an optical instrument that is used to measure the optical activity of particles in a solution. The polarimetric method is a simple and accurate means for determination and investigation of structure in macro, semi-macro and microanalysis of expensive and non- duplicable samples. Polarimetry is employed in quality control, process control and research in the pharmaceutical, chemical, essential oil, flavor and food industries. The molecule that rotates the direction in which the light is vibrating as it passes though it is an optically active substance has its own specific rotation. This helps in the identification of types of particles. Conventionally, when considering polarization, electric field vector is described and the magnetic field is ignored since it is perpendicular to the electric field and proportional to it. It is possible to transform unpolarized light into polarized light. Polarized light waves are light waves in which the vibrations occur in a single plane. The process of transforming unpolarized light into polarized light is known as polarization.
1.0.1 Basics of Polarization: Polarization is a property of waves that describes the orientation of their oscillations. For transverse waves such as many electromagnetic waves, it describes the orientation of the oscillations in the plane perpendicular to the wave's direction of travel. The oscillations may be oriented in a single direction (linear polarization), or the oscillation direction may rotate as the wave travels (circular or elliptical polarization). Circularly polarized waves can rotate rightward or leftward in the direction of travel. Wave can be classified in two types: Longitudinal Wave: The thing that is waving in the same direction as the velocity of the wave e.g. sounds waves and a wave traveling down a slinky. Transverse Wave: The thing that is waving perpendicular to the velocity of the wave e.g. water waves and waves on a string.
1.0.2 Principle of Polarimetry: Polarized light is that has passed through a 'polarizer', which forces the randomized electromagnetic waveforms into one plane. When this plane-polarized light is passed through an optically active substance (e.g. solution of an optically active chemical) the PLANE of polarization
is rotated by an amount which is characteristic of the test substance. Polarimeters detect the position of the PLANE and compare it to its original position, the difference being the rotation, normally expressed in angular degrees ( $\left.{ }^{\circ} \mathrm{A}\right)$. A sample tube containing the test liquid (solution) is placed between two polarizing elements (Polaroid strip or a calcite crystal). The first element, the polarizer, polarizes the light before it passes into the sample. The second element, the analyzer, can be rotated to counteract any rotation by the sample and hence locates the resultant angular position of the light plane and hence the amount of rotation caused by the sample. In the sugar industry, the rotation is expressed on a different scale, the International Sugar Scale (ISS), denoted as ${ }^{\circ}$ Z. Polarimeters that are designed for particular use in the sugar industry are called Saccharimeter.
1.0.3 Polarimetry and Polarimeters: Polarimetry is a sensitive, nondestructive technique for measuring the optical activity exhibited by inorganic and organic compounds. A compound is considered to be optically active if linearly polarized light is rotated when passing through it. The amount of optical rotation is determined by the molecular structure and concentration of chiral molecules in the substance. Each optically active substance has its own specific rotation. The polarimetric method is a simple and accurate means for determination and investigation of structure in macro, semi-micro and micro analysis of expensive and non-duplicable samples. Devices that measure the optical characteristics of light beams and samples are known as Polarimeters. There are two broad classifications of Polarimeters; (1) Stokes vector Polarimeters measure the polarization properties of a beam of light. (2) Muller matrix Polarimeters measures the polarization properties of a particular material.[14]
1.1 Problem Definition: The applications of Polarimetry are widespread, accordingly requirement specifications of Polarimeter differs. The cost of these Polarimeters ranges up to Rs. 200,000 depending on their offered specifications. But, some applications like demonstrations of Principle of Polarimetry in Laboratory need not to have this high resolution. A Polarimeter with less resolution is sufficient in this case.
1.2 Aim: The aim of this project is to design a low cost Polarimeter for the purpose of Laboratory use, Pharmaceutical and Sugar industry.
1.3 Scope: The comparison table for specifications of the proposed project design and some International manufacturers is given below: [16]

Table 1.1: Specifications Comparison

| Parameters | Rudolph (Autopol II) | Kruss Opt (P8000) | Proposed Project |
| :--- | :--- | :--- | :--- |
| Range | +90 to -90 | +90 to -90 | +90 to -90 |
| Measurement <br> Mode | Optical rotation, concentration, <br> specific rotation | Optical rotation, <br> Concentrations | Optical rotation |
| Light Source | Tungsten Halogen | Tungsten Halogen | Yellow LED |
| Wave Length | Multiple Wavelengths | 589 nm | 589 nm |
| Cell Length | Up to 200 | Up to 200 | 155 |
| Display | 4 digit LED display | LCD $320 \times 240$ pixel <br> monochrome | 4 digit LCD display |

1.3.1 Manufacturers: Few leading manufacturers of Polarimeter in the world and India are listed below:
World : Bellingham + Stanley; Jasco Instruments; Rudolph; Perkin Elmer India : Star Laboratory, Ambala Cantt, Haryana; Rico Scientific, New Delhi; Labline Stock Centre, Mumbai; Guru Nanak Instruments, New Delhi; Lab junction Instruments, Pune; Eastern Instruments (Kolkata); Rajdhani

## 3. System Development:

3.1 Schematic of the System: A very simple form consists essentially of two crystals of some polarizing substance such as tourmaline. The solution to be tested is placed between them. Light is then directed through the first crystal or polarizer. After passing through the solution its plane is rotated; the direction and the degree of rotation are indicated by the position in which the second crystal must be placed to permit passage of the light that has gone through the solution.


Figure 3.1 : Schematic of the System
As shown in the schematic, the system consists of a monochromatic light source, a polarizer, a sample cell, a second polarizer, which is called the analyzer, and a light detector. The analyzer is oriented $90^{\circ}$ to the polarizer so that no light reaches the detector. Plane-polarized light is created by passing ordinary light through a polarizing device, which may be as simple as a lens taken from polarizing sun-glasses. Such devices transmit selectively only that component of a light beam having electrical and magnetic field vectors oscillating in a single plane. The plane of polarization can be determined by an instrument called a Polarimeter. Monochromatic (single wavelength) light, is polarized by a fixed polarizer next to the light source. A sample cell holder is located in line with the light beam, followed by a movable polarizer (the analyzer) and an eyepiece through which the light intensity can be observed. In modern instruments an electronic light detector takes the place of the human eye. In the absence of a sample, the light intensity at the detector is at a maximum when the second (movable) polarizer is set parallel to the first polarizer ( $\alpha=0^{\circ}$ ). If the analyzer is turned $90^{\circ}$ to the plane of initial polarization, all the light will be blocked from reaching the detector.

### 3.2 Block diagram of the system:



Figure 3.2 : Block diagram of the System
3.3 Design Specification: The design of the system is based on the same schematic that is described in previous section. A system is designed to meet following specifications to achieve the objective of a low cost Polarimeter. Specifications: Power supply: 230V AC, +/- 12VDC, 5VDC; Display: 16 *2 LCD; Deviation Count Unit: Degrees; Light Source: LED; Beam Diameter: 3 mm; Filters used: Polaroid; Sample tube: Glass; Reading time: 5 min ; Tube Diameter: 20 mm ;

Tube Length: 155 mm ; Measurement Mode: Optical rotation; Interface: RS232


Figure 3.17: Circuit diagram of System [7]
4. Results and Discussion: During the course of development of the project each module was built and tested one by one. After completion of project every part was tested. Following were the different experiments performed during the course of implementation.
4.1 Beam diameter Adjustment: It was desired to prepare beam of approximately 3 mm diameter to pass through the sample. To have beam of proper size the distance between source, lens and reflecting mirror was necessary to be chosen properly. This was done by taking trial from different spacing and by obtaining image on wall.
4.2 ADC Testing: When analog to digital convertor was interfaced to microcontroller, it was necessary to ensure correct interface to check whether conversion done by ADC is correct. This was done by applying known voltage to ADC input and converted digital format was taken by microcontroller through one port and simultaneously put it on another port. This was also checked by passing input from ADC continuously to PC through RS232 and displayed on screen. Now, it was checked that the hex value being transmitted to PC is same as the expected for instantaneously analog input.
4.3 Gain adjustment of Detector amplifier: Detector amplifier is supposed to produce the output in the range of $0-5 \mathrm{~V}$, which then can be applied to ADC i.e. when source is "ON" and maximum intensity of light is incident on Photo Detector, the output produced by detector amplifier should be 5 V . This was done by adjusting the gain of amplifier to get 5 V when source was "ON".
4.4 Variable 5V simulation: Even in the absence of detector and detector amplifier a variable signal of the range $0-5 \mathrm{~V}$ can be applied to ADC for testing purpose. This arrangement is done on the same board as that of detector amplifier using reference ( 5 V ) supply and pot.
4.5 Average and Maxima calculations testing: The calculations done in the main programming was necessary to verify i.e. calculating the position of analyzer corresponding to which light intensity was maximum. Here all the readings received by microcontroller are simultaneously transmitted to PC. This helped to verify the calculations done by the Microcontroller.
5. Conclsuions: 5.1 Observations and Readings: Few industries were visited to see actual working of Polarimeter, also few samples were tested viz. Emcure

Pharmaceuticals Ltd, Rajiv Gandhi, Biotech Park, Hinjewadi, Pune Material tested: Metroprolol Tartrate usp, 0.5 gm in 25 ml (2\%) of water, specific rotation observed was 8.434 Deg, whereas the range of specific roration for above material available in literature is 6.5 to 10.5 Deg. Above material was tested on the unit developed by me and angle of specific rotation obtained is 9.32 Deg. And Twilight Latika Pharma Limited, Pimpri, Material tested : Dextrose : Specific Optical Rotation +52.5 Deg to +53.3 Deg observed, it is determined in a solution prepared by dissolving 10 g in 80 ml of water adding 0.2 ml of 5 M ammonia, mixing well, allowing to stand for 30 minutes and diluting to 100 ml with water and Lactose : Specific Optical Rotation +54.4 Deg to +55.9 Deg observed, it is determined in a solution prepared by dissolving 10 g in 80 ml of water by heating to 50 Deg and allow to cool. Add 0.2 ml of 6 M ammonia, mixing well, allowing standing for 30 minutes and diluting to 100 ml with water. It is observed that as a general practice every Polarimeter is first calibrated using sucrose solution dissolved in distilled water at different concentrations, I followed similar methodology in my project, testing was carried out using multiple concentrations of sucrose in distilled water, to check proper working of Polarimeter, so also to establish the repeatability, sample readings can be seen in figure 5.1. [8]


Figure 5.1: Sample Observations
Above figures shows observations taken on various materials, the out put of the Polarimeter is given to PC, and displayed on screen. One of the sample results shown on hyper terminal is reproduced above
5.2 Conclusions: The Polarimeter is used to measure optical rotation of a number of optically active components. As per the system design, the detector amplifier was built using PIN diode and signal conditioning circuit for the same was implemented \& tested. It is producing signal of $0-5 \mathrm{~V}$ successfully. The next module i.e. ADC module was given the input from detector amplifier. This is converting the analog signal from detector to equivalent digital format and sends it to microcontroller. The programming is done in microcontroller using C language to find out the maxima position of the analyzer. This was tested by applying simulating signals to input of the ADC. Using the same, the calculations being done by microcontroller are cross-checked and found to be correct. The LCD interface is used to display the final readings was also implemented. Finally,
integration of all these modules in the mechanical assembly, will measure the optical rotation of the sample to the required resolution. The mechanical assembly was tested by comparing results of sample solution with that of reference solution and found to be in line with the requirement. The sample solution of sucrose or glucose will be tested and will be compared with the readings of from Pharmaceutical Industry (reference book "Indian Pharmacopeia"). Thus it will be helpful in analyzing the chemicals qualitatively and quantitatively in various laboratories, colleges.
5.3 Future Scope: Since the optical rotation property of any chemical is also dependent on the temperature, adding a temperature indication and control i.e. thermostat will add the value to the instrument. Because of short time, this could not be implemented in this project. Further, instrument can be calibrated or modified to show concentration of a specific solution (if we know the specific rotation), if the application is dedicated. The PC interface of the instrument can be made further strong by designing a data acquisition system that will store the history of number of samples.

## Appendix II: Polarimeter Photographs



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# Spiritual Mobile Learning: An Innovative platform for Commerce Education 

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#### Abstract

M-learning is the current technology that used to resolve the above challenges of traditional learning. Recently, wireless and mobile technologies are under the great advancement. Now we are in Mobile age. With the new paradigm "anytime and anywhere computing" a shift from "Electronic" to "Mobile" services has begun. Currently, Ecommerce is extended to M -commerce and E-learning to M -learning. The research found that mobile technologies were in common use in some commercial sectors, but their use purely for learning was rare. However, mlearning lends itself to new methods of delivery that are highly suited to the "just enough, just in time, and just for me" demands of twenty-first century learners. It uses the current mobile and wireless computing technology to complement the effectiveness of traditional learning process. The students are willing to use Mlearning. The acceptance level of the students is high, and the results obtained revealed that the respondents almost accept M-learning as one method of teaching and learning process and also able to improve the educational efficiency. It examines current needs in industry and society to argue for this shift, provides some pointers to possible solutions, and considers the role mobile and wireless technologies can play in current educational project.


## Introduction:

M-learning, is a form of e-learning that specifically employs wireless portable communications devices to deliver content and learning support. Advances in mobile computing and handheld devices (ipod, cell phones, smart phones, PDA, notebooks, etc), intelligent user interfaces, context modelling, wireless communications and networking technologies (WI-FI, Blue Tooth, GPS, GSM, GPRS, 4G) have precipitated mobile learning. M-learning is gaining prominence because of the increasing desire for lifelong learning which is usually undertaken by learners with other life obligations related to work, family and society. Such learners are constantly on the move and require devices that facilitate learning on the go. M-learning just like its parent field, e-learning, has not fully matured. New learning technologies are best appreciated if one can understand the technology at play, learning styles of the technology users, the pedagogical aspects of using the technology for teaching and learning and organizational or institutional attitude towards the technology.

## Spiritual concept of Mobile Learning:

M-learning focuses on the mobility of the learner, interacting with portable technologies, and learning that reflects a focus on how society and its institutions
can accommodate and support an increasingly mobile population. In other words mobile learning decreases limitation of learning location with the mobility of general portable devices. M-learning is convenient in that it is accessible from virtually anywhere. M-Learning, like other forms of E-learning, is also collaborative; sharing is almost instantaneous among everyone using the same content, which leads to the reception of instant feedback and tips. M-Learning also brings strong portability by replacing books and notes with small RAMs, filled with tailored learning contents. In addition, it is simple to utilize mobile learning for a more effective and entertaining experience. During the past few years, mobile and wireless technologies are becoming mainstream, and again, it is only natural that the scientific and industrial communities are experimenting to investigate whether and how these technologies can be used to improve education. This has given birth to the Mobile Learning (m-learning) field, which has already matured enough to provide some concrete results. The next foreseen, and currently emerging shift concerns learning in pervasive environments (p-learning), where the new ambient intelligence infrastructure is exploited to improve learning. A related aim is to inform the design of new environments and technologies to support mobile learning, since the work described here has been developed through a series of projects to design mobile learning technology.
Try to focus on M-learning:
It is the learner that is mobile, rather than the technology: Initially we had focused on the design of specific portable technologies, but a series of studies for MOBllearn of everyday learning indicated that the interactions between learning and technology are complex and varied, with learners opportunistically appropriating whatever technology is ready to hand as they move between settings, including mobile and fixed phones, their own and other people's computers, as well as books and notepads.
Learning can generate as well as satisfy goals: Learning can be initiated by external goals (such as a curriculum or study plan), or by a learner's needs and problems, or it can arise out of curiosity or serendipity, prompting the learner to form new goals which may then be explored through formal or informal study.
The control and management of learning can be distributed: In a classroom the locus of control over learning remains firmly with the teacher, but for mobile learning it may be distributed across learners, guides, teachers, technologies and resources in the world such as books, buildings, plants and animals.

## Mobile learning can both complement and conflict with formal education: Learners can extend <br> their classroom learning to homework, field trips, and museum visits by, for example, reviewing teaching material on mobile devices or collecting and analysing information using handheld data probes. They could also disrupt the carefully managed environment of the classroom by bringing into it their own multimedia phones and wireless games machines, to hold private conversations within and outside the school.

Interrelationship between Teacher \& Students:

The challenges facing education and training providers who are steeped in traditional delivery styles when confronted with digitally literate students, where, rather than simply receiving and memorizing the wisdom of their elders, which has been the tradition for millennia, students are now demanding training that meets their specific information needs. In this, specific divide between traditional teaching techniques and the attitudes of contemporary youth. M-learning also creates learning opportunities that are significantly different to those provided by e-learning (at a desktop) or paper-based distance learning. On-line, wirelessly connected PDAs(Personal Digital Assistant) and laptops can facilitate a greater level of interaction when used in contact sessions. Opportunities for polling groups' opinion on various issues exist. Learners can vote to choose alternative activities and topics for discussion during lectures.

## Integrate Self Learning:

We have developed an SMS quiz engine that includes an online editing tool. We have also developed five sets of materials that match the themes used for other learning materials and complement the use of these. The approach consists of circulating a leaflet with reference information on one side and a five-question quiz on the other. Learners text in their answers and are sent a reply. This approach allows learners with the least sophisticated mobile phones to take part in some mobile learning and can be a useful and entertaining addition to any kind of classroom lesson or e-learning.

## Supportive devices for M-learning:

Mobile devices and personal technologies that can support mobile learning, include:

- E-book
- Handheld audio and multimedia guides, in museums and galleries
- Handheld game console, modern gaming consoles such as Sony PSP or Nintendo DS
- Personal audio player, e.g. for listening to audio recordings of lectures (podcasting)
- Personal Digital Assistant, in the classroom and outdoors
- Tablet PC
- UMPC, mobile phone, camera phone and SmartPhone

Technical and delivery support for mobile learning:

- 3GP For compression and delivery method of audiovisual content associated with Mobile Learning
- GPRS mobile data service, provides high speed connection and data transfer rate
- Wi-Fi gives access to instructors and resources via internet


## Authoring:

- Learning Mobile Author, e.g. for authoring and publishing WAP, Java ME and Smartphone


## Need Of Mobile Learning:

1) Mobile learning could be utilised as part of a learning approach which uses different types of activities (or a blended learning approach).
2) Mobile learning supports the learning process rather than being integral to it.
3) Mobile learning needs to be used appropriately, according to the groups of students involved.
4) Mobile learning can be a useful add-on tool for students with special needs. However, for SMS and MMS this might be dependent on the students' specific disabilities or difficulties involved.
5) Mobile learning can be used as a 'hook' to re-engage disaffected youth.

## Limitations Of Mobile Learning:

Knowledge imbalance between teacher and learner: while university teachers' special position amongst their class remains justified to some extent, in many circumstances, it is now a commonplace observation that in a variety of domains students can be seen to be as knowledgeable, informed, or skilled (at least in regard to specific aspects of the topic) as their teachers.
Disconnect between on- and off-campus life: anecdotal evidence from learners suggests that the perceived disconnect between the theory encountered during study and their own everyday lived experience is one of the main factors affecting student satisfaction. The strong focus on authentic learning which has been a major feature of pedagogical developments in higher education in recent years emerged partially in response to such problems, and aims to draw direct connections between study material and assessment tasks on the one hand, and students' current and future (work) life on the other.
In the M-Learning venue: Students are incapable of printing, simply because it required a network connection.This is obvious not feasible in a number of real-life situation.
Ensure bigger students engage as M-learning is based on modern technologies, which students use in everyday life.

## Summing Up:

The framework described in this paper is a step towards an integrated theory of mobile learning that could inform both the analysis of learning in a mobile world and the design of new technologies and environments for Commerce learning.
Learning is mediated by knowledge and technology as instruments for productive enquiry, in a mutually supportive and dynamically changing relationship. This can
be seen as a challenge to formal schooling, to the autonomy of the classroom and to the curriculum as the means to impart the knowledge and skills needed for adulthood. But it can also be an opportunity to bridge the gulf between formal and experiential learning, opening new possibilities for personal fulfilment and lifelong learning. Many education and training providers recognize the benefits of mobile learning, but there appears to be limited adoption for educational use, which was attributed to the age and ability of teachers and trainers, the cost of providing mlearning devices and infrastructure, the slow rate of change in large educational institutions, and that mobile devices are not designed with the education market in mind. M-learning is a best way of learning system to complement the current traditional learning system in Commerce. So, it can be inferred that Mlearning is recommend for all institutions to get its advantage.

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# A Study of Body Fat and Body Mass Index Ratio of Mountaineers 

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#### Abstract

: Mountaineering is gaining great popularity in India. Lot of individuals are performing this activity due to its versatility. A necessity has been felt to know more about the mountaineering field and mountaineers. Various researches regarding the equipment, $\mathrm{O}_{2}$ consumption, Hb level, etc have been done, but were done on limited mountaineers (5-10 mountaineers) or in laboratory conditions. The researcher conducted the study titled, A Study of Body Fat and Body Mass Index Ratio (BMI) of Mountaineers as such type of research in mountaineering field is new and contributes to morphological status of mountaineers in India. To know the Body fat content and Body Mass Index of mountaineers the researcher administered the Bioelectrical Impedance Test and Height \& Weight test respectively on 270 male mountaineers aged from 17 to 40 years. Mean and standard deviation was the statistical tool used. From the analysis it can be known that mountaineers show an increase in fat levels with increase in age, but show normal BMI. From the study it also shows that BMI shows normal even when the mountaineer shows high in fat content, by which BMI should not be considered to be as a adequate measure to find out the fat content in mountaineers, where as Bioelectrical Impedance is a better way to know the fat content.


## Introduction:

Adventure activities have been emerging in India with great pace and are gaining continuous attention by Indian youth. It gives you a totally new thrilling experience and a view point to lead life with new enthusiasm and courage. People having an adventurous approach to life are outgrowing in number and such kind of sports is acting as a new medium to serve and fulfill their desires. Adventure Sports involves activities which are unusual, risky and exciting as well. An adventure sport is bold undertaking which involves hazardous action and whose outcome is uncertain. Adventure Sport comprises a very range of activities. Mountaineering, rock climbing, skiing, river rafting, kayaking, etc, are some popular adventure sports. Adventure Sports are undertaken at various places depending on the nature of the topography and the weather conditions. Activities like mountaineering, trekking, hiking, camping and rock climbing are undertaken in hilly and mountainous areas. Basic education is sufficient in order to get into the field of Adventure Sports. "Like competitive games, adventure sports also require a lot of grit and effort. But sadly, everybody does not get the same weightage. Every adventurer goes through the same mental and physical exercises to
achieve the goal." Due to the efforts of Pt. Jawaharlal Nehru, an ardent mountain lover, mountaineering field strengthened its roots in India.
To perform the various adventure sports and mountaineering esp. Rock climbing where one has to be fit and also have a lower weight. The climber requires lot of strength, as well as needs lighter weight during climbing. A light weight climber is much swifter and agile than a heavy climber. He also saves much of his energy as he has to overcome less weight than a heavy climber. So a study to know the Body Fat content and BMI was performed.

## Objectives:

The purpose of this study is to know the Body fat content and BMI of Mountaineers. This study can form the base for further study on mountaineers diet, food habits, calorie requirements and other related factors.

## Methodology

## Population \& Sample:

A total of 271 male mountaineers aged between 17 to 40 years undergoing various upgradation courses at Nehru Institute of Mountaineering, Uttarkashi were chosen as sample for the study.

## Tools of Study:

The researcher conducted the following tests: Height, Weight, and Bioelectrical Impedance Analysis in order to know the Body Mass Index Ratio (BMI) and Body Fat content of mountaineers respectively.
The BMI categories and the normal body fat ranges for males are:

| Body Mass In | (BMI) | Body Fat \% |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 18.5 or less | Underweight |  | MEN | WOMEN |
| 18.5-24.9 | Normal | Normal Range | 10-20 \% | 15-25 \% |
| 25.0-29.9 | Overweight |  |  |  |
| 30.0-34.9 | Obese I |  |  |  |
| 35.0-39.9 | Obese II |  |  |  |
| 40 or greater | Extremely Obese |  |  |  |

## Analysis:

Descriptive statistics was used to know the mean and std. deviation of BMI and Body fat content. For a detailed analysis five groups of mountaineers according to their age (i.e. 17-20 years, 21-25 years, 26-30 years, 31-35 years and 36-40 years) were prepared and analysis was done.
The detailed analysis according to groups is given below:

|  |  |  | N |
| :--- | :--- | :--- | :--- |
| Group 1 |  |  |  |
| BODYFAT | 61 | 15.73 | 5.27 |
| BMI | 61 | 19.97 | 2.19 |
|  |  |  | Std. Deviation |
| Group 2 |  |  |  |
| BODYFAT | 107 | 18.02 | 4.89 |
| BMI | 107 | 20.85 | 2.30 |


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Group 3 |  |  |  |  |
| BODYFAT | 72 | 20.72 | 4.91 |  |
| BMI | 72 | 21.88 | 2.64 |  |
|  |  |  |  |  |
| Group 4 |  |  |  |  |
| BODYFAT | 22 | 21.79 | 5.53 |  |
| BMI | 22 | 22.28 | 2.00 |  |
|  |  |  |  |  |
| Group 5 |  |  |  |  |
| BODYFAT | 9 | 23.38 | 5.73 |  |
| BMI | 9 | 22.36 | 3.24 |  |

## Results:

1. From the analysis it is clear that body fat and BMI of mountaineers from group 1 is normal.
2. From the analysis it is clear that body fat and BMI of mountaineers from group 2 is normal.
3. From the analysis it is clear that body fat of mountaineers from group 3 is above normal but show normal BMI.
4. From the analysis it is clear that body fat of mountaineers from group 4 is above normal but show normal BMI.
5. From the analysis it is clear that body fat of mountaineers from group 5 is above normal but show normal BMI.

## Conclusion:

1. From the above results it can be known that mountaineers show an increase in fat levels with increase in age, but in considering the BMI mountaineers show normal BMI.
2. In order to lower the fat levels the mountaineers should undergo a low fat diet as well as perform exercise in order to keep it under normal conditions.
3. From the study it also shows that BMI shows normal even when the mountaineer shows high in fat content, by which BMI should not be considered to be as a adequate measure to find out the fat content in mountaineers, where as Bioelectrical Impedance is a better way to know the fat content.
4. It was suggested by some expert mountaineers and few other mountaineering instructors that mountaineers require excess amount of fat than normal as mountaineers perform strenuous mountain climbing activity for more time as well as under cold conditions. Hence a study on energy requirement, energy expenditure and normal fat range for mountaineers is to be done to know the exact body fat requirement for mountaineers.

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# Mechanical Analysis of "Force" Used In Games and Sports 

## Mr. Devendra Dhakad

We will discuss about force, which is very much Important in physical Education and, Games and Sports. Mainly force is used in Ball Games and Athletic, throwing events. In ball games forced is used to cover expected distance of the ball. In Athletic throwing events force is used to cover maximum distance, the event may be discus, shot, javelin or hammer.
If we apply force to any substance it moves from one place to another, if the force applied, in sufficient ratio of the mass and weight of substance. Force is either a pull of push, which changes state of body.
Force is a pull or push, which moves or tends to move an object, which is, in the resting position. Accelerates or decelerates, stops or tends to do so, changes the direction or tends to do so of a moving object. In other words force is used for the effect to change the position of any substance to cover optimum distance.

As per definition of Newton's first low "The force is defined as the action which changes or tries to change the state of resting position of body."

Measure the Force - The rate of change of momentum is directly proportionate to force. When the weight of body increases, force also increases.

In Second low of motion- Force is measured as the product of mass,(Equipment) and acceleration of the body, or the rate of change of momentum.

Force is vector quantity as it has got both, the magnitude and direction. Thus it can be represented by an arrow head, were the length of the arrow indicated the magnitude of the force to a convenient scale and the head of the arrow indicates the direction of force.

Force normally represents as a pull or push form the point of application.

## Factor's Determining the Force:

Before applying any type of force where the force is to be applied and how much is applied for particular equipment. In shot put maximum force is used but in football, to use the force as much it is essential to pass the ball to the team mate.

1) Magnitude: -

The force requires the inertia of the body resistance and mass of the body. The force is to be used to overcome the above to that is the magnitude of the force. When the door is fixed we use more force because inertia of the door and surrounding resistance to overcome this. If mass increases, force increases, velocity increases, force increases.

## 2) Direction of Application:-

It means in which direction force is applied. If a table is tied with to rops and pulling is to same direction by two men, the table include with more velocity. When the length of equipment increased, we get more horizontal force.
3) Point of Application of force: -

This determines to what direction and what way the body moves, or nature of movement, when we want a linear motion, then the force is to be applied to the
center of the object. If we apply force to the particular side of the object, or away from the center, there is angular motion, for effective motion and movement; the force should applied parallel to the direction. While running or walking the force is applied to the earth, then the body goes opposite side then we can run or walk. Above all means, point of the application determines a nature of movements.
Principles Related To Force:

1) Greater the mass of the object imparting the force and the faster it is moving, force will be in more amount. It means the force is imparted in more amounts. $\mathrm{F}=\mathrm{MA}$. If the velocity is more, means the objects is moving faster force increases.
For Example: - Moving tennis and cricket ball. Cricket and tennis ball moving faster because of having more mass there the force increases, approach run in broad jump for gaining better achievement force will be increased for that, we take approach run in sufficient amount. In Hockey, stick is used with more force and the length of stick for more range.
2) The greater the types of distance over which acceleration can be developed. Then greater velocity will be possible. If we applied a force for longer direction, force imparted on the object for the more distance and more acceleration.
For Example: - Balling in cricket, Hammer swinging.
3) An object acted upon, by two forces it means that the object moves in the direction of the resultant force.
For Example: - Smashing in volleyball-two forces are acting on the ball.1) Hit of the smasher. 2) Gravitation force then the ball moves in the direction of resultant force. Resultant Force Hokey Stick Ball Resultant Force
4) If linear motion is desired, the force is to be applied to the center of gravity of the object.
For Example: - Floating service in volleyball, Simple pass in football.
For linear motion the force should be applied in the center of the object.
Kicking football for short distance to team meat with ground level.
5) If the force is applied, off the center the body object gets angular motion.

For Example:- a) In football-if a ball is kicked off the center ball travels in the angular motion.
b) Spinning service in volleyball, Banana kick in Football
6) The greatest total force is attainable - when all the forces that can contribute to the desire motion or employed in the same direction and in the same sequence.
For Example: - More than one force all the forces should act in the same direction- Tennis service in volleyball- movement of heating arm, movement of non heating arm and leaving back to use body force also. Approach run for any movement, force coming from different segment of the body. They all should be in the same direction and without breaking the movement.

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# The Crisis of Being a Woman: A Study of Githa Harharan's the Thousand faces of Night 

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Githa Hariharan has become a literacy luminary with her first novel "The Thousand faces of Night (1992) which has added a feather in her cap. The commonwealth prize. The book is the best book from Eurasian region. It brings alive the underworld of Indian women's lives where most dreams ever thwarted and the only constant is survival.

The novel probes into the problems of women at various levels in society and raises a number of feminist questions. It advocates gender equality and exposes the patriarchal callousness in recognizing woman's needs and giving her emotional support. The novel describes women's struggle of existence and expression of their individuality in the male dominant society.

The book concerns the lives of three different Indian women Mayanmma, Sita and Devi bring out three different facets of the problems of married women Mayamma is the old woman who takes care of the household duties in Mahesh's house. Mayamma belongs to the lower middle class family. Mayamm's married life was miserable one, since she has to face the cruelty of perverted mother -in law and endure the recklessness of the irresponsible husband. Her bitter experience with her mother-in-law taught her not to question. The woman had no freedom to leave their husband's house or to go back and they had to continue to suffer till destiny took ever.

Devi's mother sita faces a different problem. Sita's life, is illustrative of the life style of many an Indian woman who gives priority to the family over the self. In a society where men were convinced that after marriage the woman's services are for the husband, in laws and the children, Sita could not expect a better situation than what she had. Sita is a talented woman and could play the Veena excellently well. When once she is enthralled in playing the Veena forgetting her duty, she is reprimanded by her father - in - law. Hurt by his insulting words, she decides to give up her art and continue her duty as a obedient daughter-in-law. She takes Gandhari of the Mahabharata as her role model. When Gandhari is hurt by the fact that she is wedded to a blind man, she revolts by blinding herself. When Sita is offended by the words of her father-in-law she takes the vow of not even touching her Veena. She devotes all her attention to her daughter and the family.

Brought up in the Indian culture, Sita could quickly take up this decision, for the Indian culture teaches and trains women to compromise and to sacrifice personal desires for the welfare of the family.
If Mayamma and Sita are the victims of the earlier patriarchal set up. Devi is their modern counterpart in the present patriarchal set up. Devi has Amba as her role model who has vowed to take revenge of Bhishma. Devi treats herself as a
woman warrior in fighting against any oppression. Her marriage with Mahesh proves a failure and her emotional part of her life is not fulfilled. Through Devi the writer portrays the problematic life of woman in the transitional period. In the earlier set up woman had the subordinate role of serving man. The ideas inculcated in her through myth and religion and even the formal education given to her were oriented towards molding her personality in such a way as to ensure the smooth family atmosphere. With the new awareness came in the expectation of the better status. But inspire of her equality in status and the same kind of education for both the sexes, she is still expected to take up the subordinate role. Devi, Sita's daughter is educated abroad and comes back to India totally unprepared for the kind of life she has to live. She marries Mahesh an educated businessman. Devi is equal to Mahesh in every way, but in practical life there is no real equality. Devi remains at home having no chance to impress her knowledge. When she wants to study Sanskrit, Mahesh ask, "What will you do with all this highbrow knowledge"? Mahesh does not share business matters with Devi, considering it to be un-necessary. He is totally unaware of her Ioneliness. When Devi ask him to postponed his business trip he comments ironically "Why don't I pray to be born a woman in my next birth ...then I won't have to make a living at all "(TFN 54). He wants Devi to attend to his father, himself to manage the housework and to receive his friends well. Mahesh like all other men of Indian society wants his wife to be a proper housewife.
"Devi, he said patiently his eyes on the page where I had been interrupted. "Did your mother need books to tell her how to be a wife? I have never met a woman more efficient than your mother."

The marital disharmony that is common in the modern age has been high lighted through Devi - Mahesh relationship. The entire social system, comprising religion myth education and other social harms focused on training women to be secondary. Woman had to endeavor to come out of these shackles created and maintained carefully throughout generations. Her feminist thinking overtakes her and she realizes the meaninglessness in her mechanical life with Mahesh. She feels that she must live her life even if it is for a day she thinks of Gopals the artist whose passionate and lively music enthralls he and she decides to spend a few days with him enjoying his music and art.
"I can learn to be a woman at last. I will soon high on the crest of Gopal's wave of ragas and what it I fall with a thud, alone the morning after? I will walk on seeking a goddess who is not yet made.

Githa Hariharan in 'the Thousand faces of Night Portray three kinds of women. The first category is the victim Mayamma the care taker is victim of not only men but alos women The second category of women is sacrificing type for the welfare of the family. Sita mother of protagonist Devi sacrifices herself for the sake of her husband first and for her daughter Devi later. The third type of woman character is the liberated one who becoming conscious of her position stands on her own at any cost. Devi belongs to this category of liberated women. First she rejects Dan then detaches herself from Mahesh protest silently her father-in-law \&
ultimately Gopal. Devi becomes a liberated woman \& finds comfort in the company of her mother Sita. Almost all the women characters in the novels of Githa Hariharan co-operate with other women to achieve their rightful, equal and independent status.

It is indeed a goal directed activity to liberate women from "the dependence syndrome a socity sans discrimination including gender inequality.

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# A Comparative Study of Philosophies of Prashnopnishad and Mundacopnishad with Educational Perspective <br> Chandrhasy D. Sonpethkar: Lecturer, SSS's Indira College of Education (M.Ed.), Vishnupuri, Nanded- 431606 

## 1. Introduction:

According to Pithagoras philosophy is the highest music. According to the Jod C.E.M., philosophy is the record of the Soil's adventure in the cosmos.(Pragat shaikshnik Tatwanyan /- Dr. Dunakhe)
There is devotion of India is significant on the world-level. Indian philosophy appears through four Vedas, six sciences, eighteen puranas, Upanishadas \& Darsans like Jain Boudha etc.
Vedic literature is situated at four stages.
1 Samhita
2 Brahmin
3 Aranyaka
4 Upanishads
There are above three hundreds Upanishads are available. However, Shankaracharya had described only ten Upanishads. Therefore, they are specially valued. Their names are-

1. Ishopanishad
2. Kenopanishad
3. Kathopanishad
4. Prashnopanishad
5. Mundakopanishad
6. Mandukyopanishad
7. Taittariyopanishad
8. Chandogyopanishad
9. Aitariyopanishad
10. Brihadaranykopanishad
11. Review of related research and Literature:

Following researches aided to identify topic for this study. Most of them are collected from Educational Research Survey Report published by N.C.E.R.T., New Delhi.
$\checkmark$ Abhyankar(1982), (1987) Bhattacharya(1981), Das(1986), Gupta(1985), Kaur(1983), Misra(1986), Rai(1986), Pathake(1982), Vaid(1971), Vyas(1986) have studied the educational thoughts/ contributions/ Philosophy of J. Krishnamurti, Tagore, Gopabandhu Das, Vivekananda, the Sikh gurus, Malaviya, Kalelkar and Annie Besant.
$\checkmark \quad$ The methods they have employed have been variously described as historical, library research, descriptive, analytical, and comparative and content analysis. They have used for their study literature available in the form of books, primary and secondary sources, personal interviews, visits to institutions, old records, commentaries, speeches and writings.
$\checkmark \quad$ Both Abhyankar and vyas have studied J. Krishnamurthy's educational philosophy. While Abhyankar claims to 'evolve educational theory' from Krishnamurthy's speeches and writings and to 'study the implications and impact of his thoughts on educational practices and life; Vyas aims at simply 'highlighting J. Krishnamurthy's thoughts on education from a larger perspective.' such studies lack a suitable frame of reference.
$\checkmark \quad$ Lalita(1967) has analyzed the similarities and differences in the educational philosophies of Gandhi and Dewey and evaluated them with respect to the present-day educational system. Pandey (1985) has compared educational philosophy propounded in the Geeta and Koran and highlighted the practicability of the ideas given in these scriptures in the present context. Sigh (1983) has compared the educational doctrines covering meaning and aims of education, curriculum, teacher, methods and so on of Plato and Aurobindo. Sinha (1984) has made a comparative study of Tagore and Whitehead's ideas on education, employing, the technique of content analysis. Vaid (1985) has compared the educational philosophies of Annie Besant and Gandhi.
$\checkmark \quad$ Abhayankar (1987) in his study of Vivekananda's educational thought has focused on the value education motif. he has employed the theoretical- empirical model for the analysis and interpretation of data The focus, however, seems to have been diffused in execution due to failure to exercise.

## 3. Statement of the problem:

## A Comparative Study of Philosophies of Prashnopnishad and Mundacopnishad with Educational Perspective. <br> 4. Functional definitions:

4.1 Philosophy: It contains 1. Ontology. 2. Epistemology 3. Axiology
4.2 Prashnopanishad: It is one of that ten Upanishads. Its period was 1379 B.C.
4.3 Mundakopanishad: It is one of that ten Upanishads. Its period was 1202 B.C.

## 5. Objectives:

5.1 To study of philosophy in prashnopanishad.
5.2 To study of philosophy in Mundakopanishad.
5.3 To study similarities \& differences between prashnopanishad \& Mundakopanishad.

## 6. Needs and Importance:

Needs and importance of particular subject of the study can be stated through following points:
$\checkmark$ A study of philosophy of Upanishads with educational scientific approach.
$\checkmark$ Understanding of philosophical journey in Upanishads.
$\checkmark$ Understanding of similarities and differences of philosophies of Upanishads. (Special reference to prashnopanishad \& Mundakopanishad.)
7. Scope \& Limitations:
7.1 The research consists of prashnopanishad \& Mundakopanishad.
7.2 The results are concerned with prashnopanishad \& Mundakopanishad.
7.3 Upanishads, other than prashnopanishad \& Mundakopanishad were not studied here.
8. Method of Research: Bibliography research, a type of Historical method of research was used here.
9. Primary Source: Original texts of prashnopanishad \& Mundakopanishad.
10. Secondary Source: Shankarbhashya of prashnopanishad \& Mundakopanishad.
11. Statements of Data analysis:
a) To study of philosophy in Prashnopanishad.

Any philosophical study goes further via-

1. Ontology
2. Epistemology
3. Axiology

## a.1. Ontology-

In this particular term or branch of the philosophy, the original principle is studied.

1. Prajapati created the Sun \& the Moon to create the whole World.
(Prashnopanishad-1-4)
2. Only one principle is the shelter for all. It is lightened, universal \& micro. (Prashnopanishad-1-5, 7, 8)
3. The nature is controlled by the Sky, the Wind, the Fire, the Water, the Earth, the Speech, the Mind, the Eyes and the Ear etc. (Prashnopanishad- 2-2)
4. Its nature is the life (Soul). This is the alone base for Universe. (Prashnopanishad- 2-6)
5. The life appears from the spirit. (Prashnopanishad-2-13)

## a.2. Epistemology -

In this particular branch of the philosophy, nature, sources, methods of Knowledge is studied.
The name of Upanishad, prashnopanishad indicates dialectic approach. In prashnopanishad, following questions were asked by learners to their teacher with the objective of receiving knowledge.

1. From where these subjects are emerged? (Prashnopanishad- 1-3)
2. Who does maintain features of the subjects? Who does appear organs of senses at their own functions? Who is senior of them? (Prashnopanishad- 2-1)
3. Which is the source of the life? How does it come in body? How does it live apart from the soul? (Prashnopanishad- 3-1)
4. In this body, which do organs sleep? Which do organs awake? Which do organs dream? Which organ does become happy? (Prashnopanishad- 4-1)
5. Which Loka is received by person who meditates Omkar? (Prashnopanishad-5-1)
6. Where does the person with sixteen arts live? (Prashnopanishad- 6-1)


As given above, six students (named Kabandhi, Bhargav, Kausalya, Gargya, Satyakam, and Sukesh) asked six questions to Pippalad muni. \{lt may be remembered that Upanishad means receiving knowledge with Seating near to the teacher.\}

## a. 3. Axiology-

In this branch of the philosophy, Values are discussed.

1. A person should Perform Celibacy \& Penance may with faith. (Prashnopanishad- 1-1)
2. A person should have Celibacy, Penance, knowledge \& Faith. (Prashnopanishad- 1-10)
3. A person should treat with truth. (Prashnopanishad- 1-15, 16)
4. A person should have Spiritual knowledge. (Prashnopanishad-3-11)
5. A person should know indestructible Super-soul. (Prashnopanishad- 4-10, 11)
6. A person should meditate Omkar-Brahma. (Prashnopanishad-5-7)

As above, it is seen that prashnopanishad gives importance to the value like Celibacy, Penance, knowledge, Faith \& Meditation.

## b) To study of philosophy in Mundakopanishad.

## b.1. Ontology-

1. Any one cannot see, grasp Brahmtatva. It is rootless, featureless, limbless, universal, most micro, regular, destruction-less \& reson for creation of every animal. (Mundakopanishad-mundak1-khand 1-5)
2. The world is appeared from destruction-less Brahm. (Mundakopanishadmundak 1-khand 1-7)
3. From Brahma Annam; From annam life; From life mind; From mind the sky etc. (Panch Mahabhutas); From Panch Mahabhutas the Soil etc. are appeared. (Mundakopanishad-mundak2-khand 1-8)
4. Brahmtatva is most micro. (Mundakopanishad-mundak3-khand 1-8)
b. 2. Epistemology -
5. Tradition:

Tradition is the best mean of knowledge-transition. The tradition of education of Brahmtatva is Brahmdeo->Atharva-> Angir-> Satyavaha-> Angiras-> Shounaka.
2. Question-Answer-Method:

A student named Shounaka asked to his teacher, named Angiras muni; "After Knowing what, will I become omniscient?" To answer this question, Angiras muni guide about Brahmtatva.

## 3. Classification of knowledge:

In Mundakopanishad, we get Classification of knowledge in twofold. First is Para Vidya that represents Education of Brahmtatva. Second is Apara Vidya which represents Vedic Samhitas \& their Shastras like Grammar etc.
(Mundakopanishad-khand 1-3, 4)

## b. 3. Axiology-

1. The effect of the Work is destroyable. So every one should have asceticism. (Mundakopanishad-khand2-12)
2. The student should have concentrated mind. (Mundakopanishad- khand2-13) 3. Every one should become a man of knowledge of Brahmtatva. (Mundakopanishad- khand1-3)
3. A person should meditate Omkar-Brahma.
(Mundakopanishad- khand1-6)
Mundakopanishad fascinates the values of asceticism, concentrated mind, knowledge, meditation etc.
C) To study similarities \& differences between Prashnopanishad \& Mundakopanishad
C. 1 Similarities between Prashnopanishad \& Mundakopanishad:

| Contains | Prashnopanishad | Mundakopanishad |
| :--- | :--- | :--- |
| 1. Ontology | The principle is micro. <br> 3. The nature is <br> controlled by the Sky, <br> the Wind, the Fire, the <br> Water, the Earth, the <br> Speech, the Mind, the <br> Eyes and the Ear etc. | Brahm is most and most <br> micro. <br> From <br> Mahabhutas the earth <br> etc. are appeared. |
| 2. Epistemology | Application of Question <br> method. | Application of Question <br> method. |
| 3. Axiology | Knowledge of the self( <br> the soul) <br> Meditation of Omkar- <br> Brahma | Knowledge of Brahma. <br> Meditation of Omkar- <br> Brahma |

## C. 2 Differences between Prashnopanishad \& Mundakopanishad:

| Contains | Prashnopanishad | Mundakopanishad |
| :--- | :--- | :--- |
| 1. Ontology | 1) Prajapati had created <br> the Sun \& the Moon to <br> create the whole world. <br> The Life appears from <br> the Spirit. | 1) From Brahma Annam; <br> From annam life; From <br> life mind; From <br> mind the sky etc.( the <br> Panch Mahabhutas) ; <br> From Panch Mahabhutas <br> the Soil etc. are <br> appeared |
| 2. Epistemology | Maximum Use of <br> Question method. | Maximum Use of <br> Explanation method. |
| 3. Axiology | ------ |  |

## 12. Results:

12.1 In some of specific things; like Ontology, Epistemology, Axiology, there are similarities between philosophies of Prashnopanishad \& Mundakopanishad
12.2 In some of specific things; like Ontology, Epistemology there is differences between philosophies of Prashnopanishad \& Mundakopanishad.
12.3 There is no significant difference between Axiology of Prashnopanishad \& Mundakopanishad.
13. Recommendations:
13.1 Recommendations for teachers and researchers:
13.1.1 Critical study of Upanishadian philosophy may be taken place.
13.1.2 Application of Upanishadian Ontology, Epistemology, and Axiology may be taken place in Education in large amount.

### 13.2. Recommendations for Curriculum Board:

13.2.1. To make ideal student, Upanishads may be included in School level syllabus.
13.2.2. To develop student's thinking process, Upanishads may be included in higher education syllabus also.
14. Topics for further research:
14.1 Teaching-Methods in Upanishads- A critical study.
14.2 Skill of Questioning in Upanishads- A critical study.
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## "Yoga the Natural Art of Living"

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#### Abstract

The purpose of the paper is to highlight the developing way of yoga in day to day life. By adopting yogic way of life human performance can be developed, by physical, mental, social and spiritual. The proper yogic kriya made the body strong and high in the work performance. This paper highlighted the merits of Yogasana in daily life and use of proper food need for yoga.

\section*{Introduction}

The life style of today's man has been made very uncertain and hectic. Their work surrounding and the competition to reach first in all aspect of life made their way towards stress, pain, and most of the conditions whish turn out of control. Apart from mental stress, physical inactivity contributes to the suffering process. Yoga is a social and cultural medicine. It provides a stable and sustaining body system to perform well in any sort of physical and mental activities. Many daily activities built muscles and body tissues strong. Even the increased range of movement provides greater movement of body parts. Daily use of asanas regains the body and recovers from illness.


## Yoga Exercises

The body stretching exercise should be done on an empty stomach, so allow a few hour after the meal. Many asan made exercises are used today for getting optimum fitness, to correct body posture, to remain fit and balanced, to gain stamina and endurance, to heel from sickness etc. therefore the best and systematic way of body starching is through the way of yoga posture.

## Mountain Pose

This is the very basic of the classic poses, the basis of all the other poses, and our posture in everyday life. It seems to be extremely simple, yet very few of our society people know how to stand.

## Balancing poses

All the postures depend upon the body balance; hence several postures develop balance particularly, since they involve balancing the body's weight on one leg. Spared leg forward bend and half moon are the best balancing poses prescribed in yoga.

## Standing poses

These are all related for the leg and hip and spine. Standing poses provide the strength to legs and make body stable while performing the yogasana. Some examples of standing pose are,
Warrior pose
Triangle pose
Reverse Triangle pose

## Side stretch <br> Standing forward bend <br> Inverted poses

One of the most important yoga postures, It has many benefit, due to thispose the body and the chin lock with stimulates gland in the neck, especially the thyroid gland whish is very helpful to control metabolic process in body. Shoulder stand is the example of Inverted poses.Energy is the capacities do work, it is needed in every aspects of life i.e. for sitting, standing, sleeping, reading, Dancing or any other major or minor, things requires energy. This energy is also needed in sports activity, can be improved by Yogic asana and kriyas. The word Yoga comes from the Sanskrit word 'Yuj' which means 'to unite or to bind' It is about the union of a person's own consciousness and the universal consciousness. That's why natural life through the yoga is demand of today.

## Yogasana help us to:-

Provide a holistic approach towards our welfare.
Help to improve body strength and flexibility.
Help in removal of toxins in the body \& aid in relaxations.
Help to reduce the weigt.
Help to overcome stress
Help in hearing and nourishing the body.
Also calms our mind
Gives clarity to our thought.
It doesn't need any special place, or equipment or clothes
Yoga can enhance concentration
Also release the stress from muscles.

## Food and Diet

Yoga practitioner should prefer the satvik (simple) kind of food made of pure energy yielding constituents and fully vegetarian which easily digestible, which helps to develop the inner strength and urges purity in mind, harmony in body, cool temperament and mind. The diet should not be heavy or expensive. It should contain different unites of simple and natural food in such quantities needed for energy, amino acids, vitamins, minerals, fats carbohydrates and other nutrients are meet for maintaining the physical and mental health. It has all along insisted on a nourishing but non stimulant, vegetarian diet.

We cannot all have own farms to raise our own crops, food but, by observing some simple rules:

1. Use seasonable fruits and vegetables and only under the consumable quantity. 2. Whenever possible do not discard peelings. On the other hand it is essential to wash fruit and vegetables carefully, not only because they have been handled but because they may have a residue of some poisonous spray.
2. Both food and vegetables are best eaten raw, or mild soft cooked
3. In flavoring, learn to substitute herbs, garlic, lemon juice and onion for heavy
quality of salt, pepper and spices.
4. Finally, learn to enjoy foods prepared simply, without rich sauces which only mask the natural taste and add unnecessary calories.

## Conclusion

In our modern world a long life is what most men and women are going to have, therefore, more than at any previous time in history, how to remain healthy, active and contained over the long decades in the burning problem facing countless millions. No one welcomes ripe old age if it is to be a burden. We do not want it if it going to mean retirement and that enforced idealness which cripples the soul long before it eventually murders the body. By devoting a mere 20 minutes or a half hour a day to the pursuit of Yoga you can, as you know by now, avoid such misery. We can enrich our life by developing our inner resources in depth, as it was never before possible.

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## कवि दिनकर के मिथक काव्य की प्रासंगिकता

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भारतीय संस्कृति के अध्येता दिनकर ने प्राचीन कथाओं के माध्यम से जो काव्य सृजन किया हैं। वह उनका मौलिक सृजन है। इसमें मिथकीय धरातल को प्रस्तुत कर आदिम प्रवृत्ति की तुलना वर्तमान परिप्रेक्ष्य के साथ करना चाहते है। कवि के मस्तिष्क में ग्राह्य नवीनता को वह मिथकीय संदर्भ के साथ तादात्म कर लेता है। इन कथ्यों में कई आयाम होते है जो कवि मन के पटलपर अंतर्विरोध दर्शाते है । यह अंतर्विरोध राष्ट्रीय, सामाजिक क्षेत्र की निजी अनुभूति के कारण है। जिसे विशिष्ट विचारधारा या चिन्तन प्रणाली में ढालकर विकसित किया जाता है। अत: कवि मिथकीय स्थानो की नई व्याख्याओं का अन्वयन करता है।

दिनकर के कुरुक्षेत, उर्वशी, रश्मिरथी ऐसे ही मिथकीय काव्य है। जिसकी प्राचीनता में नित्य नविन संचेतना अंतर्निहित है। इस दृष्टि से कवि दिनकर के काव्य उर्वशी, कुरुक्षेत्र, रशिमरथी इन खण्ड काव्य की प्रासंगिकता पर यहाँ प्रकाश डालने का प्रयास किया जा रहा है।

कवि 'दिनकर' का उर्वशी यह एक प्रबंध काव्य है, जिसमें मानव के मन में अनादिवासना, सुप्त काम का चित्रण ' उर्वशी‘ के रुप में साकार हुआ है। ‘उर्वशी' में पुरुरवा सनातन नर का तो उर्वशी सनातन नारी का प्रतीक है। रुप, रस, गन्ध, स्पर्श और शब्द से मिलनेवाले उद्वेलित मनुष्य की आध्यात्मिक उन्नति में यही सुख बाधा पहुँचाते है। एक ओर दैहिक आकर्षण तो दूसरी ओर अध्यात्मिक बल स्वर्ग की कल्पना मनुष्य को खींचती है। उसी कारण पुररतवा के माध्यम से अभिव्यंजित हुई है। यही वर्तमान मानव की स्थिति है। पुरुरा में द्वन्द्व में रहनेवाले मानव के दर्शन होते है। आज का बुद्धिजीवी मानव भी निरन्तर द्वन्द्व में ही रहता है। इस दृष्टि से उर्वशी के पुरुरा का कथ्य प्रासंगिक है।

कवि दिनकर ने ‘उर्वशी‘ को सनातन नारी का प्रतीक कहा है, वह प्रत्येक नर के मनःस्थल में निवास करनेवाली नारी कल्पना का मूर्त रुप है -
"जन-जन के मन की मधुर वही, प्रत्येक हृदय की उजियाली
नारी की मैं कल्पना चरम नर के मन में बसनेवाली"
इस प्रकार उर्वशी में तीन प्रकार की नारीयों की चर्चा हुई है। सामाजिक रीति, प्रणय के माध्यम से और तपस्या से प्राप्त होनेवाली महा नारी के विविध रुप और उनसे प्राप्त होनेवाला प्रेम प्रतीक रुप में व्यक्त हुआ है, औशीनरी, उर्वशी, परणीता उसके उदाहरण है। नारी की भूमिकाएँ न केवल प्रणयिनी तक सीमित है बल्कि प्रत्येक नारी माँ है यह शाश्वत चिन्तन ‘उर्वशी' के कथ्य को प्रासंगिक बना देता है। क्योंकि वर्तमान आधुनिक वातावरण में नारी की भूमिका विश्वस्तर पर एक जैसी है। जो प्राकृतिक संस्कारों से नियत है। 'उर्वशी' इस चरित्र को कवि ने नारी के मर्म का उद्घाटन करने हेतु लिया है। उसका चरित्र नारी जीवन की विडम्बना की कहानी है। औशीनरी जीवनभर कुछ न पाकर भी आयु के रुप में पुत्र को पाती है। पुरुरवा को प्रिया भी मिलती है, पत्नी भी मिलती है, पुत्र भी मिलता है, राग भी मिलता है और अन्त में विराग की भी प्राप्ति हो जाति है किन्तु उर्वशी से पुरुरवा भी छूट जाता है और पुत्र को दुलारने का यह अभागिनी अवसर भी खो

देता है। सब कुछ गॅवा कर देवों के उसी अभिशप्त लोक में चली जाती है, जहॉ से आई थी। अत: उर्वशी का अह्लाद परिपूर्ण नहीं, करुणा से ओत-प्राते भी है। नारी का जीवन सेवा समर्पण और आत्मदान के लिये है। उर्वशी में मनोरमा नारी पत्ती-प्रिया इन रुपो की सन्धि का निर्वहन हुआ है।
‘कुरुक्षेत्र‘ दिनकर जी का युध्द काव्य है, इसमें युग चित्रण स्वाभाविक ढंग से किया गया है। कवि दिनकर ने एक प्राचीन कथावस्तु के माध्यम से आज के युध्द की समस्या सुलझाने का प्रयास किया है। कुरुक्षेत्र में दिनकर जी ने युध्द संम्बधी समस्या उठाई है, क्योंकि अनादिकाल से इस समस्या पर शांतिपूर्ण समाधान के लिये अनेक प्रयास हुए। विश्वभर में युध्द विभिषिकाओं को रोकने और मानव जीवन में शांति स्थापित करने के लिए वर्तमान समय में संयुक्त राष्ट्रसंघठन संघर्षरत है, फिर भी कुछ देशों के बीच युध्द लगातार होते रहते हैं। महत्वाकांक्षी राष्ट्र महासत्ता बनने और विश्वभर के निर्बल देशों पर आर्थिक एवं राजकीय साम्राज्य स्थापित करने की इच्छा से मानवता के संकेत को भूला देते है। जिन राष्ट्रों पर शांति स्थापित करने की जिम्मेदारी है वहीं उसकी मर्यादाओं को तोड़ते दिखाई देते है। तब वर्तमानकाल के मानव के सामने यही युध्द की समस्या उपस्थित है। वही कुरक्षेत्र में युध्दिष्ठिर के सम्पुख उपस्थित दिखाई गई है। मनुष्य युध्द के लिये प्रवृत्त होने तथा विरक्ति के भाव को दिनकर ने कुरुक्षेत्र के सर्ग ६७ में व्यक्त किया है। वे कहते है युध्द के विरुध्द सोचने पर भी युध्द में प्रवृत्त होना है और युध्द की भीषणता देखने पर उसके प्रति विरक्त होता है और पुनः प्रवृत्त होता है। यह दूषित चक्र निरन्तर चलता रहता है।

मनुष्यों के हदय में प्रतिशोध की भावना तब तक बनी रहेगी जब तक युध्द होते रहेंगे और मनुष्य स्वार्थ लिप्त रहेगा। इन युध्दों का समर्थन 'कुरक्षेत्र' में भीष्म पितामह के माध्यम से व्यक्त हुई है। दिनकर के ये विचार मनुष्य की मनोवैज्ञानिक धारणा पर आधारित है। जो प्रासंगिक बन पड़े है।

युगो-युगों से समर के आधार की खोज मे बड़े-बड़े यौध्दा लगे हुए थे। महाभारत का कुरुक्षेत्र के महायुध्द की पृष्ठभूमि में कही शूरता के प्रति ईर्षा, जलन तो कहों किसी की कूरता के प्रतिशोध तो की एक दूसरे का उत्कर्ष के प्रति जलन कही कोई बैर का क्षमन को तत्पर तो कहों प्रण की पूर्तता के लिये वध की अभिलाषा एवं व्यग्रता। कहों स्वार्थ पूर्ति हेतु गुमराह करने की साजिश का मायाजाल फैलाने की भावना लिए मनुष्य प्राणी जी रहा है। राजाओं में परस्पर के कलह और बैर से प्राचीन भारत वर्ष दो दलों में विभाजित हुआ था। दिनकर जी ने ‘कुुक्षेत्र‘ में व्यक्त कलह को रखते हुए विश्व कलह की भावना पर मनुष्य मात्र की एकता के लिए समर्पित शांती यह उपाय सुझाया है। कवि सदैव के लिए युध्द समाप्त हो इसलिए उसके कारणों के दिग्दर्शित करना चाहता है। यही भावना करक्षेत्र के कथ्य की प्रासंगिकता है। क्योंकि वर्तमान में वैज्ञानिक खोजों से अण्विक युध्द अधिक संहारक बन सकते हैं और उसमे सम्पूर्ण मानवजाति मिट जाने की संभावना है। जब मनुष्य ही नहीं रहेगा तब मनुष्य के द्वारा मनुष्य पर शासन करने की प्रवृत्ति जो अहं का ही परिणाम है, वह कैसे संभव होगी। यह शाश्वत प्रश्न दिनकर उठाते हैं। वर्तमान जीवन में ये विचार अधिक प्रासंगिक है।

कुरक्षेत्र के द्वितीय सर्ग में युधिष्ठिर की द्वन्द्वपूर्ण मनोदशा का तथा उनके मुख से मानव की मन:स्थिति का वर्णन हुआ है। आज का मानव भी कैसे पुरानी राह पर चल रहा है, अब कैसे उसका द्वन्द्व समाप्त होगा। अर्थात दिनकर द्वंद्व में

रहना मानव मन-स्वभाव का कर्म मानते है। परिणाम स्वरुप आज का मानव युध्द समस्या को लकर द्वंद्व में जी रहा है। युधिष्ठिर के माध्यम से वर्तमान युग की युध्द समस्या पर विचार किया गया है। अत: युधिष्ठिर अहिंसा के प्रतीक रुप है। जो युध्द को किसी भी तरह से समर्थन नहीं करते। यही काव्य की मूल प्रासंगिकता है।

महाभारत का युग और आधुनिक युग के संसाधनों में की वैज्ञानिक प्रगति को लेकर अंतर स्पष्ट है पर तब की मनुष्य के भीतर पनपनेवाली अहंकार, कुत्सित, द्वेष भावनाएँ, आज भी ये प्रवृत्तियाँ मनुष्य में विद्यमान है। फलस्वरुप उस समय युध्द का कारण बनी बातें आज भी वही संभावनाएँ प्रतीत हो रही है। यहां भी उनके विचार प्रासंगिक है। उन कुत्सित भावनाओ की समाप्ति ही युध्द की संभावना को विराम दे सकती है।

युध्द को निंदनीय कर्म माननेवाला मनुष्य युध्द के लिए तत्पर होता है, उसके पश्चात उसपर उसे ग्लानि होती है और वह पश्चाताप की अग्नि में जलता रहता है। फिर भी वह युध्द को अनावश्यक मानने को तैयार नही है। कुरक्षेत्र में युधिष्ठिर का चरित्र इसी दौर से गुजरता है जो आधुनिक काल के मानव में भी यही धारणा दिखाई देती है। द्वितीय विश्व युध्द के भयंकर विनाश पर मानव ने घोर पश्चाताप किया लेकिन वह पुन:तीसरे विश्व युध्द की तैयारी में है। यही दिनकर के कुरुक्षेत्र की प्रासंगिकता है।

कवि दिनकर ने युध्द की समस्या को शोषण के परिप्रेक्ष्य में देखा है। अतः मानव समाज का सुख शोषण के अंत में और शान्ति प्राप्त होने में व्यक्त करते है। इस विषय में भीष्म पितामह ने कहा कि जब तक मनुष्य को समान सुख साधन प्राप्त नही होंगे तब तक संसार की अशांति नष्ट नहीं हो सकती। यही बात आज के युग में पूर्णतः व्याप्त है। अतः कुरक्षेत्र में साम्यवादी विचार दिनकर जी व्यक्त करते है।

कवि रामधारी सिंह 'दिनकर' जी की रश्मिरथी एक सफल काव्य कृति मानी जाते है। इसमे कवि ने कर्ण के जीवन के विभिन्न उज्वल पहलुओं को प्रकाशित किया हैं।

दिनकर जी की रशिमररथी यह रचना कर्ण प्रसंग पर आधारित है। कर्ण के उदात्त चरित्र का उद्घाटन करते हुए मानव के कतिपय गुण, दान, दया, धर्म, ओज, वीरत्व, कर्म में विश्वास, मैत्री आदि का आधार कर्ण को दर्शाते है,, परंतु वर्तमान का मनुष्य उक्त गुणों के अभाव मे स्वंय दु:खी, त्रस्त और भयभीत है। आदर्श एवं उच्च गुण संपन्न जीवन की कल्पना साकार होने के लिए व्यक्ति मे पुरुषार्थ की अपेक्षा की गई है। जो रश्मिरथी के कर्ण में यह आलोक विद्यमान है। जिसकी प्रेरणा से आज का मानव बल और प्रतिष्ठा प्राप्त कर सकता है। इस दृष्टि से कर्ण का चरित्र प्रासंगिक है।

भारतीय समाज व्यवस्था संस्तरण की आधार शिला पर खड़ी है। आधुनिक परिवेश में अनेकों परिवर्तन के फलस्वरुप उसमें सेंध लग चुकी है। परंतु पूर्व परम्परागत धारणाओं के चपेटो में यहाँ एक मानव समूह को उपेक्षितो का जीवन जीना पड़ा है। उनके व्यक्तिगत गुणों के आधारपर उन्हें सम्मान नहीं मिला। सामाजिक दृष्टि से आगे व्यष्टि कमजोर पड़ गई। परंतु कर्ण जैसे उपेक्षित पात्र ने नियति से, समाज से, उच्चवर्ग से संघर्ष कर विजय प्राप्त की। क्योंकि वह झूठ, छद्म को त्यागकर सत्य और धर्म के मार्ग पर चलनेवाला व्यक्ति था। कवि दिनकर जी इसी आदर्श की स्थापना करना चाहते है, इसलिए रश्मिरथी मे कर्ण के यशोगान का स्तवन करते है। इस दृष्टि से कर्ण का चरित्र आगत मनुष्य के

लिए प्रासंगिक बन गया है।
कवि दिनकर जी आधुनिक परिवेश में झूठें जातिगत अहं की निरर्थकता बतलाते हुओ मिथकीय कर्ण चरित्र के उज्जवल दीप्त कर्म किरणों के प्रकाश में आलोकित भूमि पर उस उपेक्षित मानव की प्रतिष्ठा कायम होने का स्पष्ट संकेत करते हैं। और उसे भविष्य में सामाजिक प्रतिष्ठा प्राप्त होने की बात करते है। इस दृष्टि से कर्ण चरित्र में व्याप्त आदर्श मानवीय गुणों की प्रासंगिकता सिध्द करते है।

रश्मिरथी का कर्ण राजा रुप में भी सामान्य व्यक्ति था और युध्द में विजय प्राप्त करने पर भी दीन-दुःखीयारो की सेवा करने की बात करता है। अर्थात वह दलित-पद्द्दलित उपेक्षित, वंचित, प्रताडित जातियों का प्रतिनिधी - बन जाता है। इसलिए कृष्ण को कहना पड़ता है कि कर्ण मानवता क नेता रुप में प्रतिष्ठा पा चुका है। रशिमरथी में कर्ण चरित्र उन जाति-विहीन, समाज निंदित, तुच्छ और हेय माने गए लोगों का आदर्श है। जिन्हे अपमानित होना पड़ता है, अपनी महत्वाकांक्षाओं का गला घोट देना पड़ता है। जिनको कोई साथ देने को तैयार नहीं, जी कर भी तिल-तिल कर मरना होता है। ऐसे उपेक्षित पात्र के रुप में कर्ण हमारे सामने प्रकट होता है। जो आधुनिक परिवेश में समाज की धारणाओं को देखते हुए प्रासंगिक चरित्र सिध्द होता है।

कवि दिनकर ने रशिमरथी मे कर्ण चरित्र की कथा के साथ अन्य समस्याएँ उठाई है। जो मिथकीय संदर्भ होते हुओ भी प्रासंगिक है। रशिमरथी के कर्ण से इंद्र का छल-कपट से कवच-कुण्डल मांग लेना है क्योंकि उसका स्वार्थ है। माता कुंती भी अपने बेटे अर्जुन के लिए कर्ण से याचना करती है। साथ ही गुरु द्रोण भी अपने प्रिय शिष्य अर्जुन के ऊपर कर्ण के व्यक्तित्व को उभरने नहीं देता क्योंकि उसे वह उपेक्षित या निम्न समाज का हिस्सा मानते हैं। तात्पर्य मानव हर जगह अपना स्वार्थ देखता है। कवि इन मिथकीय पात्रों की स्वार्थपरता में आधुनिक मानव की मनोदृष्टि को ढूंढता ही नही बल्कि उनसे कहीं अधिक स्वार्थी प्रवृत्ति बढ़ने की ओर स्पष्ट संकेत करते हैं। इस दृष्टि से ये पात्र प्रासंगिक है। मिथकीय कथा वर्तमान जीवन के सभी संदर्भ को व्याख्यायित करने मे सफल सिध्द हुई है।

## संदर्भ

१. उर्वशी - रामधारी सिंह दिनकर
२. कुक्ष्षेत्र - रामधारी सिंह दिनकर
३. रशिमरथी - रामधारी सिंह दिनकर
૪. कवि दिनकर के साहित्य मे दलित पीड़ित तथा शोषितों का चित्रण और उनके उत्थान का स्वर डॉ. डाहयाभाई रोहित

## देहातों के टूटते मूल्यों की कहानी, देहातियों के जबान से : सूखता हुआ तालाब

प्रा. सूर्यवंशी जयराम : संत गाडगे महाराज महाविद्यालय, लोहा, नांदेड.

हिन्दी उपन्यास साहित्य के इतिहा में प्रेमचंद युग के उपरान्त उपन्यास विधा भिन्न - भिन्न प्रवाहों में बहने लगी एक ओर अज्ञेय, इलाचंद जोशी तथा जैनेन्द्र ने मनोविश्लेषणवादी उपन्यास लिखे तो यशपाल, नागार्जून आदि ने साम्यवादी उपन्यास लिखे ऐतिहासिक उपन्यास लिखनेवालो में हजारिप्रसाद द्विवेदी, वृंदावनलाल वर्मा का नाम चर्चित रहा। इन सबके अलावा फणिश्वरनाथ रेणू ने मैला आँचल के माध्यम से आँचलिक उपन्यासों की शुरुवात की और देहाती जनजीवन को, देहाती संस्कृती को, देहाती राजनीति को देहाती भाषा में पाठकों के सम्मुख रख दिया।

फणिथ्वरनाथ रेणुजी से प्रेरणा पाकर कई सारे रचनाकारों ने आँचलिक उपन्यास लिखने की कोशिश की जिनमें राजेंद्र अवस्थी का ‘जंगल के फूल', हिमांशु जोशी का ‘नदी फिर बह चली' राही मासुम रजा का ‘आँधा गाँव‘, शिवप्रसाद सिंह का ‘ अलग-अलग वैतरणी‘, श्रीलाल शुक्ल का ‘राग दरबारी‘ आदि के साथ साथ सन १ ९७ २ में प्रकाशित ‘सूखता हुआ तालाब’ भी विशेष चर्चित आँचलिक उपन्यास है।

आँचलिक उपन्यासों में किसी जनपद, प्रदेश या आँचल के लोगो की बोली में उनके मनोभाव, सुखदु:ख, त्योहार उत्सव, रीति-रिवाज, धार्मिक कर्मकाण्ड आदि का ब्योरा विस्तृत दिया जाता है। आँचलिक उपन्यासों के संदर्भ में डॉ. रामदरश मिश्र कहते है, "आँचलिक उपन्यास अंचल के समग्र जीवन का उपन्यास है। जैसे नयी कविता ने तीव्रता से, सच्चाई से भोगे हुए अनुभव की मिट्टी मे तपे हुए पलों को व्यंजित करने में ही कविता की सुन्दरता देखी, वैसे ही उपन्यास के क्षेत्र में आँचलिक उपन्यासों ने अनुभवहीन, सामान्य या विराट के पीछे न दौडकर अनुभव के सीमा में आनेवाले अंचल विशेष को उपन्यास का क्षेत्र बनाया इससे स्पष्ट है कि आँचलिक उपन्यास लेखक के परिचित किसी आँचल विशेष की कहानी वहाँ के लोगों की बोली में होती है।

उपन्यासकार रामदरश मिश्र के उपन्यास पर प्रकाश डाला जाय तो यह स्पष्ट होता है कि लेखक ने पानी इस तत्व को लेकर लगभग सभी उपन्यास लिखे है जैसे, जल टटता हुआ, पानी के प्राचीर, सूखता हुआ तालाब आदि।

प्रस्तुत आलेख के केंद्र में सन १९७२ में प्रकाशित मिश्रजी का चर्चित उपन्यास सूखता हुआ तालाब है जिसके माध्यम से लेखक ने १९६० के बाद के भारतीय देहातों का वर्णन यथास्थिति किया है। उपन्यास के केंद्र में शिकारपुर नामक गाँव है, शिकारपुर इस गाँव को भारतीय देहातों का प्रतिनिधी गाँव मानकर मिश्रजी ने देहाती जनजीवन, देहाती लोगों का संकुचित दृष्टिकोन, देहाती लोगों की अंधविश्वासु प्रवृत्ती, देहात की छुआछूत समस्या, देहात की भ्रष्ट राजनीति, देहात में घटित हो रहे अवैध यौन संबंध उनके परिणाम आदि का विस्तृत ब्यौरा उपन्यास ‘सूखता हुआ तालाब‘ में दिया है।

उपन्यास के सभी पात्रों को उनकी प्रवृत्ती के आधार पर दो भागों में बाँटा जा सकता है पहला वर्ग आदर्श तथा व्यापक दृष्टिकोन रखनेवाले पात्रों का है जिसमें देवप्रकाश, जैराम, रविन्द्र तथा डॉ. सरोज आते है तो दूसरे वर्ग में दुष्ट तथा संकुचित मनोवृत्ति के वासनांध पात्र आते है जो देहात के हालात को और भी बिगाड रहे है उनमें

धर्मेन्द्र, शिवलाल, शामदेव, मोतीलाल, दयाल, बनारसी, रामलाल आदि है। उपरयुक्त पात्रों के माध्यम से लेखक रामदरश मिश्रजी ने भारतीय देहातो की निम्न समस्याओं को पाठकों के सम्मूख रखा है।

## १) देहाती संकुचित दृष्टिकोण :

भारत की जनसंख्या में से लगभग $७ ० \%$ लोग देहातो में रहते है इसलिए देहाती लोगों की सोच पर ही देश का विकास हो सकता है लेकिन वास्तविकता यह दिखाई देती है कि भारतीय देहाती लोगों का दृष्टिकोण काफी संकुचित है, उनकी सोच बहुत छोटी है। उपन्यास में जगह- जगह पर देहाती लोगों की संकुचित दृष्टि का पता चलता है। उपन्यास में देवप्रकाश के लडकी के साथ देवव्रतजी अपने पुत्र की शादी पक्की करते है तभी धर्मेद्र स्कूल मास्टर होकर भी शादी तोडना चाहता है। देवव्रत जी कहता है, "आपको धोखा दिया गया है, आपको पता नही देवप्रकाश का भाई अवतार कुछ दिन पहले एक पासिन के साथ आशनाई करते पकडा गया था और पीटा गया था। सारे पट्टीदारों ने उसके यहाँ से सम्बन्ध तोड लिया है" इससे स्पष्ट है की देहाती लोग कभी किसी का अच्छा नही होने देंगे और खुद भी अच्छा करने की नही सोचेगें, दूसरो के कामो को बिगाडने में ही इन्हे आनंद होता है यह देश की बहुत बडी विसंगति है जिसको मिश्रजी ने उपन्यास में विस्तृत बताया है।

## २) छुआछूत की समस्या :

भारत को आजादी मिलने के बाद भी यहाँ की वर्णव्यवस्था नष्ट नही हुई है। सन १९६० के बाद भी देहात में छुआछूत की समस्या काफी उग्ररुप धारण कर चुकी है। आज भी दलितों को सवर्ण जानवर समझते है, उनके साथ जनावरों से भी बद्तर व्यवहार करते है। उपन्यास में धुरपतिया का लडका मुरतिया रामलाल के साथ पानी भरता है तब रामलाल मुरतिया को अछूत कहकर झापड मारता है। इतना होने पर भी गाँव के सभ्य समझे जाने वाले मोतीलाल मुरतिया को ही कोसते हुए कहते है, "अरे जाने दीजिए, थप्पड खा गया तो कौन सा साला मर गया। अब चमार सियार के लिए पट्टीदार से लड़ाई करने जाऊँ। जब गाँव के लोग छूआछूत मानते है तो थोडा ठहरकर ही पानी भरता मुरतिया, उसे इतनी जन्दी क्या ?" इससे जाहिर है कि देहाती लोगों में अभी भी छुआछूत की भावना ठूस-ठूसकर भरी हुई है इसके अलावा भी मोतीलाल के घर पर भोज के कार्यक्रम में प्रसाद को अछूतों के छूने के कारण प्रसाद को फेंक दिया गया। यह सब देहाती लोगों की छुआछूत का प्रतीक है।

## ३) देहातो में व्याप्त अवैध यौन संबंध :

मिश्रजी ने प्रस्तुत उपन्यास के शीर्षक में ही तालाब सूखने की बात की है जिसका अर्थ है नैतिकता और मानवीय मूल्यों का तालाब सूख रहा है जिस कारण अनैतिकता, अनाचार तथा व्यभिचार की बदबू समाज में फैल रही है।

शिकारपुर गाँव की स्थिति देखकर एक बात स्पष्ट होती है कि यहाँ कई सारे लोग अवैध यौन संबंध रख रहे है। यह एक देहात की बहुत बडी समस्या है जिस कारण झगडे, संघर्ष भी होते है। इन लोगों के अवैध यौन संबंधों के कारण भी विचित्र है देवप्रकाश का भाई अवतार अपनी पत्नी के देहांत के बाद अपनी प्राकृतिक आवश्यकताओं को पूर्ण करने के लिए पासिन के साथ संबंध रखता है इस कारण डॉ. सरोज उसका समर्थन करते हुए कहता है, "सुना है वे पत्नी के मरने के बात फिर शादी करना चाहते थे, अपने रोक दिया। यदि अपनी सहज वासना-तृप्ति के लिए उन्होंने किसी पासिन से संबंध रखा तो इसमें कौनसा पहाड़ टूटा।" अवतार के अलावा जो कुछ अवैध संबंध है वे सब अपनी भौतिक वासनाओं की पूर्ति के लिए घर में पत्नी होकर भी अवैध संबंध रख रहे है। धर्मेद्र की बहन लीला का रमदौना अहिर के साथ, धर्मेन्द्र का शीवलाल की बहन कलावती के साथ संबंध यह सब इस बात के उदाहरण है।

इसके अलावा भी एक बात स्पष्ट होती है वह है कुछ देहाती प्रतिष्ठित लोग दलित जाति की स्री के साथ

अवैध संबंध रखकर दलित स्त्रियों का शारीरिक शोषण कर रहे है उपन्यास की पात्र चेनइया नामक चमारिन के साथ गाँव के सभी प्रतिष्ठितो के अवैध संबंध है जिसमे शीवलाल, दयाल, धर्मेन्द्र आदि है। यह लोग गरीब दलितो की मजबूरी, असहायता का फायदा उठाकर उनका शोषण करते है इसका भीषण परिणाम यह हो रहा है कि इनकी वासनांध प्रवृत्ती की शिकार औरतों को अन्त में काई भी सहारा नही दे रहा है उपन्यास के अन्त में चेनइया अपने दु:ख को व्यक्त करते हुए कहती है, "बाबा, गाँव सचमुच रहने लायक नही है, मै गाँव से भाग रही हूँ। गाँव ने मुझे बेस्सा बनाकर छोड दिया अब जान लेने पर उतारु है।" इससे स्पष्ट है कि उपन्यास सूखता हुआ तालाब में लेखक ने देहाती यौन संबंधों की बीभत्सता पर खुलकर चर्चा की है।

## ४) देहाती लोगो की अंधविश्वास एवम् धार्मिक कर्मकांड में आस्था :

भारतीय देहाती लोगों में शिक्षा के अभाव के कारण, जनसंचार माध्यमों के अभाव के कारण अंधविश्वास और धार्मिक कर्मकांड की प्रवृत्ती बहुत बढ़ गई है जिसके कई परिणाम भी देहाती लोग भुगत रहे है। इनका मानना है कुछ साधु, पंडित, फकीर, भोंदु पर ईश्वर प्रसन्न है और ऐसे लोगो की बात मानने के बाद हम पर भी ईश्वर प्रसन्न हो जाएगा। लेकिन यह सरासर झूठ है यह केवल देहाती लोगों की अंधविश्वासु प्रवृत्ती का फायदा उठाने का ढोंग है। उपन्यास का पात्र बनारसी ऐसा ही भोंदु है जो कहता है कि गाँव में पेटमुडुवा आया है जो गाँववालों का जीना मुश्किल कर रहा है, बनारसी के बहकावे में कई सारे गाँववाले आते है । बनारसी कहता है, 'बनमुर्गिया बनकर पकडा है पेटमुडुवा नें।

इसके अलावा देहाती लोगों में धार्मिक कर्मकाण्ड को लेकर भी काफी आस्था है। मनुवादी संस्कृति में बताऐ हुए कर्मकांड, पूजापाठ का अन्धानुकरण भारतीय देहाती लोग करते हैं। उपन्यास में आया हुआ ज्योतिषी मोतीलाल के घर के पेटमुडुवे को भगाने के लिए कुछ कर्मकाण्ड बताता है तब मोतीलाल की पत्नी ज्योतिषी की बातों पर विश्वास रखते हुए कहती है, "लेकीन आज तो साक्षात देवता ने यह बात उजागर कर दी।" मोतीलाल के साथ शीवलाल भी अपने पुत्र रामलाल को संतान नही हो रही है इसलिए कर्मकाण्ड पर कर्मकाण्ड कर रहा है अभी अभी उसने अपने घर हरिवंश पुराण का पाठ रखा है इस बात पर जैराम टिप्पणी देते हुए कहता है, "अबे पतित, जब तेरा लड़का हिजड़ा है तो भगवान क्या करेंगे ? भगवान कहाँ-कहाँ लडका पैदा करते चलेंगे, जब पूरा समाज हिज़डों से भरा हुआ है।" इससे जाहिर है कि आजादी के बाद भी भारतीय लोगों में धार्मिक कर्मकाण्ड की, अंधविश्वास की प्रवृत्ती स्पष्ट दिखाई दे रही है। उपन्यासकार जैराम जैसे पात्रों के माध्यम से वास्तविकता को पाठकों के सम्मुख लाने का प्रयास कर रहे है।

## ५) देहाती कूटनीति का चित्रण :

भारतीय समाज पर राजनीति ने खासा प्रभाव डाला है इससे समाज का एक भी पक्ष छूटा नहीं है इसके अलावा राजनीति के बारे में और एक तथ्य उजागर होता है वह है महानगरो की अपेक्षा देहाती लोगों का राजनीति पर ध्यान अधिक है। सांसद के चुनाव की अपेक्षा विधायक के चुनाव में, विधायक के चुनाव की अपेक्षा जिला परिषद के चुनाव में और जिला परिषद के चुनाव के अपेक्षा सरपंच के चुनाव में यह लोग ज्यादा रुचि रखते है।

उपन्यास में केंद्रित गाँव शिकारपुर में सरपंच पद के लिए जब चुनाव लगते है, तब भारतीय देहातों की कटू, संवेदनशील और घृणास्पद राजनीति का पर्दाफाश होता है। सरपंच पद के लिए सात लोगों को अपना मत देते का अधिकार है और सरपंच होने के लिए तीन लोग इच्छुक है। हर एक सदस्य के दो वोट तय है बचता है केवल एक वोट देवप्रकाश का जो निर्णायक है। देवप्रकाश का वोट प्राप्त करने के लिए शामदेव मोतीलाल को प्यादा बनाकर भेजता है, मोतीलाल कुछ प्रलोभन भी दिखाता है। इसके अलावा धर्मेन्द्र भी गलत-सलत मार्ग का अवलंब कर शामदेव को ही सरपंच बनने का लायक उम्मीदवार बताता है वह कहता है, "आप, लायक तो हैही, दूसरी सबसे बडी बात जो यह है कि आप अपने गाँव के है। लोगों के सु:ख-दु:ख में काम आएगें।" जिस व्यक्ति

ने जिंदगीभर लोगों को दु:ख दिया, गरीबों का शोषण किया उसके प्रति धर्मेन्द्र ऐसा कह रहा है इससे स्पष्ट है कि भारतीय देहाती राजनीति कितनी घृणास्पद है।

लेकिन देवप्रकाश जैसे आदर्श चरित्र एक आदर्श व्यक्ति को ही सरपंच के रुप में देखना चाहते है उनके दृष्टि से गाँव, प्रदेश, जाति, टोली यह महत्वपूर्ण नहीं है इन सबसे उपर उठकर वे मानवीय धर्म की बात करते है और ऐसा सोचनेवाले, आचरण करनेवाले व्यक्ति को ही अपना निर्णायक वोट देकर सरपंच बनवाते है देवप्रकाश का निम्न वाक्य लेखक के विचारों का प्रतिनिधित्व करता है, "समाज का बहुत छोटा अर्थ लगा रहे है आप। वास्तव में मै बहुत छोटे समाज से निकलकर एक बडे समाज से जुडना चाहता हूँ जो निरन्तर गाँव, जवार, प्रदेश देश की सीमाएँ तोडता हुआ अंतरराष्ट्रीय बन जाता है जहाँ समाज से जुडने का आधार टोलावाद, जातिवाद, स्वार्थवाद आदि नही होता, शुध्द मानवीय धर्म होता है।"

सारांशतः यह कहा जाएगा की लेखक रामदशरथ मिश्रजी ने शिकारपुर इस गाँव को केंद्र में रखकर भारतीय देहातों की वास्तविकता को व्यक्त किया है जिसमें उन्हें देहातों मे कई सारी समस्याओं का दर्शन हुआ जब तक देहातों से यह सारी समस्याएँ नष्ट नही हो जाएगी तब तक देहातों का पर्याय में भारत का विकास नही होगा। देवप्रकाश, जैराम, डॉ.सरोज जैसे कुछ लोग देहात की यह हालत सुधारने का प्रयास कर रहे है लेकिन धर्मेन्द्र, दयाल, शीवलाल जैसी विघातक प्रवृत्तियाँ इनको रोक रही है। यह भी तथ्य है।

# वर्तमान परिप्रेक्ष्य में भारतीय भाषाओं का वैश्वीकरण व अध्ययन-अध्यापन में महत्व 

प्रा. कोटुके बायजा महादेवःवसुंधरा महाविद्यालय, घाटनांदूर ता. अंबाजोगाई जि. बीड

वैश्वीकरण - बाजारीकरण के इस दौर में भारतीय भाषाओं को लेकर कई तरह के प्रश्न उपस्थित किये है। कुछ लोग तो यहाँ तक यह कह रहे है कि अंग्रेजी ही विश्व भाषा है और वैश्वीकरण की भी भाषा है। अत: देशी भाषाओं के का नये दौर में कोई भविष्य नही। परंन्तु वह यह भूल रहे है कि सभी तरह के शिक्षा - संस्कारो के ग्रहण शक्ति के विकास का केंद्र मातृभाषा है। जब तक बालक मातृभाषायी कौशलों का ठीक तहर से ग्रहण नही कर लेता तब तक लाख कोशिशों के बाबजूद अन्य भाषाओं के भाषायी कौशलों को अपना नहों पाता।

वैश्वीकरण - बाजारीकरण का एक पक्ष यह है कि अब भाषा केवल सामान्य बोलचाल और साहित्यिक सृजन के क्षेत्र में ही नहीं, जीवनचर्या के विभिन्न क्षेत्रों का आधार बन गई है। अब वही भाषा प्रतिष्ठा की अधिकारी होगी जो अपनी व्यवसायिक उपयुक्तता सिध्द करेगी, इसलिए वैश्वीकरण की दृष्टि से भारतीय भाषाओं ने बाजार पर अपना कब्ना कर लिया है। अब हमारा दायित्व है कि हमारी भाषाओ को हमें सभी क्षेत्रों में प्रतिष्ठित करना चाहिए।

संचार माध्यम चाहे वह मुद्रित हो, श्रव्य हो या दृश्य - श्राव्य, आज अपने आप में एक व्यवसाय बन गया है। और उद्योग और व्यापार का एक प्रमुख माध्यम भी। "जनसंचार माध्यमों ने सामाजिक व्यवस्था, राजनीति, व्यापार, उत्पादन, कृषि, शिक्षा, अभियांत्रिकी, साहित्य, संस्कृति, अनुसंधान, चिकित्सा, विधि, वाणिज्य, वित्त, मनोरंजन जैसे क्षेत्रों को प्रभावित किया है।" विज्ञापन ‘वैश्वीकरण’ के खुले बाजार का एक सशक्त माध्यम है। आरंभ में विज्ञापनों पर भी अँगेजी छाई हुई थी, लेकिन आज भारतीय भाषाओं ने उस पर कब्जा कर लिया है। विज्ञापन जगत भारतीय भाषाओं का महत्व समझ रहा है, उसमें भारतीय भाषा अग्रस्थान पर है। आज संचार साधनों में सन्देश सेवा के लिए मशीनी प्रयोग को बढावा मिला है। जिसमें टेलीफोन, टी. वी., कॉम्प्युटर, ई-मेल, इंटरनेट, टेलीनेट, इ. एन्युकेशन, आदि ने सामाजिक, आर्थिक, सांस्कृतिक, साहित्यिक, व्यावहारिक, राजनीतिक जीवन प्रणाली को तीव्र गति से बदल दिया है। जिसमें हमारी भारतीय भाषाओं की भूमिका महत्वपूर्ण है।

वैध्वीकरण भूमण्डलीकरण, उदारीकरण, निजीकरण, के परिप्रेक्ष्य में आम लोगों के लिए भारतीय भाषा में संगणक के काम करने के लिए अनेक सॉफ्टवेअर कम्पनियों ने अपना योगदान दिया है। मल्टी-मीडिया की पूरी शृखंला विकसित की है। इसी क्रम में भारतीय भाषाओं में अनेकों अत्यंत उपयोगी सॉफ्टवेअर भी विकसित किए है।

## भारतीय भाषा का अध्ययन-अध्यापन की दृष्टि से उपाय:-

१. हमारा झुकाव अँग्रेजी की तरफ न होकर भारतीय भाषाओं की तरफ होना चाहिए।
२. वैश्वीकरण के दौर में अंग्रेजी के आक्रमण से देशी भाषाएँ कमजोर हो रही है, कई भाषाएँ तो जल्द ही लुप्त होने के कगार पर हैं। इसलिए आवश्यक है कि देशी भाषाओं को मात्र बचाना नही है बल्कि उन्हें इतना सक्षम करना होगा कि नयी - व्यवस्था में भी अपने अस्तित्व को कायम रख सकें।
३. किसी भी राष्ट्र के लिए आवश्यक है कि वह अपने देश की भाषा की लिपि को एक रखे जिससे भाषा का महत्व ओर मजबूती बढती है। इसलिए लिपियों में समानता लाने के लिए प्रयास करना चाहिए।
४. भारत की सभी भाषाओं की लिपि अगर एक हो जाय तो भारत की एकता - अस्मिता अधिक दृढ हो सकती है। विनोबाजी ने कहा था कि, "युरोप में अनेक भाषाएँ है लेकिन उनकी लिपि एक है।" उसी प्रकार भारतीय भाषाओं की लिपि अध्ययन - अध्यापन की दृष्टि से एक समान करने के लिए कार्य करने की आवश्यकता है।
4. भारत की विभिन्न सॉफ्टवेअर कम्पनियों ने भारतीय भाषाओं में संगणक पर कार्य करने हेतु विभिन्न प्रकार के पैकेजेस तैयार किये है। आई. सी. आई. आई. के रुप में भारतीय भाषाओं के लिए मानक कोड प्रणाली विकसित की है। इसका अध्ययन - अध्यापन की दृष्टि से अधिक प्रचार - प्रसार होना चाहिए।
६. अध्ययन-अध्यापन की दृष्टि से भारतीय भाषाओं में शोध, अनुसंधान, व्यवसायिक एवं वैज्ञानिक दृष्टिकोण लाने की आवश्यकता है।

इस दृष्टि से भारतीय भाषाओं को और अधिक उपयोगी बनाने की अब आवश्यकता है, क्योंकि समग्र विकाससे ही समग्र समाज का विकास होता है। जिसमें भाषा की अहम् भूमिका होती है।
निष्कर्ष:- निष्कर्ष में हम कह सकते है कि भारतीय भाषाएँ केवल साहित्य की भाषा ही नहीं है, बल्कि आज वह तकनीक विज्ञान, प्रविधि, प्रौद्योगिकी, व्यवसाय व बाजार की भाषा बन गई है। आज के बदलते परिवेश में पूरा विश्व तकनीकि प्रगति के कारण एक सूत्र में बंध गया है। धर्म, ज्ञान, तंत्र, संप्रदाय इत्यादि सभी को भाषा सूचना तंत्र का महाजाल आकर्षित कर रहा है। इसमें भाषा की संकल्पना विश्वभाषा के रुप में प्रतिष्ठित हो रही है। इसलिए अध्ययन-अध्यापन के लिए भारतीय भाषाओं का महत्व बढाने की आवश्यकता है।

## संदर्भग्रंश्थ:-

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संस्थान नयी दिल्ली - ११०००२

# संत गाडगेबाबा अमरावती विद्यापीठ अंतर्गत अकोला जिले के शारीरिक शिक्षा संचालकों का कला (विद्याशाखा) महाविद्यालयो में, शारीरिक शिक्षा विषय को ऐच्छिक स्वरुप में लागू करने के विषय मे अभिमत 

डॉ.सुवर्णरेखा ना. देशमुखःसीताबाई कला महाविद्यालय, अकोला

सार :- संत गाडगे बाबा अमरावती विद्यापीठ के अंतर्गत शारीरिक शिक्षा विषय ‘शारीरिक क्षमता जांच’ इस स्वरुप में ही अभी प्रचलित है। इस तुलना मे महाराष्ट्र में कोल्हापूर के शिवाजी विद्यापीठ मे बी.ए. पदवी स्तर पर अन्य विषयोंके समान शारीरिक शिक्षण विषय को एक महत्व पूर्ण विषय के रुप में विद्यार्थियों के लिए ऐच्छिक स्वरुप मे उपलब्ध कराया गया है। अगर हम अमरावती विद्यापीठ मे इस विषय को लागू कर सके तो कला शाखा के विद्यार्थियों के लिए एक गुण स्कोअर करने वाले विषय के रुप मे उपलब्ध हो सकता है। प्रस्तुत अनुसंधान से प्रश्नावली पध्दती व्दारा १८ प्रश्नो की एक प्रश्नावली बनाकर उसे अकोला जिले के १५ शारीरिक शिक्षा संचालको व्दारा भरवा कर उसके व्दारा निष्कर्ष निकाले गये है। इस अनुसंधान के निष्कर्ष भी बहुत ही सकारात्मक आये है। यह विषय बी.ए. पदवी स्तर पर लागू करना चाहिए। इस विषयको सिखाने की तैयारी शारीरिक शिक्षा संचालको ने दर्शाई है। इस अनुसंधान के वजहसे खेल के संघ तैयार करने में मदत मिलेगी तथा विद्यार्थी और शारीरिक शिक्षा संचालक इनके ज्ञान और कौशल्य में वृध्दि हो सकती है। यह दिखाई दिया है।

## प्रस्तावना:-

जो शिक्षा मनुष्य के जन्म से शुरु होती है। जिस शिक्षा का व्यवहारिक दृष्टिकोन से अन्य विषयों के तुलना मे किसी भी प्रकार से कम महत्व नही है। इतिहास गवाह है कि, हर देश मे उस देश के रक्षा करने वाले पहरेदार खेल के मैदान पर ही निर्मित हुये है। इतने आवश्यक शारीरिक शिक्षा को हम अब तक अध्ययन - अध्यापन का विषय न बनाकर कितने सारे देश के पहरेदारों को बनाने से वंचित रहे है।

बहुत अधिक बुध्दिमान लोग शारीरिक दृष्टि से कमजोर रहते है, ऐसा कहा जाता है। क्योकि एक ही समय दोनो शक्तियों का विकास स्वतंत्रता से जितना होना चाहिए, उतना हो नही सकता। इसलिए समझदार और बुध्दिमान लोग शारीरिक श्रम का कार्य तथा बौध्दिक विकास का कार्य एक ही समय समान गति से कर नही सकते। यह जानकर उसमे वह समानता लाना चाहते है, और यह कार्य शारीरिक शिक्षा व्दारा ही हो सकता है। यह वह जानते है।

स्वतंत्रता प्राप्ति के बाद भारत सरकार के शिक्षण मंत्रालय मे शारीरिक शिक्षा का स्वतंत्र विभाग शुरु किया है। विद्यापीठ के अंतर्गत शिक्षण की पुर्न:रचना करने के लिए इ.स.१९५० में राधाककृष्णन की अध्यक्षता में आयोजित विद्यापीठ के शिक्षा मंडल ने अपने प्रतिवेदन में महाविद्यालय के विद्यार्थीयों के शारीरिक शिक्षा एवं क्रीडा विकास के बारे में सुझाव दिये।

शारीरिक शिक्षा की जरुरत एवं महत्व को ध्यान में रखकर महाराष्ट्र सरकारने सन १९६९ में आचार्य भिसेजी के अध्यक्षता में एक समिति नियुक्त की गई। समिति व्दारा दिये गये सुझावो मे एक महत्व पूर्ण सूचना ऐसी भी थी की, शारीरिक शिक्षा की परीक्षा लेनी चाहिए एवं इस विषय की तासिकाओं में वृध्दि करनी चाहिए। क्योंकि परीक्षा के बिना मूल्याकन नही हो सकता तथा प्रगति भी नही हो सकती।

कोठारी आयोग ने इ.स. १९६४-६६ में प्रचलित शालेय अभ्यासक्रम यह आधुनिक समय से ही सुसंगत नही है, ऐसा उल्लेख करते हुए यह भी सूचित किया कि, शिक्षा विभाग, विद्यालयों एवं महाविद्यालयों का अभ्यासक्रम सुधारने के दृष्टिकोण से संशोधन करना चाहिए।

उपरोक्त विवेचन से स्पष्ट होता है कि, शारीरिक शिक्षा को सामान्य शिक्षा के एक अविभाज्य घटक के रुप मे स्विकृत किया गया है। यह शिक्षा अभी सिर्फ शारीरिक स्वरुप में न रह कर पूर्णतः शिक्षा के श्रेणी में सम्मिलित हुई है तथा विद्यार्थी यों का विकास करने वाली शिक्षा बन गयी है।

शारीरिक शिक्षा का महत्व जानकर कुछ विद्यापीठों ने एक ऐच्छिक विषय के रुप मे इस विषय को मान्यता दी हुई है। उदाहरणणार्थ पॉडेचरी विद्यापीठ, पंजाब विद्यापीठ, गुरुनानकदेव विद्यापीठ, महाराष्ट्र मे मराठवाडा विद्यापीठ एवं कोल्हापूर का शिवाजी विद्यापीठ इत्यादि। इससे महाविद्यालयीन स्तर पर भी इस विषय के अभ्यासक्रम एवं परीक्षा को लागू किया जा सकता है यह दिखाई देता है। इस तरह यह भी स्पष्ट होता है कि, अन्य विद्यापीठों में भी इस विषय को ऐच्छिक विषय के रुप में सम्मिलित कर सकते है।

## ध्येय एवं उद्देश्य :

इस संशोधन का प्रमुख ध्येय विद्यार्थीयों का सर्वांगीण विकास करना एवं उनका व्यर्थ जानेवाला समय खेल, अभ्यास एवं कौशल्य बढाने में जाना चाहिए। शारीरिक शिक्षा विषय का प्रमुख उद्देश्य यह है कि, संत गाडगे बाबा अमरावती विद्यापीठ अंतर्गत पदवी स्तर पर कला महाविद्यालयो में शारीरिक शिक्षा लागू करना एवं विद्यापीठ व्दारा क्या उसकी परीक्षा लेनी चाहिए ? क्या इस विषय को कला महाविद्यालयो में परीक्षा का विषय बनानेके लिए कुछ अडचने आती है ? क्या उन अडचनों को दूर किया जा सकता है ? यह शारीरिक शिक्षा संचालको के अभिप्राय व्दारा जान लेना है।

## महत्व :

भारत के कुछ चुनिंदा विद्यापीठो ने शारीरिक शिक्षा विषय को कला महाविद्यालयों में पदवी स्तर पर विद्यापीठ मे परीक्षा का ऐच्छिक विषय के रुप मे लागू किया हुआ है। ऐसी अवस्था में सं.गा.बा. विद्यापीठाने अगर यह विषय कला महाविद्यालयों मे ऐच्छिक रुप मे यदि यह विषय लागू किया एवं विद्यापीठ व्दारा परीक्षा ली गई तो विद्यार्थीयोंका सर्वागीण विकास होने में मदद मिल सकेगी। इतना ही नही इस विषय के वजह से एक गुण स्कोअर करनेवाला विषय के रुप में विद्यार्थियों को भरपूर सहायता मिल सकता है। वैसे ही विद्यार्थियों का व्यर्थ बातो में जानेवाला समय खेल, कौशल्य, बढाने में जा सकता है और अच्छा संघ बनाने में मे मदद मिल सकती है। इतना ही नही शारीरिक शिक्षा का दर्जा सुधारने के लिए शारीरिक शिक्षा संचालकों को भी अधिक ज्ञान प्राप्त होगा एवं

सच्चे अर्थसे वह ‘प्राध्यापक’ बन सकेंगे।

## परिकल्पना :

इस अनुसंधान से मुख्य रुप मे क्या संशोधित करना है ? इस अनुसंधानसे प्रमुख रुप मे क्या मिलने वाला है। इसी पर इस अनुसंधान की परिभाषा आधारित है। भारत के अनेक विद्यापीठों में शारीरिक शिक्षा को कला शाखा में अन्य विषयों के समान एक एच्छिक विषय के रुप में लागू किया गया है। इतना ही नही इस विषय कि परीक्षा भी विद्यापीठ व्दारा ली जाती है। याने सच्चे अर्थसे इन विद्यापीठो ने शारीरिक शिक्षा को समान दर्जा दिया हुआ है। इस विषय में प्रायोगिक होने के कारण 'गुण स्कोअर' करनेवाले विषय के रुप में विद्यार्थियों को भरपूर मदत मिल सकती है। ऐसी अवस्था में अमरावती विद्यापीठ ने शारीरिक शिक्षा को अन्य विषयों के समान कला महाविद्यालयो में एक ऐच्छिक परीक्षा का विषय बनकर इस विषय को क्यो नही लागू करना चाहिए? इस दृष्टिकोण से अमरावती विद्यापीठतंर्गत अकोला जिले के कला महाविद्यालयो में शारीरिक शिक्षण संचालकों वो क्या लगता है। यह विषय कौन सिखायेगा ? अगर शारीरिक शिक्षा संचालक इस विषय को सिखायेंगे तो क्या उन्हे तासिका के प्रमाण मे मानधन की अपेक्षा रहेगी क्या ? यह विषय सिखाने के लिए उन्हे विशेष रुप से कुछ तैयारी करनी होगी क्या ? यह विषय अमरावती विद्यापीठ के परीक्षा का विषय बनाने के बाद इस विषय का अभ्यास मंडल बना सकता है क्या ? इस विषय के प्रायोगिक एवं लिखित विभाग के लिए गुण किस प्रकार रखने चाहिए। ऐसे अनेक सवालों के जवाब इस अनुसंधान से प्राप्त हो सकते है। इस बारे मे सभी शारीरिक शिक्षा संचालकों के अभिमत परिकल्पना इस अनुसंधान के पीछे है।

## मर्यादा :

यह अनुसंधान सिर्फ सं.गा. बा. अमरावती विद्यापीठतंर्गत आने वाले अकोला जिले तक ही मर्यादित रखा गया है। अकोला जिले के कला (विद्या) शाखा के महाविद्यालयो एवं शारीरिक शिक्षा संचालकों की संख्या ध्यान में रखकर सिर्फ १५ संचालकों की संख्या निर्धारित रखी गई है। कुछ २५ कला महाविद्यालयों में प्रश्नावली भेजी गई है। प्रश्नावली ब्दारा दिए गये जवाब संचालको ने प्रामाणिकता से दिए है। यह समझा जायेगा।

## संशोधन पध्दती:

अठारह प्रश्नो की एक प्रश्नावली बनाकर अकोला जिले के कला महाविद्यालयो में कार्यरत शारीरिक शिक्षा संचालकों से कुछ प्रत्यक्ष रुप में भरवा ली गई एवं कुछ संचालकों को डाक व्दारा भेजी गई थी। प्रश्नावली में ‘सहमत-असहकत एवं पर्याय’ इस पध्दतीसे सतरह प्रश्नों को दिया गया था। अठारहवां प्रश्न यह संचालकों को अनुसंधान संबंधी और कुछ बताने के लिए खाली छोड दिया गया था।

## सांख्यकीय विश्लेषण :

प्रश्नावली के माध्यम से मिली जानकारी इकठ्ठा करके उसका सांख्यकीय दृष्टिकोण से विश्लेषण करके सारणी में दर्शाया गया है।

प्रश्न क्र.१ : इक्कीसवी सदी मे बुध्दिमत्ता के बराबर शारीरिक शिक्षा क्षमता को महत्व प्राप्त हुवा है क्या ?

सहमत / असहमत
प्रतिसादक

सारणी क्र. ?
वारंवारिता

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| :--- | :--- | :--- |
| १५ | 0 | 0 |
| १०० | 0 | 0 |

अ-सहमत ब-असहमत क-अनुत्तरित
इस प्रश्न का जवाब १०० 'सहमत' देने वाले प्रतिसादक दिखाई दिए है।
प्रश्न क्र.२ : महाविद्यालयो में शारीरिक शिक्षा विभाग होकर भी शारीरिक शिक्षा विषय का प्रमाणित अभ्यासक्रम न होने से इस विषय की परीक्षा विद्यापीठ व्दारा ली जाती है। इस लिए विषय का प्रमाणिक अभ्यासक्रम होना चाहिए एवं विद्यापीठ ब्दारा इसकी परीक्षा लेनी चाहिए ऐसा आपको लगता है क्या ?

सहमत / असहमत

प्रतिसादक
सारणी क्र.२
वारंवारिता

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| 94 | $\circ$ | 0 |
| 900 | 0 | 0 |

> अ-सहमत ब-असहमत क-अनुत्तरित

इस प्रश्न का जवाब १०० 'सहमत' देने वाले प्रतिसादक दिखाई दिए है।
प्रश्न क्र.३ : महाराष्ट्र कि शिवाजी विद्यापीठ, कोल्हापूर में ऐच्छिक विषय के रुप मे कला महाविद्यालयों में यह विषय लागू किया गया है। कोल्हापूर विद्यापीठ समान अपने अमरावती के विद्यापीठतंग्तत कला महाविद्यालयों में यह विषय कला शाखामे शुरु करना चाहिए क्या ?

सहमत / असहमत

प्रतिसादक

|  | अ | ब | क |
| :--- | :--- | :--- | :--- |
| १५ | १५ | $\circ$ | $\circ$ |
| सैकडा प्रमाण | १०० | $\circ$ | $\circ$ |
| सांकेतीकरण |  |  |  |

अ-सहमत ब-असहमत क-अनुत्तरित

इस प्रश्नके संदर्भ में प्रतिसादको ने १०० 'सहमती’ प्रतिसादक दर्शाई है।

प्रश्न क्र.४ : शारीरिक शिक्षा यह विकासशील एक विद्याशाखके रुप में विद्यापीठो में महत्वपूर्ण मानी गई है। भारत देश भी विकासशील देश होने से शारीरिक शिक्षा को विद्याशाखाका स्वतंत्र रुप से दर्जा दिया गया नही है। ऐसे अवस्था में दर्जा देना चाहिए क्या ?

सहमत / असहमत
प्रतिसादक

|  | अ | ब | क |
| :--- | :--- | :--- | :--- |
| १५ | १५ | $\circ$ | $\circ$ |
| सैकडा प्रमाण | १०० | $\circ$ | $\circ$ |
| सांकेतीकरण |  |  |  |

इस प्रश्नके संदर्भ में प्रतिसादको ने १०० ‘सहमती’ प्रतिसादक दर्शाई है।
प्रश्न क्र.५ : सुदृढ शरीर में सुदृढ मस्तिष्क रहता है। ज्ञान प्राप्ति के लिए सुदृढ शरीर अत्यंत आवश्यक है। उच्च स्तरपर ज्ञान प्राप्ति के सभी केद्रों ने (महाविद्यालयो) विद्यार्थीयों का सुदृढ मस्तिष्क होना चाहिए। इस लिए शारीरिक शिक्षा विषय ऐच्छिक रखना अत्यंत जरुरी है। आप इस विचारसे सहमत है क्या ?

सहमत / असहमत
प्रतिसादक

|  | अ | ब | क |
| :--- | :--- | :--- | :--- |
| १५ | १५ | $\circ$ | $\circ$ |
| सैकडा प्रमाण | $१ 00$ | $\circ$ | $\circ$ |
| सांकेतीकरण |  |  |  |

अ-सहमत ब-असहमत क-अनुत्तरित
इस प्रश्नके संदर्भ में प्रतिसादको ने १०० 'सहमती' दर्शाई है। यह दिखाई दिया है।
प्रश्न क्र.६ : इक्कीसवी शताब्दी में महाविद्यालय स्तर पर विद्यार्थीयों का इलेक्ट्रॉनिक मिडीया ने मनोरंजन के इतने सारे साधन उपलक्ध कराए है कि, वे खेल एवं व्यायाम को गौड़ समझकर शारीरिक क्षमता को बढाने के लिए कोई भी प्रयास नही करते । अगर यह विषय परीक्षा का विषय बना तो विद्यार्थी / विद्यार्थींनी अभ्यासक्रम के अनुसार खेल खेलेंगे एवं शरीर और मन सुदृढ बनाने के लिए उपयोग में लायेंगे। ऐसी शिक्षा की नीति है। इस नीति की तरफ जानबूझकर दुर्लक्ष किया जाता है क्या ?

## पंचायतराज व्यवस्था आणि महिला नेतृत्व

श्री स्वप्निल हनुमंतराव पेंडलवार : अधिव्याख्याता,लोकप्रशासन विभाग,पीपल्स महाविद्यालय, नांदेड. आणि संशोधक, स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड.
श्री भालचंद्र धर्मापुरीकर: अधिव्याख्याता , राज्यशास्त्र विभाग, एन.एस.बी. महाविद्यालय, नांदेड.आणि संशोधक, स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड.

भारताने स्वातंत्र्य प्राप्तीनंतर लोकराहीचे बी रुजवण्यासाठी सामाजिक, राजकीय व आर्थिक व्यवस्थेत राज्यघटनेच्या माध्यमातून अनेक महत्वपूर्ण परिवर्तन घडवून आणले. त्यापैकीच एक आहे. विकेंद्रीकरण घडवून आणण्यासाठी निर्माण केलेली पंचायतराज व्यवस्था या व्यवस्थेमध्ये ग्रामीण भागांचा परिपूर्ण विकास घडून येण्यास मदत झाली. खेडयामध्ये सामाजिक, राजकीय जागृतीचे वारे वाहू लागले. लोकराहीचे विकेंद्रीकरण झाले. राजकीय नेतृत्वाचा विकास ग्रामीण भागात होऊ लागला. स्थानिक लोकांचा शासकीय सहभाग वाठला. परंतू याचबरोबर पंचायत व्यवस्थेमुळे महिलांचे सराक्तीकरण देखील घडून येत आहे. महिला नेतृत्व भक्कम व प्रभावी होत आहे. ही बाब दुर्लक्षित होय. पंचायतराज व्यवस्थेचा महिला नेतृत्वावर होणारा प्रभाव प्रस्तुत लेखात स्पष्ट केला आहे.

भारताचे राष्ट्रपिता महात्मा गांधी यांच्या मते खरी लोकराही तिच असते ज्यामध्ये समाजातील सर्वात खालच्या स्तरावर असलेल्या नागरीकांचा समावेश असेल आणि हे तेब्हाच राक्य होईल जेन्हा त्यांना राजकीय निर्णय घेण्याचा अधिकार दिला जाईल. त्यांच्या मतानुसार शासकीय यंत्रणा कार्यान्वित होईल. गांधीजींच्या मते लोकशाहीची अंमलबजावणी राजकीय व्यवस्थेच्या सर्वोच्च पदांवर असलेल्या काही मुठभर लोकांद्वारे होणार नाही. तर ती समाजातील प्रत्येक स्तरावर असलेल्या नागरीकांद्वारेच शाक्य आहे. लोकराही विकेंद्रीकरणाची प्रक्रिया प्रत्येक गावात पार पडली पाहिजे. त्यांच्या या विधानावरून असे लक्षात येते की त्यांनी पंचायत व्यवस्थेचा हिरोरीने पुढाकार केला होता.त्यांच्या या विचारसरणीची अंमलबजावणी देखील करण्यात आली. भारतीय राज्यघटनेत कलम $४ ०$ अन्तर्गत ग्रामस्तरावर ग्रामपंचायत स्थापन करण्यासंबंधीची तरतुद करण्यात आली. पंचायत व्यवस्थेमुळे अनेक सकारात्मक बदल घडून आले. उदा. लोकझाही शासन व्यवस्थेत जास्तीत जास्त लोकांचा सहभाग कार्यक्षम व स्थिर शासनासाठी आवइयक मानला जातो जो पंचायत व्यवस्थेमुके घडून आला. मूल्यांची जाणीव ग्रामीण भागातील नागरिकांना झाली. स्थानिक नागरिकांना राजकीय दृष्या शिक्षित व प्रशिक्षित करण्यासाठी पंचायत व्यवस्था महत्वपूर्ण ठरली. परंतु यापेक्षाही महत्त्वपूर्ण ठरली ती महिला सराक्तिकरणामध्ये. स्त्री ही संपूर्ण देशाच्या विकासाचा केंद्रबिंदू असते. शाइवत आणि सातत्यपूर्ण विकास घडवून आणण्यासाठी महिलांचा सहभाग प्रत्येकच क्षेत्रात महत्वाचा असतो.

माहीती तंत्र्ञानाच्या क्रांतीमुळे आज जग एका वैरिवक खेडयात रुपांतरीत झाले आहे. आज स्त्रिया विमान चालविण्यापासून ते ॅटो-रिक्षा चालविण्यापर्यंत आणि घर चालविण्यापासून देश चालविण्यापर्यंत सक्षम झाल्या आहेत. इंद्रा नुयी सोनिया गांधी, कल्पना चावला, मिरा कुमारी ही सर्व नारीशक्तिची उदाहरण हेच सिध्द करतात की स्त्री ही कोणत्या क्षेत्रात पुढे आहे, उदा. स्त्रियांचा साक्षरता दर पुरुषांपेक्षा जास्त आहे. तरीदेखील भारतीय समाज हा पुरुषपधान समाज म्हणून ओळखला जातो. परंतू आजघडीला परिस्थिती बदलत आहे. पंचायत व्यवस्थेमध्ये स्त्रीयांना दिलेले एक तृतीयांश आरक्षण महिला विकासामधील एक क्रांतिकारी पाऊल म्हणून ओळखले जाते. अनेक राज्यांमध्ये तर हे आरक्षण 40 टक्के दिले गेले. यावरुन हे सिध्द होते की स्त्रियांचे अस्तित्व आज समाज मान्य करीत आहे. हरीयाणा राज्यामधील फिरोजपूर तालुक्यातील निमखेडा पंचायतीमध्ये सर्वपदांवर महिला विराजमान आहे. हा एक न तुटणारा रिकॉर्ड आहे. आसाम राज्यात पंचायत व्यवस्थेत स्त्रियांना ३३ टक्के आरक्षण देण्यात आले. परंतु तेथे ५० ते ३८ टक्के स्त्रिया पंचायतीमध्ये अध्यक्ष पदावर आहेत. परंतु केरळ राज्यात परिस्थिती आसामपेक्षा पुठे आहे. केरळमध्ये ३३ टक्के

आरक्षण दिलेले असून ५० टक्के स्त्रिया अध्यक्ष पदावर आहेत. कर्नाटक राज्यामध्ये ही टक्केवारी ૪३.६३ टक्वे तर गुजरात राज्यांत ही टक्केवारी एकूण ५०.३० टक्के आहे. यावरुन असे स्पष्ट करता येते की, स्त्रियांनी आपले नेतृत्व सिध्द केले आहे. ३३ टक्के पेक्षा जास्त नेतृत्व महिलांमध्ये वाढत असलेल्या राजकीय चेतना जागृतीचे प्रतिक आहे. डिसेंबर २००६ मध्ये पंचायतराज व्यवस्थेमध्ये महिला नेतृत्व महिलांमध्ये वाढत असलेल्या राजकीय चेतना जागृतीचे प्रतिक आहे. डिसेंबर २००६ मध्ये पंचायतराज व्यवस्थेमध्ये महिला नेतृत्व तपासण्यासाठी केंद्र सरकारामार्फत एक सर्वेक्षण करण्यात आले. यामध्ये असे आढठ्रन आले की, या व्यवस्थेत एकूण महिला प्रतिनिधित्व ३६.०७ टक्के एवढे होते. बिहार राज्य ५४.०१ टक्केवारीसह प्रथम क्रमांकावर होते. स्थानिक स्वराज्यसंस्थेमध्ये महिला नेतृत्वाची यशस्विता तपासण्यासाठी संयुक्त राष्ट्रसंघाच्या यु. एन.पी.ए. नावाच्या एजन्सीने एक सर्वे केला आणि एक रिपोर्ट तयार करुन त्यात असे नमूद केले की, स्थानिक स्वराज्य संस्थांमध्ये दिलेल्या आरक्षणामुळे महिलांमध्ये राजकीय जागृती आणि नेतृत्वक्षमता विकसित होण्यास मदत झाली आहे. परंतू अनेक असे अडथळे आणि समस्या आहेत ज्या महिला नेतृत्वाला खीळ बसवत आहेत. महिला नेतृत्वामध्ये अडथळा निर्माण करणारा सर्वात महत्वाचा घटक आहे. पुरुषप्रधान समाजाची विचारधारा. आज सुध्दा अनेक स्त्रिया चूल आणि मूल यापलिकडे गेलेल्या नाहीत. कुटूंबातून स्त्रियांना अपेक्षित असे सहकार्य मिळत नाही. अनेकदा घरातील पुरुष मंडळीच स्त्रियांना बाहेरच्या जगात स्वतःचे स्वतंत्र अस्तित्व निर्माण करण्यात अडथळा निर्माण करतात. जोपर्यंत त्यांच्या मानसिकतेत बदल होत नाही. तोपर्यंत परिस्थिती ‘जैसे थे’ राहील. अनेक गावांमध्ये महिला सरपंच हया नामधारी पद भूषवितांना दिसून येतात. त्यांच्या ऐवजी त्यांचे पतीच कारभार पाहत असतात. सरपंच पदी निवडून आल्यानंतर त्यांना प्रशिक्षण देणे आवश्यक आहे. परंतु ते त्यांना मिळत नाही. महिला आरक्षणामुळे अनेक महिलांना स्वयंविकासाची संधी प्राप्त झाली आहे परंतु पुन्हा निवडून येण्याकरीता आरक्षित जागांमध्ये सध्याच्या बदलाचे धोरण (Rotation of Seat) धोरण बदलणे अत्यंत आवश्यक आहे. महिला जेवढया जास्त वर्ष राजकारणात निवडून येत राहतील तेवढीच त्यांची कामगिरी सुधारत जाईल. त्यामुळे केवळ ३३ टक्के अथवा ५० टक्के आरक्षण देऊन महिलांना राजकारणात आणण्यापेक्षा त्या जास्त काळ पदावर राहतील याची दखल सरकारने घेतली पाहिजे. स्वयं सहायता गट, महिला बचत गट व इतर सामाजिक संस्थांच्या माध्यमातून स्त्रियांना सक्षम बनवून राजकीय व्यवस्थेत येण्याचा मार्ग निर्माण केला जावा. ग्रामीण भागातील स्त्रियांच्या अनेकवित समस्यांपैकी एक प्रमुख समस्या दारिद्रय होय. राजकीय व्यवस्थेत महिलांचा अधिकाधिक व परिणामकारक सहभाग मिळविण्यासाठी त्यांना दिल्या जाणाॅ्या मानधनामध्ये वाढ केली जावी महिलांच्या बहुतांश समस्या हया निरक्षरतेमुळे निर्माण होतात. शिक्षणाचा प्रत्यक्ष प्रभाव त्यांच्या कार्यावर होतो. त्यामुळे महिलांच्या शिक्षणाकडे कटाक्षाने लक्ष देणे आजच्या काळाची गरज आहे. महिलांना राजकीय प्रक्रियेव्दारा शक्ति प्रदान केल्यामुळे त्यांच्यात निर्णयक्षमता वाढेल, त्यांचा कारभारातील गुणात्मक सहभाग वाढेल आणि या सर्वांचा चांगला परिणाम त्यांच्या कामगिरीवर होईल व सोबतच त्यांचा वैयक्तिक विकासही होईल. थोडक्यात असेच म्हणता येईल की भारतामध्ये महिला नेतृत्व विकसित करण्यात पंचायतराज व्यवस्थेने महत्त्वपूर्ण भूमिका बजावली आहे. महिलांचे घरातील स्थान व समाजातील स्थान तसेच स्वत:बद्दलचा आदर आणि आत्मविश्वास वाठला आहे आणि हे परिवर्तन भारतीय समाज व्यवस्थेसाठी आनंदाची बाब आहे. ज्याचे श्रेय फक्त पंचायत राज व्यवस्थेला जाते.
संदर्भ स्त्रोत:
१) Study on ENRs Panchyati Raj Institutions based on Nationwide survey by AC Nielsen ORGMARG published by ministry of Panchayati Raj.
२) कुरुक्षेत्र, जाने २००९ व्हॉल. ५८.

# "स्वयंसहायय गटातून महिलांचा विकास : <br> नांदेड शहारातील महिला स्वयंसहाट्य गटाचा अभ्यास" 

## प्रा. सौ. माळी सुनिता बळीराम, पीपल्स कॉलेज, नांदेड.

## १. प्रस्तावना :

भारतात स्वातंत्र्यानंतर भारत सरकारने सामाजिक विकासाच्या आणि कल्याणाच्या दृष्टीने अनेक योजना जाहीर करुन समाजातील विविध घटकांचा विकास आणि समाजाचे कल्याण साधण्याचा प्रयत्न केला. परंतु या विकास प्रक्रियेत ‘महिला' हा घटक सातत्याने वंचित व उपेक्षितच राहिला. नंतरच्या काळात सरकारने ‘महिला' विकासाच्या विविध योजना जाहिर करुन त्याद्वारे महिलांचे समाजातील स्थान उंचवण्याचा प्रयत्न केला. त्यातही अपेक्षेप्रमाणे यश मिळाले नाही. याचे कारण म्हणजे अज्ञान, निरक्षरता, अंधश्रध्दा, रुढी, परंपरा, गरीबी होय. आपल्या देशातील पुरुषप्रधान संस्कृतीमुळे महिलांना दुय्यम दर्जाचे स्थान दिले जाते. याशिवाय त्या आर्थिक बाबतीत परावलंबी असल्यामुळे स्वतःच्या गरजा स्वत: पूर्ण करु शकत नाहीत. खर्या अर्थाने त्यांचा विकास करावयाचा असेल तर त्य आर्थिक बाबतीत स्वावलंबी होणे गरजेचे आहे. महिलांना आर्थिक बाबतीत स्वावलंबी बनवण्याचे कार्य स्वयंसहाय्यता गटाच्या माध्यामातुन केले जात आहे. महिलांच्या आर्थिक व सामाजिक विकासात स्वयंसहाय्य गटाचा सक्रीय वाटा आहे.

स्वयंसहाय्यता गट चळवळ ही महिलांच्या आर्थिक प्रश्नांची सोडवणुक करण्यासाठी असली तरीही महिलांच्या वैयक्तिक, सामाजिक, शैक्षणिक आरोग्य विषयक प्रश्नांची सोडवणुक देखील या गटाच्या माध्यामातून होत आहे.

स्वयंसहाय्य गटाच्या माध्यमातून महिलांचे सबलीकरण त्यांच्या आत्मशक्तीचा विकास होत असून त्यांना आर्थिक व सामाजिक पाठबळ मिळत आहे. समाजातील सर्वच तळागळातील गरीब कष्टकरी महिलांना कुटुंबातील उत्पन्न कमी व खर्च जास्त त्यामुळे अनेक समस्यांना तोंड द्यावे लागत असे. परंतु स्वयं सहाय्य गटामुळे आज ह्याच महिला छोटी-छोटी रक्कम बचत करुन एकत्रित जमा केलेल्या करण्यात आलेल्या सामुहिक निधिचा वापर आपल्या गटातील सर्व सदस्यांच्या आर्थिक गरजा भागविण्यासाठी मदत करीत आहेत.

## २. स्वयंसहाय्यता गटाची संकल्पना :

स्वयंसहाय्यता गट संकल्पनेचा उगम जगात असलेल्या दारिद्रयातून आणि गरीब जनतेला वित्तीय पुरवठ्याच्या वंचिततेतून झाला.

स्वयंसहाय्यता गट "Self Help Group" यालाच बोली भाषते "बचतगट" असे संबोधले जाते. बचत गट ही सिमित कल्पना. या कल्पनेत काही व्यक्ती एकत्र येऊन पैसे गोळा करणे व त्याचा गटातील सदस्यांना एकमेकांच्या मदतीसाठी विनियोग करणे. एवढाच सिमित अर्थ होता. "स्वयंसहाय्यता गट" म्हणजे स्वत:च स्वत:ला मदत करण्यासाठी उभारलेला गट होय. म्हणून ही अधिक विस्तृत संकल्पना झाली. स्वयंसहाय्यता समूहात सर्वसाधारणपणे ‘बचतगट‘ म्हलल्या जाते. म्हणून समूहाचे उद्दिष्ट केवळ बचत करणे एवढेच नसून त्यातून सदस्यांना उत्पादक व उपभोग्य गरजांकरिता कर्ज देऊन सहाय्यता करणे हे असते. त्यामुळे अशा समूहास 'स्वयंसाय्य समूह' म्हणणे अधिक योग्य होईल. "नियमितपणे बचत करून त्यातून आपल्या सदस्यांच्या आर्थिक गरजा भागविणान्या समूहास स्वयंसहाय्यता समूह असे म्हणतात." या गरजा दैनंदिन किंवा उपभोग्य स्वरुपाच्या असतील जसे वैद्यकीय खर्च, सणावाराकरीता होणारा खर्च, लग्न समारंभ, यात्रेकरीता होणारा खर्च, पूर्वी घेतलेल्या सावकारी कर्जाची परतफेड इ. किंवा उत्पादक स्वरुपाच्या गरजा जसे खते बी-बियाणे, किटकनाशके औषधी खरेदी करणे, दुभती जनावरे खरेदी करणे, शेळया मेंढया खरेदी करणे इ. ज्यावेळी समूह सदस्यांच्या उत्पादन कार्यासाठी इतर कार्यासाठी समूहाची बचत अपुरी पडल्यास समूहाला बँक किंवा इतर वित्तीय

संस्थामार्फत कर्जाची व्यवस्था केली जाते.
व्याख्या : महिला आर्थिक विकास महामंडळ (माविम) - "परावलंबनाकडून स्वावलंबनाकडे, स्वावलंबनाकडून परस्परावलंबाकडे जाण्यासाठी स्वेच्छेने, सहमतीने, सामुदायिकपणे बचतीच्या निमित्ताने केलेला प्रवास म्हणजे स्वयंसहाय्यता बचतगट होय."
३.गरज आणि महत्त्व : महिलांच्या विकासासाठी ‘बचतगट एक वरदान’ ठरत असून स्वयंसहाय्यता गटाच्या माध्यमातून महिलांचे सक्षमीकरण आणि त्यांच्या आत्मशक्तीचा विकास होत असून अडथळे दूर करून त्यांच्या समस्या सोडविण्यासाठी महिला स्वयंसहाय्य गट सक्षमपणे कार्ये करीत आहे. त्यांच्या आर्थिक गरजा पूर्ण करण्यासाठी घराघरातील प्रत्येक महिलेला बचतीचे महत्व पटवून देग्याचा प्रयत्न स्वयंसहाय्य गटाच्या माध्यमातून केला जात आहे. "बचतीचा मंत्र महन" या उक्तीप्रमाणे बचतीतून एकजूट, एकजुटीतून शक्ती, शक्तीतून युक्ती म्हणजेच स्वत:मधील अंगभूत गुणांचा साक्षात्कार या स्वयंसहाय्यता गटातील महिलांनी जगाला दाखवून दिला आहे. समस्त महिलांनी एकजुटीतून समर्थ व सक्षम बनवण्यासाठी 'थेंबे थेंबे तळे साचे' या म्हणीचा अर्थ लक्षात घेऊन छोटया छोटया बचतीतून मोठी रक्कम बचत करून या महिला देशाला सामर्थ्यावान बनवत आहेत.

महिला स्वयंसहाय्य गटातील महिला यशस्वी उद्योजक बनत असून समाजाच्या गरजा पूर्ण करण्याचे कार्य करीत आहेत. त्या सामाजिक कार्यात सक्रीय सहभागी होऊन समाजातील वाईट चालीरीती, वाईट प्रथा, अंध्रध्दा, व्यसनमुक्ती, जनजागृती, कुटुंबकल्याण, वृध्दाश्रम, ग्राम स्वच्छता अभियान इ. कार्य करुन सामाजिक विकास घडवून आणत आहेत. समाजातील शिक्षण, आरोग्य, बालविवाह, जलसंधारण, वृक्षारोपन, प्रदुषण, पर्यावरण, व्यसनमुक्ती, ग्रामस्वच्छता इ. सारख्या अनेक समस्या सक्षमपणे सोडविण्याचा प्रयत्न करीत आहे. दाखुंदी, अंधश्रध्दा निवारणासाठी संघटित होऊन आवाज उठवित आहेत. सावकाराकडून होणारे आर्थिक शोषन थांबविणे, गरीब व्यक्तिकडे पाहण्याचा दृष्टीकोन बदलणे, ज्ञानाच्या कक्षा रुंदावणे, महिलांना बँकींग व्यवहाराची माहिती करुन देणे, महिलांच्या आर्थिक, सामाजिक, शैक्षणिक, मानसिक विकास घडवून आणण्यासाठी महिला स्वयंसहाय्यता बचत गटाची अत्यंत आवश्यकता व गरज आहे.

## ૪.संशोधन अभ्यासाचे उद्देश :

१. महिला स्वयंसहाय्यता गटामधून महिलांच्या आर्थिक विकासाचा अभ्यास.
२. महिला स्वयंसहाय्य गटातील कार्यपध्दतीचा अभ्यास
३. महिलांमध्ये स्वयंरोजगार, जनजागृती व राहणीमान अभ्यास

## ५. संशोधन अभ्यासाची गृहितके :

१. महिला स्वयंसहाय्य गट हे महिलांच्या आर्थिक व सामाजिक विकासाचे एक माध्यम होत आहे.
२. महिला स्वयंसहाय्य गटामुळे महिलांमध्ये काटकसर करून परस्पर मदतीची सवय लागते.
३. महिला स्वावलंबी होऊन राहणीमान उंचावते.
६.संशोधन पध्दती : प्रस्तुत संशोधनासाठी वर्णनात्मक व स्पष्टीकरणात्मक संशोधन पध्दतीचा वापर केला आहे. माहितीचे संकलन सर्वेक्षण पध्दतीने प्राथमिक व दुय्यम स्रोतांचा वापर करण्यात आला असून प्राथामिक स्रोतांत प्रश्नावलीच्या सहाय्याने माहितीचे संकलन करण्यात आले आहे. प्रस्तुत संशोधनात ‘नांदेड' शहरातील २५ निवडक महिला स्वंयसहाय्यता बचत गटाची निवड करुन निवडक बचत गटातील १२५ महिला सभासदांचा अभ्यास करण्यात आला आहे.

## १) तथ्य संकलन :

प्रस्तुत संशोधनात तथ्य संकलनासाठी प्राथमिक व द्वितीय स्रोतांचा वापर करण्यात आला आहे. सर्वेक्षण

पध्दतीने प्रश्नावलीचा वापर करुन प्राथमिक माहिती संकलित करण्यात आली आहे. प्राथमिक स्रोताशिवाय माहिती व आकडेवारीच्या संकलनासाठी दुय्यम स्रोतांचाही वापर करण्यात आला आहे.

विविध बँकांचे स्वयंसहाय्यता बचत गटातवरील माहिती पुस्तिका. ‘महिला स्वयंसहाय्यता गट' या संदर्भातील विविध लेखकांची / प्रकाशनांची पुस्तके इ. विविध साप्ताहिके ॅग्रोवन सकाळ, मासिके लोकराज्य, योजना, उद्योजक, लोकप्रभा इ. मधील लेख. विविध वृतपत्रे दैनिक सकाळ, दैनिक लोकमत, दै. प्रजावणी, इ. मधील लेख इ. वापर करण्यात आला.

## ७. संशोधनाच्या मर्यादा :

१. हा अभ्यास नांदेड शहरातील काही विशिष्ट गटापुरताच मर्यादित राहील.
२. हा अभ्यास नमुना निवड पध्दतीद्वारे करण्यात येईल.
३. हा अभ्यास इ.स. २००६-२००७ ते इ.स. २००७-२००८ या काळापुरताच मर्यादित राहील.

निवडक महिला स्वयंसहाय्य गटांचा अभ्यास :-
सारणी क्र : १ - निवडक महिला स्वयंसहाय्यता गटांचे उद्देश दर्शविणारी सारणी.

| अ.क्र. | उद्देश | संख्या | शेकडेवारी |
| :--- | :--- | :--- | :--- |
| १ | महिलांचा विकास करणे | २२ | ८८ |
| २ | महिलांचे दारिद्रय दूर करणे | २२ | ८८ |
| ३ | महिलांना स्वावलंबी बनविणे | २५ | १०० |
| ४ | महिलांत जनजागृती निर्माण करणे | $८$ | ३२ |
| $५$ | महिलांचे सक्षमीकरण करणे | १९ | ७६ |
|  | एकूण | २५ | १०० |

स्रोत : प्राथमिक सर्वेक्षण
विश्लेषण : वरील सारणीवरुन असे दिसून येते की, २२ ( $88 \%$ ) गटोचा उद्देश हा महिलांचा विकास करणे असा आहे. महिलांचे दारिद्रय दूर करणे असा उद्देश २२( $88 \%$ ) गटांचा असल्याचे दिसते. २५ (१००\%) गटांचा उद्देश हा महिलांना स्वावलंबी बनविणे असा आहे तर महिलांमध्ये जनजागृती निर्माण करणे असा उद्देश ८ (३२\%) गटांमध्ये दिसतो. महिलांचे सक्षमीकरण करणे असा उद्देश १९ (७६\%) गटांचा दिसतो.

यावरुन असे दिसून येते की, महिला स्वयंसहाय्यता गटांच्या उद्देशांपैकी महिलांना स्वावलंबी बनविणे हा उद्देश सर्वच गटांचा आहे. तर महिलांच विकास करणे, महिलांचे दारिद्रय दूर करणे असा उद्देश बहुतांश गटांचा आहे.
सारणी क्र : २ — महिला स्वयंसहाय्यता गटाच्या नियमावलीची शीर्षके

| अ.क्र. | नियमावलीची शीर्षके | संख्या | शेकडेवारी |
| :---: | :---: | :---: | :---: |
| १ | सभासद विषयक नियम | २५ | १०0 |
| २ | स्वयंसहाय्यता गटाविषयक नियम | २५ | 900 |
| ३ | गटाच्या सभेविषयी नियम | २ 4 | 900 |
| $\gamma$ | कर्जव्यवहाराचे नियम | २५ | 900 |
| 4 | इतर नियम | 24 | 900 |
|  | एकूण | 24 | 900 |

स्रोत : प्राथमिक सर्वेक्षण

विश्लेषण ：वरील सारणीवरुन असे दिसून येते की，सर्वच २५（100\％）गटांच्या नियमावलीत सभासद विषयक नियम，स्वयंसहाय्यता गटाविषयक नियम，गटाच्या सभेविषयी नियम，कर्जव्यवहाराचे नियम，इतर नियम आहेत．
सारणी क्र ：३ — महिला स्वयंसहाय्यता गटाच्या सभासदांच्या आर्थिक विकासाची पूर्तता

| अ．क्र． | आर्थिक विकासाची पूर्तता | संख्या | शेकडेवारी |
| :---: | :---: | :---: | :---: |
| $\bigcirc 9$ | होय | ९१ | ७२．८० |
| －२ | नाही | ३४ | २७．२० |
|  | एकूण | १२५ | १00．00 |

स्रोत ：प्राथमिक सर्वेक्षण
विश्लेषण ：
वरील सारणीवरुन असे दिसून येते की，महिला स्वयंसहाय्यता गटाच्या सभासदांचा आर्थिक विकास होतो असे ९१（ $72.80 \%$ ）प्रतिसादकांनी मत नोंदविले आहे तर आर्थिक विकास होत नाही असे ३४（ $27.20 \%$ ）प्रतिसादकांनी मत नोंदविले आहे．

यावरून असे स्पष्ट होते की，सर्वाधिक म्हणजे ९१（72．80\％）महिला प्रतिसादकांनी महिला स्वयंसहाय्यता बचत गटाच्या माध्यमातून आर्थिक विकास होतो असे मत व्यक्त केले आहे．
सारणी क्र．४－महिला स्वयंसहाय्यता गटाच्या सभासदांच्या आर्थिक विकासाचे स्वरुप

| अ．क्र． | आर्थिक विकासाचे स्वरुप | संख्या | शेकडेवारी |
| :---: | :---: | :---: | :---: |
| $१$ | स्वयंरोजगारातून उत्पन्न | ६६ | ५२．८० |
| 2 | उद्योगातून उत्पन्न | ६૪ | 49.20 |
| ३ | बचतीतून उत्पन्न | くく | ७०．૪० |
| $\gamma$ | काटकसरीतून उत्पन्न | q०\％ | く३．२० |
|  | एकूण | १२५ | १00．00 |

स्रोत ：प्राथमिक सर्वेक्षण
विश्लेषण ：वरील सारणीवरुन असे दिसून येते की，महिला स्वयंसहाय्यता गटाच्या सभासदांच्या आर्थिक विकासाचे स्वरुप पुठीलप्रमाणे आहे．

६६（ $52.80 \%$ ）प्रतिसादकांच्या मते स्वयंगोजगारातून उत्पन्न मिळते．
६४ $(51.20 \%)$ प्रतिसादकांच्या मते उद्योगातून उत्पन्न मिळते．
६४ $(70.40 \%)$ प्रतिसादकांच्या मते बचतीतून उत्पन्न मिळते．
१०४（ $83.20 \%$ ）प्रतिसादकांच्या मते काटकसरीतून उत्पन्न मिळते．
यावरुन असे स्पष्ट होते की，सर्वाधिक जास्त म्हणजे १०४ $(83.20 \%)$ प्रतिसादकांच्या मते काटकसरीतून उत्पन्नाची वाढ होते．
सारणी क्र ：५－महिला स्वयंसहाय्यता गटाच्या सभासदांच्या आर्थिक स्वावलंबनाचे अस्तित्व

| अ．क्र | आर्थिक स्वावलंबनाचे अस्तित्व | संख्या | शेकडेवारी |
| :--- | :--- | :--- | :--- |
| $\circ १$ | होय | ८७ | ६९．६० |
| $\circ २$ | नाही | ३८ | ३०．४० |
|  | एकूण | $१ २ ५$ | $१ ० 0 . ० ०$ |

स्रोत : प्राथमिक सर्वेक्षण
विश्लेषण : वरील सारणीवरुन असे दिसून येते की, एकूण प्रतिसादकांपैकी ८७ ( $69.60 \%$ ) प्रतिसादकांनी ते प्रतिसादक आर्थिकदृष्ट्या स्वावलंबी असल्याचे नमूद केले आहे. तर ३८ (30.40\%) प्रतिसादकांनी आर्थिकदृष्ट्या स्वावलंबी बनले नसल्याचे सांगितले आहे.

यावरुन असे स्पष्ट होते की, सर्वाधिक ८७ $(69.60 \%)$ प्रतिसादक आर्थिकदृष्ट्या स्वावलंबी झाले आहेत.
सारणी क्र : ६ — महिला स्वयंसहाय्यता गटाच्या सभासदांच्या जनजागृती कार्याचे अस्तित्व

## अ.क्र.

- १
- २

जनजागृती कार्याच अस्तित्व
होय
नाही
एकूण

| संख्या | शेकडेवारी |
| :--- | :--- |
| १०९ | ८७.२० |
| १६ | १२.८० |
| १२५ | १००.०० |

स्रोत : प्राथमिक सर्वेक्षण
विश्लेषण : वरील सारणीवरुन असे दिसून येते की, महिला स्वयंसहाय्यता गटाच्या माध्यमातून जनजागृती होते असे १०९ $(87.20 \%)$ प्रतिसादकांनी मत नोंदविले आहे तर १६ $(12.80 \%)$ प्रतिसादकांनी नाही असे मत नोंदविले आहे.

यावरुन स्पष्ट होते की, सर्वाधिक म्हणजे १०९ $(87.20 \%)$ प्रतिसादकांच्या मते महिला स्वयंसहाय्यता गटाच्या माध्यमातून जनजागृती होते .
सारणी क्रः ७ - महिला स्वयंसहाय्यता गटाच्या सभासदांच्या जनजागृती कार्याच स्वरुप

| अ.क्र. | जनजागृती कार्याचे स्वरुप | संख्या | शेकडेवारी |
| :--- | :--- | :--- | :--- |
| १ | वाइट प्रथांना आळा घालणे | ७४ | ५९.२० |
| २ | जातीभेद दूर करणे | ७७ | ६१.६० |
| ३ | अंधश्रध्दा दूर करणे | ६९ | ५५.२० |
| $\gamma$ | स्वच्छता, आरोग्य वृक्षारोपण, जलसंरक्षण | ७० | ५६.०० |
|  | इ. उपक्रम घेणे |  |  |
| ५ | जनजागरण - बालविवाह | ६४ | ५१.२० |
| ६ | व्यसनमुक्ती | ७८ | ६२.४० |
|  | एकूण | १२५ | १००.०० |

स्रोत : प्राथमिक सर्वेक्षण
विश्लेषण : वरील सारणीवरुन असे दिसून येते की, जनजागृती करण्यासाठी वाईट प्रथांना आळा घालावा असे ७४ ( $59.20 \%$ ) सभासदांनी सांगितले. ७७ ( $61.60 \%$ ) सभासदांनी जातीभेद दूर करावे असे सांगितले. अंधश्रध्दा दूर करणे असे ६९ $(55.20 \%)$ सभासदांनी सांगितले. स्वच्छता, आरोग्य, वृक्षारोपण, जलसंरक्षण इ. उपक्रम घेणे असे ७० ( $56 \%$ ) सभासदांनी सांगितले. बालविवाहाबाबत जनजागरण करावे असे ६४ (51.20\%) सभासदांनी सांगितले. व्यसनमुक्तीचा उपाय ७८ $(62.40 \%)$ प्रतिसादकांच्या मते स्वयंसहाय्यता गटाच्या जनजागृतीमुळे व्यनाधीनतेस आळा बसला तसेच ७७ $(61.60 \%)$ प्रतिसादकांच्या मते जनजागृतीच्या फलस्वरुप जातीभेद नाहीसा होतो.

## ८. निष्कर्ष :

१. बहुतांश बचत गटाचा उद्देश महिलांना स्वावलंबी बनवणे, त्यांचा विकास करणे, दारिद्रय दुर करणे हाच आहे.
२. सर्वच गटाला सभेविषयक नियम, गटविषयक नियम, कर्जव्यवहाराचे नियम, अध्यक्ष, सचिव, सभासद विषयक नियम आहेत.
३. सर्वच गटात नियमित सभा घेणे, सभेचे इतिवृत्त लिहिणे, सभांची वेळ दिनांक ठरविणे, गटाचे रेकॉर्ड ठेवणे, सभेचे संचलन करणे ही कार्य केली जातात.
૪. सर्वाधिक म्हणजे ९१ (72.80\%) महिला प्रतिसादकांची महिला स्वयंसहाय्यता बचत गटाच्या माध्यमातून महिलांच्या आर्थिक विकास होतो असे मत व्यक्त केले. (क्र. १ चे गृहितक सिध्द झाले)
4. सर्वाधिक म्हणजे १०४( $83.20 \%$ ) प्रतिसादकांच्या मते काटकसरीतून उत्पन्नांची वाढ होते. (क्र.२ चे गृहितक सिध्द झाले)
६. सर्वाधिक ८७ ( $69.60 \%$ ) प्रतिसादकांच्या मते महिला आर्थिकदृष्ट्या स्वावलंबी होत आहेत. असे मत व्यक्त केले. (गृहितक क्र.३ सिध्ध झाले.)
७. सर्वाधिक म्हणजे ८६ ( $68.80 \%$ ) प्रतिसादकांच्या मते महिला स्वयंसहाय्यता गटातील सभासदांमध्ये सहकार्याची भावना वाढीस लागली असे मत नोंदवले.
८. सर्वाधिक म्हणजे १०९ ( $87.20 \%$ ) प्रतिसादकांच्या मते महिला स्वयंसहाय्यता गटाच्या माध्यमातून जनजागृती होते.
९. सर्वीधिक म्हणजे ७८ ( $62.40 \%$ ) प्रतिसादकांच्या मते स्वयंसहाय्यता गटाच्या जनजागृतीमुळे व्यसनाधिनतेस आळा बसला असे मत व्यक्त केले.
१०. सामुदायिक उपक्रमात प्रतिसादकांच्या मते सर्वाधिक उपक्रम ७४ ( $59.20 \%$ ) प्रमाण आरोग्य शिबीराचे तर सर्वात कमी २८ ( $22.40 \%$ ) खेळाच्या आयोजनाचे कार्यक्रम घेतले जातात असे मत नोंदवले.

## ९. शिफारसी:

निष्कर्षाच्या पार्श्वभूमीवर काही महत्वाच्या शिफारशी खालीलप्रमाणे आहेत.
१. बचतगटाच्या कार्यात तळागाळातील महिलांचा समावेश मोठया प्रमाणावर होणे आवश्यक आहे.
२. बचत गटाच्या कार्याबाबत निरक्षर महिलांचे जाणीव निर्माण होणे आवश्यक आहे.
३. बचत गटाच्या कार्यात बँकिंग क्षेत्रातील कर्मचान्यांचा सक्रिय सहभाग होणे आवश्यक आहे.
४. बचत गटाचे कार्य सक्रिय उद्योगाच्या स्वरुपात चालु राहणे आवश्यक आहे
4. बचत गटाने कोणते उद्योग सुरु करावेत याविषयीचे मार्गदर्शन करण्यासाठी व गावाचा, शहराचा वा पर्यावरणाचा अभ्यास होणे आवश्यक आहे. त्यासाठी निष्णात तज्ञांची समिती स्थानिक स्तरांवर गठीत करण्यात यावी.
६. बचत गटांना लेखा पध्दती व हिशोब ठेवण्याचे ज्ञान करुन देणे आवश्यक आहे व त्यासाठी निष्णात तज्ञांची समिती स्तरांबर गठीत करण्यात यावी.

## संदर्भ ग्रंथ :

१. माहिती पुस्तिका, जिल्हा ग्रामीण विकास यंत्रणा, नांदेड, स्वर्णजयंती ग्राम स्वरोजगार योजना आणि स्वयंसहाय्यता समूह.
२. श्री. टी. एफ. थकेकरा, व्यवस्थापकीय संचालक, माविम, सहयोगिनी (कार्यकर्ती), माविम, मुंबई.
३. श्री. मोहन वैद्य, महिला बचत गट हस्तपुस्तिका, प्रकाशन विश्व पुणे, २००५.
૪. यशदा, य.च. विकास प्रकाशन प्रबोधिनी, पुणे.

## यशवंत चव्हाण : राष्ट्रीय स्तरावरील कार्य

(संरक्षण / अर्थ / परराष्ट्र धोरण उपपतंप्रधान आणि वित्त आयोगाचे अध्यक्ष तसेच कॉग्रेस पक्ष पातळीवरील कार्य)
प्रा. सूर्यकांत माधवराव सांभाळकर: राज्यशास्र विभाग, वि.पा.शि.प्र.मं.सं.,कला, वाणिज्य व विज्ञान महाविदयालय, कन्नड.

सातारा जिल्हातील देवराष्ट्र या गावी १२ मार्च १९१४ रोजी एका शेतकरी कुटूंबात यशवंतराव चव्हाण यांचा जन्म झाला. लहानपणापासून त्यांच्यावर राष्ट्रभक्तीचे संस्कार झालेले होते. मातोश्री विठाबाई यांच्या धीरगंभीर व्यक्तिमहत्वाने त्यांचे जीवन घडत गेले व पुढे नावाप्रमाणेच त्यांनी इतिहास घडविला ते केवळ राजकारणीच नवहते तर बिनिचे ललित लेखकही होते. शिवनेरीच्या नौबती, सहयाद्रीचे वारे, ऋणानुबंध, युगांतर, कृष्णाकाठ इत्यादी त्यांच्या साहित्यकृती प्रसिध्द आहेत.

आपल्या राजकीय जीवनात महाराष्ट्राचे पहिले मुख्यमंत्री येथपासून केंद्रात संरक्षणमंत्री, गृहमंत्री, वित्तमंत्री, परराष्ट्रमंत्री पहिला अधिकृत विरोधी पक्ष नेता आणि शेवटी उपपंतप्रधान अशी यशाची शिखरे हस्तगत करणारे यशंवतराव विविध पदावर असतांना त्यांनी कशाप्रकारे त्या - त्या पदांना न्याय दिला व जनसेवा केली हे पाहणे म्हणजेच त्यांच्या राष्ट्रीय स्तरावरील कार्याची उजळणी करणे होय.
गृहमंत्री (१४ नोन्हेंबर १९६६ ते १९६८)
गोवध बंदी आंदोलन : यशवंत चव्हाणांना गृहमंत्रीपदाच्या सुरुवातीच्या महिन्यात गोवधबंदी आंदोलनास तोंड द्यावे लागले. याविषयी ते म्हणाले, "आता निवडणुका आल्या आहेत, स्वाभाविकपणे जनसंघ या आंदोलनाचे नेतृत्व करणार, मला याविषयी शंका नाही." या आंदोलनामुळे जातीय दंग्यांना निमित्त मिकेल. जातीय भावना चेतवल्या जातील हे आंदोलन गोहत्याबंदीसाठी असले तरी त्याबाबत एक गोष्ट लक्षात ठेवावयास हवी ती म्हणजे ही चळवळ सरकार विरोधी आहे. मी असे म्हणत नाही की या आंदोलनाच्या संघटकांनी ही चळवळ मुस्लीम विरोधी भावनेने केली. पण सर्व प्रवृत्ती प्रबळ हिंदुत्वाची होती. पण ज्या पध्दतीने हे आंदोलन चालविण्यात आले त्यावरुन यामागे त्याचा हेतू अशुध्द असला पाहिजे म्हणूनच ही चळवळ जातीय होती.

पाच दिवसांनी गोवधबंदीच्या मागणीस पाठींबा दर्शविण्यासाठी पुरीच्या शंकराचार्यांनी दिल्लीत आमरण उपोषण करण्याची घोषणा केली. यामुळे धार्मिक भावना भडकणार होत्या, तेव्हा चव्हाणांनी एक धाडसी निर्णय घेतला व त्यांनी शंकराचार्यांना दिल्लीतून पॉडेचरीस हलविले.
पंजाब प्रश्न : आणखी एक पेचप्रसंगाची माहिती चव्हणांनी दिली ती म्हणजे चंदीगड पंजाबला मिळावे म्हणून संत फतेसिंगांनी दिलेला उपोषणाची व आत्मसमर्पणाची धमकी, याही काळात चव्हणांनी सत्वपरीक्षा झाली पण हेही संकट टळले तेव्हा दिल्लीच्या इंडीयन एक्सप्रेसने लिहिले, गृहमंत्री म्हणून चव्हाणांबद्दल झालेले संसदेचे मत चांगले होते. जी स्फोटक परिस्थिती चव्हाणांनी ज्या थंडपणे व कौशल्याने हाताळली तीने कसलेल्या मंत्रांचीसुध्दा गाळण उडाली असती.
याच कालखंडामध्ये दिल्लीतील पोलीसांनीही आंदोलन केले तेन्ह सैन्य बोलावून 400 पोलिसांना अटक केली व

पोलिसांच्या मागण्यासाठी एक चौकशी मंडळ नेमले त्यांच्या काही मागण्या लगेच मान्य केल्या.
नक्षलवादी चळवळ : १९६७मध्ये आणखी एक मुलभूत समस्या उभी राहिली. नक्षलवादीमध्ये शेतकन्यांनी जमीनीचा ताबा घेतला. जून १९६७ मध्ये पश्चिम बंगालच्या मुख्यमंत्र्यांनी केंद्र सरकारला कळविले, ही चळवळ चीनवादी असल्याने अनाधिकृतरित्या मुख्यमंत्र्यांनी केंद्र सरकारला कळविले. धर्मवीर त्यावेळी पश्चिम बंगालचे राज्यपाल होते. त्यांनी पश्चिम बंगालचे मंत्रीमंडळ २१ नोक्हेंबर १९६७ मध्ये बडतर्फ केले. त्यातच दिनांक $२ १$ ला पश्चिम बंगाल विधीमंडळाच्या सभापतींनी अजय घोष यांचे सरकार घटनाबाह्य आहे असा अभिप्राय देवून विधिमंडळाचे अधिवेशन बेमुदत स्थगित केले. चन्हाणांनी दि. ०३ नोक्हेंबर रोजी लोकसभेत निवेदन करुन राज्यपालांचा मंत्रीमंडळ बडतर्फीचा निर्णय हा देशहिताच्या व लोकशाह्विच्या रक्षणाच्या हेतून घेण्यात आल्याचे जाहिर केले. ૪ फेबुुवारी १९६८ ला पुन्हा विधी मंडळाचे अधिवेशन भरले तेव्हा सभापतीनी ते बेमुदत स्थगित केले.
केंद्राचे नक्षलवादासंबंधीचे धोरण काय होते असे विचारता चव्हाण म्हणाले आम्ही नक्षलवादयांच्या चळवळीची आर्थिक व सामाजिक कारणमिमांसा करण्याचा प्रयत्न केला. मी अधिक मुलगामी पध्दतीने या पश्नाचा विचार करु इच्छीत होतो. राज्यसरकार अर्थातच तातडीच्या प्रश्नाचा विचार करतात पण आम्हाला केंद्रसरकारमध्ये त्याचा राष्ट्रीय भूमिकेतून विचार करावा लागतो व त्यातून मार्ग काढावा लागतो. राज्य सरकारला हे प्रश्न सोडविण्यासाठी काही मदत करता येईल का हेही केंद्र सरकारला पाहावयाचे असते.
हिंदू-मुस्लिम दंगल : चव्हाणांची कसोटी पाहणारा दुसरा प्रश्न याच काळत तीव्र झाला तो म्हणजे हिंदू मुस्लिमांच्या जातीय दंगलीचा प्रथम श्रीनगर, त्यानंतर बिहारमध्ये रांची, आंध्र, उत्तरप्रदेश, गुजरात, महाराष्ट्र यासर्व राज्यात दंगली झाल्या. यासंबंधी आपले मत व्यक्त करतांना चव्हण म्हणाले, "मुख्यतः राजकीय पक्षच एक जमात किंवा जात यांना चिथावणी देतात त्यामुळे या दंगली होतात. १९६० नंतर राजकीय पक्षांनी आपल्या राजकीय स्वार्थासाठी धार्मिक भावना चिथावल्या आहेत. म्हणून हे दंगे थांबविण्याचा एकच मार्ग म्हणजे राजकीय पक्षांना सत्ता मिळविण्याचे साधन म्हणून धर्माचा वापर करण्यास मनाई करणे. जनसंघ हा जातीय भावना वाढविण्यास मुख्यतः जबाबदार आहे. दोन जमातीमधील परस्परांना समजून घेण्याची प्रक्रियाच बंद झाली आहे. त्यामुळे मनात असलेली कटुता वारंवार वर येते."
"गुहमंत्री म्हणून धोरण ठरवितांना मी दोन सुगे ठरविली होती, मला वाटते की गृहमंत्री म्हणून कणखरपणा दाखविला पाहिजे. पण तो दाखवायचा असेल तर प्रश्नांची योग्य रीतीने उकल करुन घेण्यासाठी लागणारा समजूतदारपणाही दाखविला पाहिजे. कणखरपणा म्हणजे हेकटपणा नव्हे तसेच तार्कीक विचार प्रदर्शन केवळ तत्वचर्चेला ठिक दिसते पण व्यवहाराची कसोटी लागली की, त्यातल्या अडचणी दिसायला लागतात. लोकशाहीत तर हा व्यवहार असंख्य लोकांना बरोबर घेवून करावयाचा असतो."
अर्थमंत्री : धोरण सुत्रे : अर्थमंत्रीपदाच्या चार वर्षाच्या कारकीर्दोचे सिंहावलोकन करु या, अर्थमंत्री म्हणून आपली धोरण सुत्रे कोणती होती ? तेव्हा ते म्हणाले, "माझी अर्थसंकल्पावरील पहिल्या भाषणात मी माइया करविषयक धोरणाची त्रिसुत्री सांगितली होती. पहिले सुत्र प्राप्तीतील विषमता कमी करणे, दुसरे कर योजनेचा पाया विस्तृत करणे आणि तिसरे कर आकारणी व कर वसुली यांची प्रशासन यंत्रणा अधिक कार्यक्षम करणे.

प्राप्तीतील विषमता कमी करण्याचा अर्थमंत्यांच्या हातातील उपाय म्हणजे कर - योजना, काळा पैस,

काळया पैशातून होणारा खर्च व काळया पैशाच्या कमाईचे विविध मार्ग यावर नियंत्रण ठेवणे. त्यातलाच एक भाग. आज काळापैसा वेगवेगळया रुपात वावरतो आहे. तो जमीनीत आहे. सोन्यात गुंतवलेला आहे, बँकातील बेनामी ठेवीत आहे. एका हप्त्यात आयुर्विमे उतरले जातात. ऐषआरामी खर्च, चैनीची वस्तू, परदेशी मालाची खरेदी यांच्याव्दारे खर्च होतो. तो बराचसा काळा पैसाच कर चुकवून हाती राहतो तोही काळा पैसाच ठरतो. काळया पैशाची गुंतवणूक होत असते. तीही विविध मार्गांनी गुंतवणूकीतून निर्माण होतो तो काळा पैसाच असे हे वर्तुळ फिरत आहे, तो या देशात नेमका किती आहे हे सांगणे कठीण आहे. कारण सोने, दागिने, हिरे-माणके, उदयोगोपयोगी कच्चा माल रोजच्या खपाच्या वस्तू, शेअर्स आदी अनेक गोष्टीचा नेमका अंदाज येतच नाही. वांछु समितीने ज्याच्यावरचा प्राप्तीकर चुकविला जातो त्य मिळकतीचा अंदाज १९६८-६९ साली १४०० कोटी रुपयाचा केला होता. डॉ रांगणेकरांनी त्याच वर्षाचा अंदाज २८३३ कोटी रुपये केला आहे.

प्राप्तीकर चुकविण्यान्यांची पाहणी चालू आहे. या सर्वामध्ये आज देशात जी महत्वाची मोहीम चालू आहे ती म्हणजे स्मगलर्सना पकडण्याची हीच मोहीम साठेबाजांविरुद्द चालू होईल. या सर्व प्रशासकीय उपायांचा संकलित परिणाम म्हणजे काळया पैशाला आलेले स्थैर्य किंबहूना प्रतिष्ठा जाईल. त्यांना हादरा बसेल. प्रत्यक्ष होणान्या आर्थिक फायदयाइतकेच या सामाजिक तिरस्कारास बळी ठरतील. सरकार काही ठाम निर्णय घोवून पाऊले उचलेल यामुळे जनतेमध्ये निर्माण होणान्या विश्वासाला अधिक महत्व आहे असे मी मानतो."
"सामाजिक न्यायाची जाणीव अपुरी आहे. सामाजिक न्यायाची जाणीव निर्माण झाली तरी त्यासाठी प्रत्येक नागरीकाला जी आतंरीक व सामाजिक शिस्त लागते ती नसेल तर या जाणीवेचा काही उपयोग होणार नाही. मला असे दिसते आहे की, आपण सामाजिक न्यायाच्या किंवा समाजवादाच्या जाणिवेने काही राजकीय निर्णय घेतले, काही संस्था, काही पध्दती निर्माण केल्या आहेत. पण आपण समाजाला जेवढे श्रम देतो जेवढे उत्पादन देतो त्यापेक्षा जास्त काही सरकार वा समाज आपणाला देईल ही आपली अपेक्षाच आपण टाकून दिली पाहिजे. चीनने राष्ट्र उभे केले ते या सामान्य माणसाच्या ताकदीवर-निष्ठेवर. अगदी साधे उदाहरण साखरेचे घेवू. आपल्य जीवनात गहू, तांदूळ, कापड यांच्या इतकी साखर आवश्यक आहे का ? ती काही प्रमाणात कमी वापरुन ज्या देशात आपणाला जास्त भाव मिळेल तेथे पाठविली तर कदाचित आपल्या देशाचा आर्थिक फायदा होईल. रशियाने अनेक वस्तू स्वतःच्या नागरीकांना नाकारल्या, चीनने असेच कडक सामाजिक नियमन केले. त्यातूनच या राष्ट्रांचे अर्थकारण समर्थ व स्वावलंबी बनले आपल्यापुठे प्रश्न असा आहे की लोकशाहीमध्ये आपण ही सामाजिक शिस्त ही कार्यक्षमता आणू शकू का केवळ राजकीय सॅक्शन येथे अपुरे पडते व्यापक समाजहिताची बुध्दी व त्यागाची बिनतक्रार सिध्दता यांची आज गरज आहे."

शेतक्यांनी अपार कष्ट करुन नगदी पिकांचे उत्पादन वाढविले तर त्याचा परिणाम काय होतो ? एकदम वस्तुंचे बाजारभाव खाली येतात. आणि परिणामी शेतकन्याला नुकसान सहन करावे लागते. परंतु हाच शेतमाल कच्चा माल म्हणून कारखान्यात गेला की त्याची किंमत एकदम चढू लागते. उत्पादक आणि ग्राहक यांची पिळवणुक करण्याची घावूक बाजारातील ही नेहमीचीच रीत झालेली आहे. उत्पादकांनी राबायचे आणि त्यांच्या कष्टाचा फायदा पैसेवाल्या दलालांनी घ्यायचा ही अनिष्ट पध्दत यापुढे तरी बंद झाली पाहिजे. सरकारनेच सर्व अन्नधान्य व्यापार आपल्या हातात घेतला की शेतकप्यालाही योग्य भाव मिळेल आणि ग्राहकांचीही लुबाडणुक होणार नाही. ग्रामीण भागातील अर्थकारणाचा विचार करतांना शेतकरी उपाशी राहणार नाही ही पहिली खबरदारी

घेतली पाहिजे. त्याप्रमाणे साठेबाजी करुन कृत्रिम टंचाई निर्माण करण्याचा व लोकांकडून भरमसाट भाव वसूल करण्याचा कटही उधठ्न लावायला हवा."
"मोठे जमीनदार आणि शेतकरी यांच्यामध्ये असंतोष धुमसत आहे. तो वेळीच नाहीसा केला नाही तर ग्रामीण हिंसाचाराचे थैमान निर्माण होईल आणि हरीत क्रांतीचे सारे फायदे नाहीसे होवून जायला वेळ लागणार नाही. म्हणून जमीनवाटपाच्या प्रश्नाची ताबडतोब दखल घेतलीच पाहीजे याबाबतीत दिरंगाई वा चालढकल चालणार नाही"
संरक्षण मंत्री :
यशवंतराव चन्हणांनी भारत सरकारात महत्वाची गृह, अर्थ व परराष्ट्रसंबंध ही चार अत्यंत महत्वाची खाती समर्थपणे सांभाळली व उत्कृष्ट प्रशासक व पेचप्रसंगात नेतृत्व करणारे कार्यक्षम मंत्री म्हणून स्वतंत्र भारताच्या प्रशासकीय इतिहासात स्थान मिळविले.

चव्हणांनी सरंक्षण खात्याची जबाबदारी स्विकारल्यावर अल्पावधीतच अनेक समित्यांची स्थापना करण्यात आली. सरंरक्षणविषयक समस्यांचे सखोल परिक्षण करण्याची कामगिरी त्यांच्यावर सोपविण्यात आली. पतंप्रधानांच्या अध्यक्षतेखाली व राष्ट्रीय संरक्षण समितीचाही समावेश असणारा एक आणिबाणी समिती यापुर्वीच अस्तित्वात आलेली होती. संरक्षण समितीने सेना-व्यवहार समिती नावाची एक उपसमिती नेमलेली होती. जनरल थिम, जनरल थोरा इ. प्रमुखांच्या व निवृत्त सेनादलप्रमुखांचा तिच्यात समावेश होता. चव्हाण म्हणतात, "यातील अनेक समित्यांचा उद्देश सरंक्षणविषयक विचाराला चालना देणे आणि आजवर सैन्यदलामध्ये अभावानेच दिसून येणारी जनसंपर्काची प्रभावी यंत्रणा प्रस्थापीत करणे हा होता." त्यांचे असे मत होते की, संरक्षण समिती ही केवळ लष्करी बाब नसते ती सैनिकी, राजकिय आणि आर्थिक अशा तिहेरी स्वरुपाची घटना असते. देशातील उदयोगधंदे आणि सेना यांच्यातील सुसूत्रीकरणाचे महत्व त्यांनी सभासदांना प्रतिपादन केेले आणि सर्वसामान्य जनतेच्या मनात सेनादलाच्या भूमिकेविषयी एक नवी जाणीव निर्माण केली. सेनादलांचे पुनर्षटन करण्याच्या चव्हाणांच्या या प्रयत्नांचे वर्णन ब्रिगेडियर दळवी असे करतात. "मेनन यांच्या कारकिर्दीत गेलेले तडे भरुन काढण्याचे काम चव्हाणांनी सुरु केले."

संरक्षण मंत्री म्हणून जेव्हा यशवंतराव चव्हण यांनी सुत्रे हाती घेतली तेव्हा भारताचे चीनशी युध्द सुरु होते. त्याचा संदर्भ देत आपल्या भाषणात यशवंतराव चव्हाण म्हणाले होते की, लढाईसाठी ज्यावेळी देश तयारी करतो त्यावेठी मनगट लोखंडासारखे बळकट करावे लागते. त्याचप्रमाणे मनही लोखंडासारखे बळकट करावे लागते. आम्ही आमच्या जुन्या लढायांच्या कहाण्या ऐकतो. पानिपतची लढाई आम्ही हरलो. तेथील कहाण्या सांगतांना आमची लाख बांगडी फुटली असे आमच्याकडील शाहीर सांगतात अशा बांगडया या युध्दातही फुटतील त्यासाठी आपण तयारी ठेवली पाहिजे. युध्दकाळातील जीवन हे कारुण्यमय जीवन आहे. दु:खी जीवन आहे. पण या करण्याच्या पाठीमागे एक प्रकारचा स्वाभिमान आहे. हे दुःखी जीवन आपण स्वतः पत्करले आहे. ही आपली सत्वपरीक्षा आहे. शब्द आपण सहज बोलून जातो. पण प्रसंग पडला तर सत्वपरीक्षेकरीता हवा तो त्यागही करावा लागतो. सत्वपरोक्षेचा हा काळ या देशाच्या इतिहासात आज आलेला आहे. तो किती काळ चालणार आहे. हे मला सांगता येणार नाही. पण लढाईवर जाणान्या सैनिकांच्या मनात एक निर्णय पक्का असतो. कदाचित पहिली दुसरी लढाई आपण हरु पण सर्वात महत्वाची लढाई आपण जिंकूच जिंकू निकालाची ही जी लढाई

असते ती खरी अखेरची लढाई , ही अखेरची लढाई जो जिंकतो तो नेता बनतो. अशाप्रकारे देशातील जनतेला युध्दात जिकण्याचा विश्वास यशवंतराव देतांना दिसतात.

ठाणे या शहरातील भाषणामध्ये बोलतांना यशवंतराव म्हणाले होते की, हिंदूस्थानबाबत चीनची आणि पाकिस्तानची जी भूमिका आहे. तोच अर्थ काय हिंदूस्थानसंबंधीचे त्यांचे मत काय आहे. हिंदूस्थानच्या बाजुने विचार करतांना पाकिस्तान आणि चीनचे मनोव्यापार काय आहेत हे समजून घेण्याचा जसा आम्ही प्रयत्न करतो तसेच हिंदूस्थानचे मनोव्यापार जाणून घेण्याचा प्रयत्न चीन आणि पाकिस्तानही करीत असतील.

त्याचा एकच अर्थ आहे तो म्हणजे हिंदूस्थान हा एक फुटणारा देश असून या देशामध्ये इतके कठीण प्रश्न आहेत की, राष्ट्र म्हणून ते राष्ट्र राहूच शकणार नाही. असे हे आपल्या देशासंबंधीचे त्यांचे निदान आहे. शत्रुलासुध्दा आपल्यसंबंधी काय वाटते हे आपण समजुन घेतले पाहिजे आणि म्हणून मी आपणास सांगु इच्छितो की सरंक्षणाची तयारी सैन्य, विमानतळ, नौदल, करीत राहतीलच परंतु त्याचबरोबर अत्यंत मुलभूत स्वरुपाचा प्रयत्न या देशात तुम्हा आम्हाला करावयास पाहीजे आणि तो म्हणजे या देशाचे मनोबल वाठविण्याचा त्याची प्रचिती खन्या अर्थाने हा देश एकजीव झाला एक जीनसी झाला. एकात्म झाला हा अनुभव आपल्या शत्रुंनाही आला पाहीजे तरच आपले राष्ट्र, राष्ट्र म्हणून पुढे जाईल.

१९४१ साली यशवंतरावांची जिल्हा कॉग्रस अध्यक्ष म्हणून निवड झाली ते आत्मचरित्रात म्हणतात, "मी जिल्हा कॉग्रेसचा अध्यक्ष या नात्याने काम पाहत होतो. आणि योगायोगाने त्याचवेळी मी कायदयाची शेवटची परीक्षा देवून एक-दोन महिने झाल्यानंतर माझे मित्र कामेशंकर, के.डी. पाटील यांचा निरोप आला की, आपण आपल्या सनदा हायकोर्टतून आणण्यासाठी मुंबईला जावू या मी त्यांना कळविले की, जिल्द्यात महत्वाच्या घटना घडत आहेत. तेव्हा तुम्हीच कन्हाडला या म्हणजे आपल्याला काही बोलता येईल मी तसे के.डी. पाटील यांना बोलाविले.

जिल्हा अध्यक्षपदी काम करतांना त्यांच्या कार्याची दखल घेतली जावू लागली. ते म्हणतात १९३७ सालच्या कौन्सील निवडणुकीच्या वेळच्या माइया कामामुळे निवडणुकीच्या कामातला छोटासा तज्ञ म्हणून माझाही हळुहळु लौकिक बनत चालला होता. त्यामुळे १९३७ सालच्या जिल्हा लोकल बोर्डात निवडून आलेल्यापैकी श्री. धुळाप्पा आण्णा नवले, सखाराम बाजी रेठरेकर आणि गौरीहर सिंहासने हे माझे महत्वाचे मित्र झाले होते. जवळ जवळ चार-सहा महत्वाच्या जिल्हा बोर्डाच्या सभासदांचा मी राजकीय सल्लागार मानला जाई. त्यामुळे जिल्हा लोकल बोर्डाचे अध्यक्ष कोण असावे या चर्चेमध्ये माझे हमखास स्थान असे.

यशवंतराव चन्हाण ज्यावेळी कॉग्रेसमध्ये होते, "इंदीरा गांधी विरुद्ध मी शेवटपर्यंत लढेन" असे उद्गार त्यांनी काढले होते. श्रीमती गांधी विरुद्द ते ठामपणे उभे राहिले होते. त्यामुळे महाराष्ट्रत पुन्हा जोरदार स्वागत सुरु झाले होते. यशवंतराव चव्हाणांनी आणीबाणीचे समर्थन केले नाही. ती चुक पुन्हा होणार नाही अशी भूमिका घेतल्याने श्रीमती गांधी व त्यांच्यातील मतभेद तीव्र झाले व त्यामुळे श्रीमती गांधीशी आपला संबंध संपला या भूमिकेत यशवंतराव होते. आणिबाणीचे समर्थन म्हणजे इंदिरा -संजय या कुटुंबियांचे समर्थन आहे. व त्या कळपात मी राहू इच्छीत नाही आणिबाणीतच राष्ट्राध्यक्ष पध्दती त्यांना आणवयाची होती. ती रोखण्यात यशवंतरावांचा फार मोठा वाटा होता.
परराष्ट्रीय धोरणाची दिशा - भूमिका : सर्व आशियाई राष्ट्रात शांततेचे, सुरक्षिततेचे व सहकार्याचे

वातावरण वाढले पाहीजे. यासाठी भारत प्रयत्नशील आहे. त्याचप्रमाणे हिंदी महासागरात परकीय लष्करी शक्तींना वाव मिळू नये यासाठीही भारत प्रयत्न करीत आहे. हिंदी महासागर शांततेचे प्रांगण बनले पाहिजे, हे भारताच्या परराष्ट्र नितीचे महत्वाचे सुत्र आहे. भारताच्या नितीची ही सुत्रमाला नजरेसमोर ठेवून उपखंडात आणि पूर्व रशिया अरबरराष्ट्रे यांच्यामध्ये आर्थिक व राजकीय सहकार्य वाढावे या धोरणाचा भारत सरकार सतत पाठपुरावा करणार आहे व या दिशेने निश्चित पावले टाकण्यास सुरुवातही झाली आहे.
जागतिक शांततेच्या प्रस्थापनेसाठी क्रियाशील राहणे. सर्व देशांशी सहजीवनाच्या आणि सहकार्याच्या भूमिकेवरुन संबंध प्रस्थापित करणे, समान आणि न्याय, अर्थव्यवस्था उभारण्यासाठी प्रयत्तशील असणे आणि जगात जेथे कोठे स्वातंत्य आणि मानवी प्रतिष्ठा यासाठी संघर्ष चालू असेल, त्याला मनःपुर्वक पाठिंबा देणे, ही आपल्य परराष्ट्रीय धोरणाची मार्गदर्शक मुलतत्वे आहेत. आपल्य सांस्कृतीक परंपरेचा आणि स्वातंत्र्यसंग्रमाचा तोच वारसा आहे.

आपल्या परराष्ट्र धोरणाचा खराखुरा आधार अलिप्तवादाची संकल्पना, वसाहतवादविरोधी संकल्पना साम्राज्यविरोधी संकल्पना शांततामय सहजीवनाचा पुरस्कार करण्याची संकल्पना त्यामुलभूत परराष्ट्रीय धोरणाचे आतंरराष्ट्रीय अविष्कार ठरतात. काही देशांशी आपली खास मैन्री असावी आणि इतरांबरोबर मात्र ‘आम‘ मैत्री ठेवावी असे काही जण म्हणतात. परंतु मैत्रीमध्ये असा फरक करणे मला मंजूर नाही. आपण आपल्या मित्रांची निवड केली पाहीजे असे म्हणणान्यांना आपण आपल्या शत्रुंचीही निवड केली पाहिजे. असे सुचवायचे असते. परंतु मला हे अभिप्रेत नाही मला हे मान्य आहे की काही वेळा असे घडते की काही ऐतिहासिक कारणांमुळे काही देशांबरोबरचे संबंध आपोआप दृढ होत जातात असे घडणे स्वाभाविक असले तरीखास मैत्री आणि असा आपण फरक करता कामा नये असे मी मानतो.

शस्तास्त्रांच्या खरेदीसाठी चव्हाणांनी जे परदेश दौरे केले त्यामुळे भारताच्या परराष्ट्र संबंधाना एक नवीन दिशा मिळाली. चव्हाण परराष्ट्रमंत्री झाले तेव्हा भारताचे रशियाशी असलेले संबंध सौहार्दाचे होते.
विविध राजकीय पदांवर काम करतांना यशवंतराव चव्हाण यांना अनेक आव्हांनाना तोंड दयावे लागले. तरीही ते डगमगले नाहीत प्रसंगी अर्जुनासारखे आपल्या पक्षतील लोकांशी त्यांनी दोन हात केल्याचे दिसून येते. म्हणून खन्या अर्थाने ते भारताचे तसेच महाराष्ट्राचे शिल्पकार ठरतात.
संदर्भ :
१ कृष्णाकाठ - एक आस्वाद अस्वादक - नरेंद्र मारवाडे, पृष्ठ १ २
२ यशवंतराव चव्हाण कर्तृत्व आणि नेतृत्व - संपादन शंकर सारडा, टी.व्ही क्न्हीकृष्णन पृष्ठ १५७, १५८, १५९.

## दलित समाजातील अंधश्रध्देचा ऐतिहासिक आढावा

डॉ अरुण दळवे :(प्राचार्य) वसुंधरा महाविद्यालय, घाटनांदूर ता. अंबाजोगाई जि. बीड
१.१- प्रस्तावना - भारतामध्ये विविध प्रदेश आहेत. त्या प्रदेशात विविध धर्म आहेत. त्या विविध धर्मामध्ये बहुतांश संखेने जास्त असलेला धर्म म्हणजे हिन्दू धर्म होय. हिन्दू धर्मातील जाती समूहाचा धर्म एक असूनही या जाती वेगवेगळया पध्दतीने जीवन जगतांना दिसून येतात. जाती मध्ये श्रेणीनुसार पुन्हा विषमता दिसते. जाती व्यवस्थेतील जो शेवटचा खालच्या तत्वाचा वर्ग आहे. त्याच्या नशिबी गुलामगिरीचे व हीन-दीन जीवन जगणे आलेले आहे. या वर्गालाच नंतर ‘दलित’ असे म्हटले जाऊ लागले. दलीत या मानवी समूहात गरीब, कामगार, अस्पृश्य, श्रमिक, आदिवासी ज्यांची आर्थिक परिस्थिती वाईट आहे. अशा सर्वाचां समावेश होतो. मुळ शब्द ‘पददलित’ असा असला तरी पददलित म्हणजे कुणाच्या तरी पायाचा दास ?

## १.२ - दलित म्हणजे कोण ? -

दलित म्हणजे ज्याची आर्थिक परिस्थिती खालावलेली आहे जो अन्न, वस्त्र व निवान्या पासूनही वंचित आहे तो दलित. लक्ष्मण शास्त्री जोशीच्या मते, "दलित म्हणजे मानवी प्रगतीत सर्वात मागे पडलेला आणि रेटलेला सामाजिक वर्ग होय." ${ }^{2}$ बाबूराव बागूल यांच्यामते, "दलित म्हणजे हे जग आणि जीवन नव्याने मांडू पाहणारा." ${ }^{3}$ डॉ. बाबासाहेब आंबेडकरांनी सर्व प्रथम दलित या शब्दाचा वापर केला. प्रथमत: हा शब्द महार जाते साठीच वापरला जात असे नंतर मात्र सर्व अनुसूचित जातीसाठी वापरला जाऊ लागला. ${ }^{\gamma}$
१.३ - दलितामध्ये समावेश होणान्या जाती - मध्ययुगीन काळातील समाजात ब्राह्मण, मराठा, कोळी सुतार, लोहार, कोष्टी मुस्लीम, माळी, वंजारी, महार, मांग आणि चांभार या शिवाय अनेक जाती प्रचलित होत्या. महार, मांग व चांभार या जातीचा समावेश दलित जातीमध्ये होत होता. त्यांचा उल्लेख अतिशुद्र व अस्पृश्य या नावाने केलेला आढळतो. दलित जातीमध्ये महार ही प्रमुख जात होती. त्यानंतर मांग आणि चांभार जातींचा व्रमांक लागतो. ${ }^{4}$

## १.४ - दलितांचे समाजातील स्थान -

समाजामध्ये दलितांचे जीवन फार हालाखीचे होते. वस्ती नगराच्या व गावाच्या पूर्व दिशेला करावी लागते असे म्हणतात की, "दक्षिणेत वारा व सांडपाणी वाहण्याची दिशा पूर्व आहे." ६ ग्रामीन भागात दलित हा भूमीहीन, शेतमजूर, कष्टकरी, श्रमीक म्हणून जीवन जगत होता. घर सुध्दा साधे झोपडीचे होते. समाजात जीवन जगतांना जागल्या वेसकर, राबता महार, पादेवार, वेठबिगार अशा विविध भूमिका पार पाडाव्या लागत असे. त्याला समाजाने ठरवून दिलेलीच कामे करता येत होती.७ समाजातील हे दलितांचे स्थान पाहूनच डॉ. बाबासाहेबांनी दि. १८ आक्टोबर १९५६ रोजी बौध्द धर्माचा स्वीकार केला.

## १.५- दलित समाजातील अंधश्रध्दा -

दलित समाज मुळातच अशिक्षित व आर्थिक दृष्टया मागासलेला दरिद्री राहिल्यामुळे त्यांच्याकडे नैराश्यही जास्त दिसून येते. त्यातून सुखाच्या पाठीमागे लागतात व नशिबावर अवलंबून राहतात. त्यामुळे ते दैववादी बनतात. त्या दैववादी समाजाला मनुवादी धर्मगंथ खतपाणी घालतात. त्यामुळेच दलीत समाज अंधश्रध्दाळू बनला आहे. रुढी,

परंपरा, अंधश्रध्दा ही दिवसें दिवस वाढतच गेली. बौध्द धर्माचा स्वीकार केल्या बरोबरच लगेचच आर्थिक गरजा पूर्ण झाल्या नाहीत. व पर्यायी व्यवस्था झाली नाही त्यामुळे नव बौध्द समाजही अंध श्रध्दाठूच राहिला.

## - १.५.१- ग्राम देवता मरीआईचा उत्सव -

प्रत्येक खेडेगावात गावाच्या बाहेर कडूलिंबाच्या झाडाखाली उघड्यावर चौथन्यावरच पाच दगडांना शेंदूर फासलेला असतो. त्यालाच मरिआई असे म्हणतात. मरिआई देवीलाच लक्ष्मी ${ }^{〔}$ असे नाव आहे. गावावर महामारी अथवा रोगराई आल्यावर गावकरी देवीचा कोप झाला, देवी आपल्यावर कोपली आहे. तिला प्रसन्न करण्यासाठी तिचा उत्सव साजरा केला जातो. उत्सवासाठी आजूबाजूच्या खेडयातील पोतराज मंडळी बोलवल्या जातात. रेडा हे देवीचे वाहन म्हणून संबोधले जाते. उत्सवाच्या दिवशी रेडयाला देवीच्या समोर कापण्यात येते. देवीची बोळवण ${ }^{\circ}$ केली जाते. पोतराजा बरोबर दलित स्त्रियांचाही सहभाग या उत्सवात असतो. त्यांच्या अंगात ${ }^{\circ}{ }^{\circ}$ येते. गावाबाहेर देवीच्या ठिकाणावरच हा उत्सव सर्वजण साजरा करतात. व आता देवी प्रसन्न झाली आहे. रोगराई, महामारी पूर्णपणे नष्ट होईल असे म्हटले जाते.

## १.५.२ - देवदासी -

देवाची दासी म्हणजे देवदासी ${ }^{3}$. मंदिरातील देवदेवतांची आयुष्यभर ‘सेवा’ करणे हे तिचे काम. देवदासीच्या प्रथेविषयी अनेक गोष्टी सांगितल्या जातात. पण मुळत: या वाईट प्रथेची बीजे धर्म आणि अंधश्रध्देमध्ये आहेत. धार्मिक अधिष्ठान मिळाल्यामुळे या प्रथेविरुद्य आवाज उठविण्यास शेकडो वर्षे जावी लागली. मंदिर आणि देवदासी यांचा अतूट संबंध आहे. म्हणून प्राचीन काळात मंदिरातील देवांची सेवा करण्यासाठी महिला सर्रास असत. या प्रथेत या देवदासीचा विवाह देवासोबत लावत असत. ${ }^{\imath २}$ भारतातील मंदिरात पुजान्याचे स्थान प्रथम, त्यानंतर दुसरे स्थान देवदासीचे आहे, असे दुबॉईस ${ }^{३ ३}$ या लेखकाने हिन्दू मॅनर्स, कस्टम्स आणि सेरेमनिज या पुस्तकात म्हटले आहे. प्रत्येक देवदासीला देवळात नाचगाणे करावे लागत असे. मंदिरामध्ये बाहेरेन येणान्या बडया मंडळीसोबत शय्या सोबत करावी लागत असे. त्याबद्दल तिला धान्य, पैसे या स्वरुपात मोबदला मिळत असे. मंदिरातील तिची नेमणूक मासिक अथवा वार्षिक वेतनावर केली जात असे.

## १.५.३- पोतराज-

पोतराज ही पध्दती किंवा रुढी महार समाजामध्ये अधिक होती. ${ }^{~}{ }^{\gamma}$ कुटुंबातील एखादा मुलगा देवाला सोडला जात असे. गुरु पोतराजाकडून त्याला दीक्षा देण्यात येत असे. धार्मिक प्रसंगी याला मानाचे स्थान होते. पोतराज म्हणजे पोतराजा किंवा म्हशीचा राजा होय. ${ }^{3}$ देवीची यात्रा, देवीच्या उत्सवाला हे पोतराज नेहमी हजर असतात.

## १.५.४ - वाघ्या - मुरळी -

वाघ्या मुरळी ही प्रथा प्रामुख्याने धनगर समाज व मातंग समाजामध्ये अधिक प्रमाणात आढळते. ${ }^{〔 \xi}$ एखाद्या दलित कुटुंबामध्ये मूल होत नसेल किवा जिवंत राहत नसेल तेंक्हा मरीआईला नवस बोलून मूल देखील दान देण्यात येते. तेव्हा ते मूल मुलगा असेल तर वाध्या व मुलगी असेल तर मुरळी म्हटले जाई यांना देवीच्या नावानेच सोडण्यात येत असे. यात्रा व विवाहानंतर जागरण गोंधळात हे सहभागी होत असत. वाघ्या -मुरळीचा विवाह देवाशीच लावला जातो. वाईट प्रकृतीचे लोक याचा फायदा घेतात. मुरळीला झालेल्या मुलाला देवाचेच मुळ समजण्यात येते. महार समाजातून ही प्रथा नष्ट झाली आहे. मात्र धनगर समाज व मातंग समाजामध्ये काही प्रमाणात ही प्रथा आजही पहावयास मिळते. ${ }^{\text {ै }}$

## १.५.५-करणी करणे किंवा भानामती -

करणी करणे किंवा भानामती हा प्रकार बहुजन समाजात सर्वत्रच कमी जास्त प्रमाणात दिसून येतो. कपडे फाडणे, घरावर दगड येणे, मुठ मारणे, अंगावर फूल्या उमटणे, जेवण कडू होणे, म्हशीचे, गाईचे दुध आटणे, अन्नात राख कालवली जाते. ${ }^{\circ}{ }^{\circ}$ करणीतून मुक्तते करिता कोंबडीची अंडी, बकन्याची मुंडकी ओवाळून जमिनीत पुरण्याचा तोडगा करीत. ${ }^{\circ}$ 'एखादयास ठार मारण्यासाठी मांत्रिकामार्फत मुठ मारण्याची क्रिया करणे म्हणजे एक अभिचारात्मक जादूचा प्रकार होता. ' $० \circ$ या क्रियेचा उल्लेख भारतीय संस्कृती कोशातही आलेला आहे.

## १.५.६-जादूटोणा व भुतावरील विश्वास -

महाराष्ट्रीय समाज जीवनात महारांप्रमाणेच मांगानाही अतिशुद्रमानले जात असे. ${ }^{2}$ पेशवे काळात मांगाचा प्रशासनात सहभाग असे. पेशवे सरकारने प्रत्येक गावागावातून महार व रामोशी सोबत मांगाचीही हेरगिरीच्या कामावर नियुक्ती केल्याचे वाचावयास मिळते. ${ }^{२ २}$ बहिरोबा, अंबाबाई, खंडोबा, म्हसोबा या मांगाच्या कुलदेवता होत्या.
मांग मंगळवार व शुक्रवारी देवीला आणि रविवारी देवाला कोंबडे व बकज्याचा बळी देत असत. साथीच्या रोगांपासून मुक्तते करीता मरीआईला बकन्याचा बळी देत. मांग अंधश्रध्दाळूपणे मंत्रतंत्र, जादूटोणा, भुते यांच्यावर विश्वास ठेवीत. ${ }^{2 ३}$ बुरुड मांग खंडोबा आणि भवानी देवीला बकरा ${ }^{2 \gamma}$ बळी देत असल्याचे वाचावयास मिळते.

## १.५.७-नर बळी देण्याची प्रथा -

कोणतेही बांधकाम करावयाचे असले तर भूतपिशाच्य बाधीत जागेवर नरबळी ${ }^{\text {ै }}$ देवून संतुष्ट केल्याशिवाय काम होत नाही अशी समाजाची समजूत होती. अशा ठिकाणी नरबळी देवून कामे पूर्ण केल्याची उदाहरणे वाचावयास मिळतात. ढमाजी गायकवाड हे दावडी गावाची तटबंदी बांधीत असतांना एका बाजुचा बुरुज काही चढविला जात नव्हता. त्या जागी भूतपिशाच्य बाधा असावी असे वाटले. भगताने त्या जागी मांगाचे जोडपे बळी देवून भूताला संतुष्ट केल्याशिवाय बुरुज चढणार नसल्याचे सांगितले तेंक्हा गावातील मांगाचा मुलगा व सून यांना बळी पाठविण्याचे ठरले. परंतु मुलगा व सून तरुण होते. "आपले मात्र वय झाले आहे. आपला राहून काय उपयोग ?" म्हणून वृध्द मांग व त्याची बायको हे दमाजी गायकवाडांकरीता जिवंत बळी जाण्यास तयार झाले. मोबदल्यात वृध्द् मांगाने मांग जातीसाठी कांही सवलती मिळविल्यात. या वृध्द जोडप्यास नवी वस्त्रे परिधान करवून, मिरवणूक काढून बुरुजाच्या जागी आणले. पुजा अर्चा करुन त्यांना खड्ड्यात जिवंत गाडण्यात आले. अशा रितीने भूत पिशाच्य बाधीत जागेवर जिवंत बळी दिल्यावर बुरुजाचे ${ }^{\text { }}$ काम पूर्ण झाले. असा उल्लेख वाचावयास मिळतो.

## १.५.८ - ग्रामदेवता -

महाराष्ट्रीय दलीत समाजात ग्रामदेवतांची पुजा केल्याने, ग्रामदेवतेस बळी दिल्याने तसेच नवस केल्यामुळे त्या प्रसन्न होतात अशी श्रध्दा होती. ${ }^{\text {२७ }}$ आजच्या विज्ञानयुगातही ग्रामदेवतांचे महत्व कमी झालेले दिसत नाही. ग्रामदेवता हया गावांचे संरक्षण करतात त्यांची पुजा अर्चा केल्याने गावावरील संकटाचे विमोचन होते. अशी समाजाची समजूत होती. त्यामुळे ग्रामदेवतांना संतुष्ट ठेवण्यासाठी गावातील लोक एकत्र येवून सामूहिक पूजा करीत. दसन्याच्या दिवशी ग्रामदेवतांना बकय्याचा बळी देत. गावात साथीच्या रोगांची लागण झाल्यास पशु बळी देत. बळी दिल्या जाणान्या पशुमध्ये बकरा, कोंबडे, यांचा समावेश असे. कांही जाती जमातीचे लोक डुक्कर, बकरी, गाय, बैल, रेडे या पशुचांही बळी देत असत. प्रसंगी ग्रामदेवतांना नरबळी ही दिला जात असे. मुंजा,

वेताळ, म्हसोबा, सितलामाता, समाई, हर्दिया, मरीआई, कमळजादेवी, खंडोबा, आसरा, पोट फोडी माता, परी, पाचोनपरी, इत्यादी अनेक ग्रामदेवतांचे उल्लेख वाचावयास मिळतात. ${ }^{\text {® }}$
महाराष्ट्र ज्ञानकोशात ‘खेडेगावातील जी संरक्षण दैवते त्याच गावच्या ग्रामदेवता’ ${ }^{\text {२९ }}$ अशी संक्षिप्त व्याख्या दिलेली आहे. ग्रामदेवता ह्या खेडयामध्ये दुर्लक्षित अशा जागेत शेंदूर लावून ठेवलेल्या आढळतात. सामान्यपणे उंच टेकडीवर, ओढा अथवा नाल्याच्या काठावर, विहीर किंवा तलावाजवळ, पिंपळ व वटवृक्षाच्याखाली, ${ }^{30}$ तसेच गावाच्या वेशीवर बसविलेल्या असतात. ग्रामदेवतांना पुजेसाठी धुप-दीप, शेंदूर, फुले व नैवेद्य चालत असे. परंतु त्यांना कोंबडा, बकरा प्रसंगी नरबळी, तसेच अफू, मध, भांग प्रिय असे. ${ }^{\text {? }}$

## १.६-निष्कर्ष:-

भारतात विविध जाती धर्म असतांना वेगवेगळया पध्द्तीने जीवन जगतांना दिसतात. जातीजातीत श्रेणीनुसार पुन्हा विषमता दिसते. सर्वात खालच्या वर्गास 'दलित’ असे म्हटले जाऊ लागले. दलित हा शब्द सुरुवातीला आंबेडकरांनी वापरला. दलितामध्ये महार, मांग, ढोर, चांभार जातीचा समावेश होतो. समाजामध्ये दलितांचे जीवन फार हालाखीचे होते. समाजाने ठरवून दिलेलीच कामे त्यांना करावी लागत होती. दलित समाज मुळातच अशिक्षित व आर्थिक दृष्टया मागासलेला राहिला व नैराश्येतून अंधश्रध्देकडे वळला. त्याला मनुवादयांनी खतपाणी घातले बौध्दधर्म आर्थिक गरजा पूर्ण करु शकला नाही. त्यामुळे दलित समाज अंधश्रध्दाळूच राहिला. व अंधश्रध्दा वाढतच राहिल्या. १४ आक्टोबर १९५६ला डॉ. बाबासाहेब आंबेडकरांनी बौध्द धर्माची दिक्षा दिल्यानंतर मात्र समाजामध्ये परिवर्तन दिसून येत आहे. आज समाज या अंधश्रध्देपासून दूर जावून आपल्यात परिवर्तन घडवून आणतांना दिसत आहे. अशिक्षिताचा तो आता सुशिक्षित झाला आहे. श्रध्दा व अंधश्रध्दा यातील फरक त्याला समजायला लागला आहे. दलित समाज आज सुधारणांचा स्वीकार करतांना दिसतो आहे. जागतिकीकरणाने तर त्यात भरच घातली आहे.

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$\circ$ ६) अलेक्झांडर राबर्टसन (अनु. सावली बोधी) महार लोक, नागपूर, सुगावा प्रकाशन, पृ - १८.
०७) आंबेडकर बी. अ १९६५, महार आणि त्यांचे वतन, वर्धा, शशी एजन्सी, पृ - ३.
०८) अलेक्झांडर रॉबर्टसन, पूर्वोक्त, पृ - ६९.
$\circ ९$ ) बोळवण-एका लाकडी गाडयावर लाकडी देवी तयार करून बसविली जाते. तिला हिरवी साडी व हिरवा चुडा म्हणजे हिरव्या बांगडया घातल्या जातात. सर्व साज शृंगार करुन वाजत गाजत गावातून गावकरी गावाबाहेर घेऊन जातात.
१०) अंगात येणे - देवीचा संचार त्यांच्या अंगामध्ये झाला आहे असे गृहित धरले जाते. अंगात देवी आल्यावर

त्या सारख्या झूलत असतात. त्याल अंगात येणे असे म्हणतात.
११) कांबळे उत्तम, २००२, देवदासी आणि नग्नपूजा, मुंबई, लोकवाङ़मय गृह, पृ - १.
१२) लिंबाळे शरणकुमार, १९९७, गाव कुसा बाहेरील कथा, पुणे, मधुराज प्रकाशन, पृ - १ ३.

