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# 1

## ASSESSING THE IMPACT OF GLOBAL WARMING ON PLANT COMMUNITIES: AN ANALYSIS AND BOTANICAL MITIGATION STRATEGIES FOR ECOLOGICAL RESILIENCE

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### ABSTRACT

*Over the next few decades, plant biology will be impacted by global warming in all aspects. There is already ample evidence of several changes in wild species brought about by rising CO<sub>2</sub> concentrations in the atmosphere, a warmer planet, and shifting precipitation patterns. The abundance of data now accessible has made it possible to employ meta-analyses to investigate plant-climate interactions at a deeper level than previously possible.*

*This study investigates the far-reaching consequences of global warming on plant communities through a comprehensive analysis that spans ecological, physiological, and evolutionary dimensions. The intricate interplay between rising temperatures, altered precipitation patterns, and soil conditions is examined to elucidate the multifaceted impacts on diverse plant species and their communities. We offer a comprehensive grasp of the difficulties faced by plant populations in a rapidly changing climate by combining empirical data.*

*Furthermore, this paper introduces innovative botanical mitigation strategies aimed at bolstering ecological resilience. From adaptive management approaches to the integration of resilient plant species, we explore a spectrum of strategies tailored to mitigate the adverse effects of global warming on plant communities. Our findings underscore the urgency of proactive conservation measures and the potential for botanical interventions to foster ecological stability in the face of climate change. This paper contributes vital insights to the broader scientific discourse on sustainable practices for safeguarding plant biodiversity and ecosystem functioning in the Anthropocene.*

**Keywords:** *Global warming, biodiversity loss, habitat degradation, afforestation, and sustainable development Anthropocene.*

### Introduction

One of the alarming scientific issues faced by plant biologists, agronomists, and conservation biologists today is climate change. Plant ecophysiology, distribution, and interactions with other organisms are projected to be impacted by rising atmospheric CO<sub>2</sub>, as well as related changes in temperature and precipitation since global greenhouse gas emissions are predicted to rise for the foreseeable future. (Intergovernmental Panel on Climate Change (IPCC), 2014).

In the face of unprecedented environmental challenges, the specter of global warming looms ominously over the intricate tapestry of our planet's ecosystems. As stewards of the botanical realm, our understanding of the causes, consequences, and

mitigation strategies associated with this escalating crisis is pivotal. This journal paper embarks on a comprehensive exploration, aiming to unravel the intricate web of global warming and elucidate the profound implications for botanical systems.

The causes of global warming are deeply entwined with human activities, as anthropogenic influences continue to drive unprecedented changes in our climate. Deforestation, industrial emissions, and the combustion of fossil fuels contribute to the rise of greenhouse gases, amplifying the greenhouse effect and disrupting the delicate balance that sustains life on Earth. As botanists, our purview extends beyond the immediate consequences of these anthropogenic activities to encompass the profound impacts on plant life, biodiversity, and the intricate relationships within ecosystems.

The consequences of global warming are multifaceted, affecting distribution patterns, plant phenology, and overall ecosystem dynamics. Biotic interactions are disturbed, and the specter of biodiversity loss is large. As key components of terrestrial ecosystems, plants serve as both indicators and mediators of climate change, making their responses to global warming integral to our understanding of broader ecological shifts.

In response to this pressing challenge, our exploration extends to the realm of botanical mitigation strategies. Plants, with their innate capacities for carbon sequestration, adaptive responses, and ecosystem restoration, offer a beacon of hope in the endeavor to mitigate the impacts of global warming. This paper navigates through the diverse botanical interventions available, emphasizing the importance of sustainable practices, afforestation initiatives, and the preservation of biodiversity as indispensable elements of a holistic strategy to counteract the effects of climate change.

As we delve into the complexities of the interconnected systems that constitute our global environment, this paper seeks to provide a nuanced and botanically grounded perspective on the causes, consequences, impact, and mitigation strategies associated with global warming. Through this exploration, we aim to contribute valuable insights to the ongoing dialogue surrounding the urgent need for sustainable practices and the preservation of the delicate balance that sustains life on Earth.

#### **Causes of Global Warming:**

##### **Anthropogenic Greenhouse Gas Emissions:**

Human activities, particularly the burning of fossil fuels for energy, industrial processes, and deforestation, contribute significantly to the release of greenhouse gases such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). These emissions enhance the natural greenhouse effect, trapping heat in the Earth's atmosphere and leading to an overall warming of the planet.

##### **Deforestation and Land-Use Changes:**

The clearing of forests for agriculture, logging, and urbanization not only reduces the number of trees available to absorb CO<sub>2</sub> but also releases stored carbon into the atmosphere. Furthermore, altered land-use patterns contribute to changes in surface albedo, affecting the Earth's energy balance and exacerbating global warming.

##### **Industrial Activities:**

Industrial processes, including manufacturing and the production of certain chemicals, release greenhouse gases and other pollutants into the atmosphere. Emissions from industrial activities contribute to the warming of the planet and can have localized effects on air quality and climate.

##### **Agricultural Practices:**

Agricultural activities, such as livestock farming and rice cultivation, produce methane emissions. Additionally, the use of synthetic fertilizers releases nitrous oxide, a potent greenhouse gas. Changes in land use for agriculture also contribute to habitat loss and fragmentation, impacting ecosystems and biodiversity.

**Waste Management Practices:**

Improper waste disposal, especially in the form of landfill decomposition and waste incineration, releases methane and carbon dioxide into the atmosphere. Effective waste management strategies are crucial for mitigating these emissions and reducing their impact on global warming.

**Transportation Emissions:**

The combustion of fossil fuels in vehicles, airplanes, and ships releases substantial amounts of greenhouse gases, particularly carbon dioxide. As global transportation networks expand, so does the contribution of the sector to overall emissions, making sustainable transportation solutions imperative for mitigating global warming.

Understanding these anthropogenic causes is essential for formulating effective botanical mitigation strategies to counteract the impacts of global warming on plant ecosystems and, by extension, the overall health of the planet.

**Consequences of Global Warming:**

**Altered Phenology:**

Temperature and other environmental factors are commonly linked to the timing of phenological phenomena like blossoming. Thus, it is expected that shifting surroundings will result in altered life cycle events, and numerous plant species have shown evidence of these alterations

(Parmesan C, Yohe G 2003). These alterations may result in asynchrony between species or alter plant-to-plant competition. Because of the erratic and unclear relationship brought on by climate change, populations of both plants and insect pollinators will eventually become extinct (Bellard, et. al 2012).

For instance, annual plants now flower earlier than perennials, and plants pollinated by insects flower earlier than those pollinated by wind. This shift in flowering periods may have ecological repercussions (Fitter AH &Fitter RS (May 2002).

Author and naturalist Henry David Thoreau's data was used in a recently released study to confirm the impact of climate change on the phenology of some species in the Concord, Massachusetts, area( Willis C G, et. al 2008). Warmer winters can result in either summer drought or summer rainfall, which is another variation in the life cycle (Sternberg, et.al 1999).

Global warming disrupts the timing of biological events, impacting plant phenology. Changes in temperature and precipitation patterns influence the timing of flowering, fruiting, and other life cycle events, affecting the synchronization of plant interactions with pollinators and seed dispersers.

**Impacts on Food Security:**

The Earth's temperature rises, causing drastic changes to the environment that lead to abiotic stress. Environmental shifts are quite harmful and present several risks to naturally prevalent crop species (Espeland, et.al 2018).

Drought and heat are the two main challenges that plants face in the field and have a big impact on them (Pereira, et.al 2016). According to reports, plants need a certain temperature to grow and blossom normally. Temperature variations have a significant impact on plant physiology (Hatfield, J.L, et.al 2015).

Drought stress adversely impacts plant morpho-physiology, cold stress causes sterility, and heat stress impacts grain yield and productivity (Barlow, K., et.al 2015). These climate issues cause significant disruptions to plant growth and yield, eliciting massive reactions that include physiological, molecular, biochemical, and morphological changes (Zandalinas, S.I., et.al 2018).

In this context, plant scientists have found it very challenging to understand the mechanisms underpinning plant resistance due to the emergence of stress-resistant plants (Singh, al., et. al 2018). The primary cereal crops that are farmed throughout the world, such as maize, rice, and wheat, are necessary to supply the world's daily food demands. Of

them, wheat has been the staple grain that has been farmed on the largest scale (Tack, J., et. al 2015). Harvesting wheat, which yields a far higher protein concentration (15 grams per gram) than maize or rice (2-4%), takes up 38.8% of all agricultural land (FAO, 2017).

Its production has traditionally trailed behind that of rice and maize, despite having a large amount of growing territory worldwide. A reasonable decline in wheat productivity was predicted to occur with a two-degree Celsius increase in temperature. A related study on environmental variability anticipated a 6% drop in wheat output (Abhinandan, K., et.al 2018).

Challinor and colleagues (2007) state that a decrease in the grain filling phase caused by temperature increases is the main factor contributing to agricultural production degradation in changing climatic circumstances. Therefore, maintaining agricultural yield and cultivating stress-tolerant crop plants are essential jobs in contemporary agriculture (Abhinandan, al., et.al 2018).

Food security and crop production can be significantly impacted by global warming, which can also have a negative impact on agricultural systems. Global food production may be impacted by modifications to temperature and precipitation patterns, as well as a rise in the frequency of extreme weather events. These factors may make it more difficult for some crops to survive.

**Biodiversity Loss:**

The warming climate poses a significant threat to biodiversity, as many plant species are unable to adapt or migrate quickly enough to track suitable habitats. This leads to shifts in species distribution, and in some cases, local extinctions, which can have cascading effects on entire ecosystems.

The IPCC Sixth Assessment Report projected that in the future, 9%-14% of the species assessed would be at a very high risk of extinction under 1.5 °C (2.7 °F) of global warming over the preindustrial levels, and more warming means more widespread risk, with 3 °C (5.4 °F) placing 12%-29% at very high risk, and 5 °C (9.0 °F) 15%-48%. In particular, at 3.2 °C (5.8 °F), 15% of invertebrates (including 12% of pollinators), 11% of amphibians and 10% of flowering plants would be at a very high risk of extinction, while ~49% of insects, 44% of plants, and 26% of vertebrates would be at a high risk of extinction (Intergovernmental Panel on Climate Change (IPCC), 2021).

**Habitat Degradation:**

Rising temperatures, coupled with extreme weather events, contribute to habitat degradation. Changes in precipitation patterns, increased frequency of wildfires, and sea-level rise can lead to the loss and fragmentation of plant habitats, further exacerbating the challenges faced by numerous plant species.

**Elevated Risk of Invasive Species:**

Warmer winters and a longer growing season also help the pests, pathogens, and invasive species that harm vegetation. During longer growing seasons, more generations of pests can reproduce as warmer temperatures speed up insect life cycles, and more pests and pathogens survive over warm winters. Rising temperatures are also driving some insects to invade new territories, sometimes with devastating effects on the local plants.

Higher temperatures and an increase in moisture also make crops more vulnerable. Weeds, many of which thrive in heat and elevated CO<sub>2</sub>, already cause about 34 percent of crop losses; insects cause 18 percent of losses, and disease 16 percent. Climate change will likely magnify these losses.

Warmer temperatures can enhance the reproductive capacity of certain invasive species, allowing for more rapid population growth. Extended growing seasons, favorable conditions for seed germination, and increased reproductive output can contribute to the success of invasive species in establishing and spreading within new environments.

Global warming may disrupt existing ecological relationships, creating opportunities for invasive species to exploit altered interactions. For example, changes in temperature and

precipitation patterns can affect the abundance and distribution of native species, creating niches that invasive species can exploit.

Global warming can create favorable conditions for the expansion of invasive plant species into new territories. Invasive plants may out-compete native flora, disrupt ecosystem functions, and reduce overall biodiversity.

**Rising Incidence of Pests and Diseases:**

Warmer temperatures and altered climatic conditions create conducive environments for the proliferation of pests and diseases affecting plants. This can result in increased pressure on agricultural and natural plant populations, posing challenges to plant health and productivity.

Elevated temperatures and changing climatic conditions can influence the prevalence and distribution of diseases affecting both native and invasive plant species. Invasive plants may benefit from reduced pathogen pressure, contributing to their competitive advantage over native counterparts.

How Climate Change Will Affect Plants, article BY RENEE CHO | JANUARY 27, 2022

**Changes in Ecosystem Structure and Function:**

Photosynthesis, the fundamental process by which plants convert sunlight into energy, is a critical aspect of plant physiology and ecosystem functioning.

It is highly temperature-sensitive, with optimal rates occurring within specific temperature ranges for different plant species. Global warming can lead to temperatures exceeding these optima, resulting in reduced photosynthetic efficiency. Higher temperatures may disrupt the balance between light-dependent and light-independent reactions, affecting overall carbon assimilation.

Climate change often brings about alterations in precipitation patterns, leading to increased frequency and intensity of droughts. Water scarcity places stress on plants, impacting their ability to maintain turgor pressure, uptake essential nutrients, and undergo crucial biochemical reactions associated with photosynthesis.

While elevated atmospheric carbon dioxide (CO<sub>2</sub>) levels can stimulate photosynthesis to some extent, the concurrent rise in temperatures may offset these benefits. The interaction between temperature and CO<sub>2</sub> concentration is complex, and excessively high temperatures can negate the positive effects of increased CO<sub>2</sub> on photosynthetic rates.

Photorespiration: Elevated temperatures can intensify photorespiration, a process that competes with photosynthesis for the same substrate (ribulose-1,5-bisphosphate). Increased photorespiration reduces the efficiency of carbon fixation and can lead to a net loss of fixed carbon, negatively impacting plant growth.

Photosynthesis is crucial, as photosynthesis not only sustains plant growth but also contributes significantly to the global carbon cycle.

Nitrogen fixation, a vital biological process that converts atmospheric nitrogen into a form usable by plants, has profound implications for plant growth, ecosystem functioning, and nutrient cycling. Nitrogen fixation is primarily carried out by certain bacteria, either free-living in the soil or forming symbiotic associations with plant roots.

Nitrogen-fixing bacteria, both free-living and symbiotic, exhibit temperature sensitivity. Elevated temperatures associated with global warming can affect the enzymatic activities of these microorganisms, potentially reducing their efficiency in fixing atmospheric nitrogen.

Changes in temperature and precipitation patterns can disrupt these symbiotic associations, impacting the ability of plants to access nitrogen through mutualistic interactions.

Global warming often leads to alterations in precipitation patterns, resulting in changes in soil moisture levels. Nitrogen-fixing bacteria are sensitive to soil moisture, and

variations in water availability can influence their activity. Drought conditions may reduce the abundance and effectiveness of nitrogen-fixing bacteria in the soil.

**Competition for Resources:** Changes in temperature and precipitation can affect the composition of plant communities. Increased competition among plant species for limited resources, such as water and nutrients, may influence the distribution and abundance of nitrogen-fixing plants, ultimately impacting the overall nitrogen-fixation capacity of ecosystems.

Shifts in climate can alter the structure and function of ecosystems. Changes in temperature and precipitation affect nutrient cycling, water availability, and the relationships between plant and microbial communities, leading to potential disruptions in ecosystem services.

**Habitat Degradation:**

Rising temperatures, coupled with extreme weather events, contribute to habitat degradation. Changes in precipitation patterns, increased frequency of wildfires, and sea-level rise can lead to the loss and fragmentation of plant habitats, further exacerbating the challenges faced by numerous plant species.

**Sea-Level Rise and Coastal Ecosystem Changes:**

Global warming contributes to the melting of polar ice caps and glaciers, resulting in sea-level rise. Coastal ecosystems, including mangroves and salt marshes, face inundation, impacting the unique plant species that inhabit these areas.

Understanding the diverse consequences of global warming on plant ecosystems is paramount for developing effective botanical mitigation strategies. These consequences highlight the urgency of implementing measures to address climate change and safeguard the resilience of plant life on Earth.

**Mitigation Strategies for Global Warming: A Botanical Perspective**

**Carbon Sequestration by Plants:**

Harnessing the unique ability of plants to absorb and store carbon dioxide is a pivotal strategy for mitigating global warming. Afforestation, reforestation, and sustainable forest management practices can enhance carbon sequestration, contributing to the reduction of atmospheric greenhouse gas concentrations.

**Promotion of Agroforestry Practices:**

Integrating trees and other perennial vegetation into agricultural landscapes through agroforestry practices enhances carbon sequestration while providing additional benefits such as improved soil health, water conservation, and biodiversity enhancement. This approach aligns agricultural productivity with climate mitigation objectives.

**Restoration of Degraded Ecosystems:**

Rehabilitating degraded ecosystems, including deforested areas and damaged wetlands, is crucial for mitigating the impacts of global warming. Restoration efforts not only sequester carbon but also enhance biodiversity, improve water retention, and contribute to the overall resilience of ecosystems.

**Emphasis on Native and Climate-Resilient Species:**

Prioritizing the use of native and climate-resilient plant species in restoration and afforestation projects ensures the sustainability and adaptability of ecosystems. These species are better suited to thrive in changing climatic conditions and play a vital role in preserving local biodiversity.

**Sustainable Land Use and Urban Planning:**

Implementing sustainable land use practices and urban planning that prioritize green spaces, urban forests, and green roofs can mitigate the urban heat island effect and enhance carbon sequestration. Well-designed urban greenery contributes to both climate resilience and improved quality of life.

**Conservation of Biodiversity Hotspots:**

Focusing conservation efforts on biodiversity hotspots ensures the protection of unique and often endangered plant species. Preserving these areas contributes not only to the conservation of biodiversity but also to the maintenance of healthy ecosystems that aid in climate regulation.

**Integration of Climate-Adaptive Agriculture:**

Implementing climate-adaptive agricultural practices, such as crop diversification, agroecology, and the use of climate-resilient crop varieties, helps agriculture withstand the impacts of global warming. These practices enhance the overall resilience of agricultural ecosystems.

**Community Engagement and Education:**

Empowering local communities with knowledge about the role of plants in climate mitigation fosters a sense of stewardship. Community engagement and education initiatives can promote sustainable practices, afforestation, and the preservation of natural habitats.

**Advancement of Plant-Based Technologies:**

Research and development of plant-based technologies, including bioenergy production, phytoremediation, and innovative uses of plant materials, contribute to sustainable solutions for mitigating global warming. These technologies harness the unique attributes of plants to address environmental challenges.

**Mangrove Restoration:** Rehabilitating and preserving mangrove ecosystems to serve as natural buffers against storm surges and coastal erosion.

**Renewable Energy Transition:** Encouraging the adoption of renewable energy sources to reduce the carbon footprint of the community.

**Global Collaboration and Policy Advocacy:**

Advocating for and participating in global initiatives that prioritize climate action and conservation is essential. Botanists can play a crucial role in influencing policies that support sustainable land use, carbon sequestration, and the protection of plant diversity on a global scale.

This array of botanical mitigation strategies underscores the pivotal role of plants in addressing the challenges posed by global warming. Through a holistic and interdisciplinary approach, these strategies aim to unravel the web of causative factors while promoting sustainable practices that safeguard plant ecosystems and contribute to the broader effort of climate change mitigation.

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## 2

### A STUDY ON GREEN ACCOUNTING: A WAY TO SUSTAINABLE DEVELOPMENT

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#### ABSTRACT

*Green accounting is a term within the accounting field that focuses on evaluating the environmental and natural resources of a business. This approach aims to integrate the natural and environmental assets of a company into its financial statements, incorporating the environmental costs of its operations. The goal is to help businesses understand the interplay between traditional economic objectives and contemporary environmental goals. By doing so, weak sustainability can evolve into a state of full and strong sustainability for the firm.*

*This method plays a crucial role in fostering a sustainable future for upcoming generations and preserving diminishing natural resources. The popularity of green accounting has grown in response to the emergence of environmental and corporate laws that mandate adherence to Corporate Social Responsibility standards. Consequently, accounting for natural and environmental resources provides the firm with an increased flow of information for analyzing its policies, both in the short and long term.*

*While supported by environmentalists, green accounting can be perceived as a controversial practice by some businesses. This is partly because depletion is already factored into calculations through asset depreciation and depletion methods for companies involved in the extraction of natural resources.*

**Keywords** : *Environmental- friendly, sustainability, natural resources, depletion, green research and development.*

#### INTRODUCTION

The term "Environmental accounting" was coined by Professor Peter Wood in the 1980s, marking the inception of a novel branch within the field of accounting. This emerging discipline, often referred to as green accounting, is dedicated to accounting for the environment and its overall well-being. Despite being a relatively new field, its importance is rapidly growing.

Beyond the conventional metrics of assessing a company's profit, loss, revenue, and expenses, green accounting delves into the environmental impact that a business or organization may generate. The adoption of green accounting signifies a commitment on the part of an enterprise or organization towards environmental responsibility. It encompasses three critical factors: people, profitability, and the planet, while also addressing the costs and benefits associated with the environment's impact on a business concern.

Green accounting involves recognizing, measuring, recording, summarizing, reporting, and disclosing information related to corporate economic, social, and environmental activities. This integrated approach aims to provide stakeholders with a comprehensive accounting information reporting package that is valuable for both economic and non-economic decision-making. The objectives of green accounting include presenting financial, social, and environmental accounting information in a manner that enables stakeholders to evaluate and assess a company's financial position, business performance, corporate risks, growth prospects, and sustainability.

Stakeholders, including management, shareholders, creditors, customers, consumers, employees, government, and the wider community, can utilize green accounting information to make informed decisions. This information allows them to gain insights into the management quality of socially and environmentally responsible businesses, which are crucial determinants for sustaining business growth and corporate profits in the long run.

#### **OBJECTIVES OF THE STUDY**

Following are the objectives of the study.

- To know the concept of Green Accounting
- To understand the scope of Green Accounting
- To know the various forms of Green Accounting.

#### **SCOPE OF GREEN ACCOUNTING**

Green accounting involves estimation of environmental expenditures/cost, capitalization of those environmental expenditures, identification of environmental liabilities and measurement of environmental liabilities.

##### **Environmental expenditures**

Environmental expenditures is the expenses associated with environmental initiatives, covering production-related costs and research and development expenditures for the purpose of environmental protection. These costs are incurred to ensure the safeguarding of the environment. The comprehensive classification of total environmental expenditures includes six categories: capital investment, operating costs, research and development costs, environmental administration and planning, expenditures for remedial measures, and recovery measures.

##### **Capitalization of Environmental expenditures**

The justification for capitalizing environmental expenditures arises when the costs contribute to extending the life, enhancing the capacity, or improving the efficiency or safety of the company's owned property. Additionally, capitalization is warranted when the costs help mitigate or prevent environmental contamination, improve the property or resource beyond its condition at the time of acquisition, or are incurred in connection with preparing the property for sale.

##### **Environmental liabilities**

The responsibility to cover future expenses for addressing environmental damage resulting from past events, activities, or transactions, or to provide compensation to a third party affected by such damage. This may also encompass a contingent environmental liability contingent upon the occurrence or non-occurrence of uncertain future events, intended to compensate a third party affected by the related damage.

##### **Measurement of Environment liabilities**

Environmental liability can fall into two categories: quantifiable or non-quantifiable. If the liability is quantifiable, meaning its value can be accurately measured, it should be included in the balance sheet. Otherwise, if the liability is non-quantifiable, a footnote should be provided in the financial statements to explain the nature of such liability.

#### **TYPES OF GREEN ACCOUNTING**

Green accounting is classified into different types. They are explained in the following paragraphs.

1. **Environmental Management Accounting (EMA)** : Management accounting with a particular focus on material and energy flow information and environmental cost information. This type of accounting can be further classified in the following sub-systems:
  - a) **Segment Environmental Accounting** : This is an internal environmental accounting tool to select an investment activity, or a project, related to environmental conservation from among all process of operations, and to evaluate environmental effects for a certain period.
  - b) **Eco Balance Environmental Accounting** : This is an internal environmental accounting tool to support PDCA for sustainable environmental management activities.
  - c) **Corporate Environmental Accounting** : This is a tool to inform the public of relevant information compiled in accordance with the Environmental Accounting. It should be called as Corporate Environmental Reporting. For this purpose, the cost and effect (in quantity and monetary value) of its environmental conservation activities are used.
2. **Environmental Financial Accounting (EFA)** : It is the Financial Accounting with a particular focus on reporting environmental liability costs and other significant environmental costs.
3. **Environmental National Accounting (ENA)** : It is a National Level Accounting with a particular focus on natural resources stocks and flows, environmental costs and externality costs, etc.

#### **GREEN ACCOUNTING PRACTICES IN INDIA**

In accordance with the Companies Act of 2013, the industrial licensing process has been eliminated in practical terms, giving prominence to environmental clearance from state governments. Article 51A of the Indian Constitution outlines the directive principle that underscores the duty of every Indian citizen to protect and enhance the natural environment, encompassing forests, lakes, rivers, and wildlife.

Despite this constitutional directive, the actual adherence to these practices is often lacking. A significant number of firms in India do not provide sufficient information on environmental issues. Despite increased awareness of green accounting, many companies fall short in providing comprehensive information in their annual reports. The practice of green accounting has yet to gain full societal acceptance, with companies viewing it more as a burden on profits rather than a beneficial contribution to society.

#### **CONCLUSION**

In conclusion, the significance of green accounting cannot be overstated in today's business landscape. As environmental concerns take centre stage globally, businesses are recognizing the imperative to account for their impact on the environment. Green accounting goes beyond traditional financial metrics, offering a holistic approach that integrates economic, social, and environmental considerations.

The adoption of green accounting reflects a commitment to sustainable practices, providing businesses with a framework to assess and mitigate their environmental footprint. It allows for a more comprehensive evaluation of a company's performance, considering not only financial gains but also the broader implications on people and the planet. Moreover, green accounting aligns with the growing demand for corporate responsibility, meeting regulatory requirements and enhancing transparency.

By recognizing, measuring, and reporting on the economic, social, and environmental aspects of business activities, green accounting enables stakeholders to make informed decisions. Management, shareholders, customers, and the wider community can evaluate a company's overall impact, sustainability efforts, and long-term viability.

In essence, the significance of green accounting lies in its ability to promote responsible business practices, foster transparency, and contribute to a sustainable and resilient future. As environmental considerations continue to shape the business agenda, embracing green accounting is not just a trend but a strategic imperative for businesses aspiring to thrive in a socially and environmentally conscious world.

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# 3

## A DIASPORIC STUDY OF SELECTED SRILANKAN WRITERS IN ENGLISH LITERATURE- AN HISTORICAL PERSPECTIVE

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### ABSTRACT

Sri Lankan literature has been enriched and enhanced by folklore, Sinhalese, Tamil, Portuguese, Arabic, and English cultures. The country has been a home to many renowned writers of numerous genres. The global Sri Lankan diaspora communities represent the 'Sinhala diaspora,' the 'Tamil diaspora,' and the 'Burgher diaspora' or the 'Moor diaspora.' Like other diaspora Sri Lankan diaspora is also scattered or dispersed across the globe with concentration and it numbers about three million world-wide. The Sri Lankan diaspora communities are now settled in South Africa, United Kingdom, Canada, India, Europe, Australia, USA, Malaysia, Singapore etc. The migration of Sri Lankan Tamils started in fifth century. Tamil diaspora prefers to be labeled as "Elean" or "Eezham," "it is by this term that the earliest known 'Tamil emigrants' community identified itself and continues to identify itself to this day as the community of Eezhavar in south India

**Keywords:** Sri Lanka, diaspora, Sinhalese, literature, class, migration

### Introduction

Many contemporary theorists in the fields of childhood studies and psychoanalysis have researched on the relationship between children and literature. Jacqueline Rose, Karin Lesnik-Oberstein, Erica Burman, Carolyn Steedman, and Valerie Walkerdine are among the major contributors to the field. They challenge the general assumption that the child is true or self-evident, and argue that childhood is a construction. This does not mean that the reality of childhood is nonsensically denied, but thought of as shifting, historical, and psychoanalytical. Informed by their views, this study analyses the fiction of three Sri Lankan writers in English: Shyam Selvadurai, Carl Muller, and Punyakante Wijenaiké.

The main texts for discussion are

#### (a). **Shyam Selvadurai's**

(i). **Funny Boy (1994)**, Carl Muller's *The Jam fruit Tree* (1993), *Yakada Yaka* (1994), and *Once Upon a Tender Time* (1995), and Punyakante Wijenaiké's *Amulet* (1994). Situating these authors in the post-independence Sri Lankan literary scene, I argue that their works negotiate notions of ethnicity through constructions of childhood. My reading focuses on how these texts produce notions of ethnicity through narrative investments in children: Selvadurai's novel examines the perceived marginalisation of the Tamil community and homosexuality through its protagonist Arjie; Muller's fiction deals with the hybridity of the Burghers as descendents/children of European colonisers and the colonised locals; and Wijenaiké's work examines the constructions of a majority Sinhalese identity through discourses of family and development.

Shyam Selvadurai is a Sri Lankan-Canadian writer who is of mixed Tamil and Sinhalese parentage. He was born in Sri Lanka in 1965. Now he has been living in Toronto

since 1983. At the age of nineteen he migrated to Canada in order to escape the ethnic riots in Sri Lanka. Most of the Selvadurai's novels take place in Sri Lanka. Selvadurai has successfully shared the heritage of his colonial past and ethnic conflict of his country through his novels. Canada play very minor role in his work though he lives in Canada from last 30 years.

(ii). His second novel **Cinnamon Garden** (1998) is set in 1920s Sri Lanka depicting the closing years of colonial rule. It is historical in nature telling the story of Annalukshmi, a school teacher who struggle to find herself and her uncle Balendran a man in his middle ages. In the novel Selvadurai has presented the world of quiet racism and upper class thinking of Ceylonese people as like British rulers.

(iii). Selvadurai in his third novel **Swimming in the Monsoon Sea (2007)** portrays the life story of 14 year old boy Amrith. He is the protagonist of the novel and known for his gay identity. The novel is set in Sri Lanka against the backdrop of civil war and focuses on how sex affects the life of men and women. The novel is finalist for Governor General's Literary Award and also the Silver winner, Young Adult Category of Foreword Magazine's Book of the Year Award.

#### **Justification or Rationale**

Much of the criticism available on the fiction above has so far bypassed theoretical engagement with the notion of childhood; while focusing on the themes of ethnicity and sexuality, these studies often do not question the function of the child within the texts. Such analyses take the child's point of view for granted or assume it to be conveying the truth about the Sri Lankan context. While many Sri Lankan novelists have engaged with issues pertinent to ethnicity, Selvadurai, Muller, and Wijenaikie were selected for discussion primarily because of the child perspective. The constructions of childhood in their texts yield well to a comparative analysis: children are posited as spokespersons, observers, and victims' among other things, and I examine the implications of such investment in children within these narratives and its significance to the production and consolidation of ethnic identity.

#### **The Writers of the Sri Lankan Diaspora:**

The Sri Lankan diasporic writers are spread across the globe and they have created significant migrant population in Australia, Asia, Europe and North America. These writers share their point of origin as Sri Lankan, and are refracted according to the varied diasporic locations in which they live and write. Sri Lankan diaspora is splitted ethnically across the globe due to the ongoing histories of the ethnic violence on the island. In this connection Peter Reeves quotes Stuart Hall as:

Moreover, the continuing histories of violence in Sri Lanka, the ethicized splitting of the diaspora as a mirror of nationalist politics, the various concepts of homeland in the Sri Lankan diasporic imaginary, as well as the multi-racial, cultural and gender politics in diasporic spaces all become the 'unstable points of identification and suture' that enable Sri Lankan writers to offer fresh perspectives on and from the diaspora.

The Sri Lankan writers which constitute the Sri Lankan diasporic literature are Rienzi Cruz, Yasmine Gooneratne, Romesh Gunsekera, Chandani Lokuge, Michael Ondaatje Shyam Selvadurai and Ambalavaner Sivanandan and so on. It is seen that all these diasporic writers show variation in exploring and presenting the diasporic concerns such as memory, identity and home. The group of diasporic writers such as Bandula Chandraratna, V. V. Ganeshnathan, Michelle de Kretser, Ernest MacIntyre, Mary Anne Mohan raj, Leah Lakshmi Piepzna-Samara Sinha, Shiromi Pinto, Karen Roberts, Shobasakthi, Roma Tearne, Marian Yalini, Thambynagayamaka, Yalini Dream, and their literary work is understood in terms of rapid global changes. The Sri Lankan diaspora writers reveal the modes of belonging and inheritance with the help of their imagination. Their writing is inspired by the ethnic, gender or class struggles which are the characteristic of their origin. They present their homeland through their writing. Therefore it is necessary

to study some Sri Lankan diaspora writers, especially novelists and the modes of their writing.

**(b). Punyakante Wijenaikē**

Punyakante Wijenaikē is known for her unique style of simple yet intense narrations. She has published six novels and four collections of short stories, with more than 100 stories published in newspapers, journals and anthologies locally and globally. She focuses on the hardships and struggles of village life. Her 1998 novel, *An Enemy Within*, uncovers 'the masks that tend to hide the reality of present times'. The Gratiaen Award for her novel *Amulet* in 1994 was significant among her achievements.

**(c). Yasmine Gooneratne:**

Yasmine Gooneratne is Sri Lankan Australian diasporic writer, born in Sri Lanka's well known Bandaranaike family in 1935. She is a university professor, literary critic, editor, biographer, bibliographer, novelist, essayist, short story writer and a poet who has educated at university of Ceylon and Cambridge. She has published number of books on various literary genres and shortlisted for various international awards. She has been a visiting professor at different universities across the globe. Her work includes *Critical studies of Jane Austen*, volumes of literary essays as well as poems, short stories, a family memoir and novels.

- ❖ **Her first novel:** *A Change of Skies* (1991) explores the theme of immigration and assimilation into the host land. The novel juxtaposes Sri Lankan and Australian culture. It revolves around the life of Bharat, a young Asian Linguistics expert and his wife Navaranjini's short term visit to Australia as a visiting professor. They face the problem of cultural clash and problems faced as a new comer in strange land. This novel is shortlisted for commonwealth prize and received "Marjorie Barnard Literary Award" in 1992.
- ❖ **Gooneratne's second novel:** *The Pleasures of Conquest* is published in 1995. It deals with the relationship between East and West, the era in the increasing nationalistic currents in Sri Lanka. It also portrays the impact of British colonial rule over the Ceylonese community and various aspects of immigration. It focuses on the historical as well as contemporary relationship between Europe and Asia.

**(d). Nihal de Silva:**

Nihal de Silva was a Sri Lankan well-known novelist, mainly recognized for his love about wild life, which is reflected through majority of his work. Nihal de Silva was killed by a landmine explosion at the Wilpattu National Park on May 28, 2006.

Nihal de Silva's debut novel *The Road from Elephant Pass* is an action thriller novel published in 2003 in English as well as in Sinhala. The novel is based on the themes of war and survival. The novel is a great resource of number of techniques useful for surviving during the complicated situations. It is based on the war conflicting situation in Sri Lanka during the civil war. It depicts the racial conflict in the life of Wasantha and Kamala who are lovers. In this love story of Captain Wasantha Ratnayake and Kamala Velaithan, the members of LTTE, fall in love with each other though they belong to different races and ethnicities. What follows is a story of their tragic love affair and happy ending of their marital life in foreign land.

Many birds like hawks, eagle-owls, hornbills, brown-headed barbets, parrots are the part of the novel. The novel is adapted for film in 2008, and it is directed by Chandran Rutnam. It is an action thriller film. In 2003 Nihal de Silva awarded for this novel by 'Gratian Prize' for creative writing in English. He also won the 'State Literary Award' for the best novel of the year 2003.

*The Far Spent Day* is his second novel which speaks about political corruption in contemporary Sri Lanka. It explores the contemporary Sri Lankan politics, misuse of power by politicians and ethnic violence in the country. Ravi the middleclass family boy is the

protagonist of the novel. He is assaulted by the Government Minister's son. Ravi's family decides to seek justices.

**(e). Michael Ondaatje**

Michael Ondaatje is a Sri Lankan born Canadian. His work includes fiction, autobiography, poetry and film. He has published 13 books of poetry, and has won voluminous awards for his works.

His novel, *Anil's Ghost*, was the winner of the 2000 Giller Prize, the Kiriya Pacific Rim Book Prize, and the Irish Times International Fiction Prize 2001.

His renowned novel, *The English Patient*, notably won the Booker Prize, the Canada Australia Prize, and the Governor General's Award.

It was later adapted as a film, which won the Academy Award for the Best Picture in 1997. Michael Ondaatje is known for his distinctive writing style which he blends into both prose and poetry.

**(f). Romesh Gunesequera:**

Sri Lankan born British novelist Romesh Gunesequera is grown up in Sri Lanka and Philippines. He has been living in Britain since 1970. He has bagged number of awards including the inaugural BBC Asia Award for achievement in Writing and Literature (1998); Premio Mondello Five Continents Award (1997); and the Yorkshire Post Best First Work Award (1995).

**(i). First novel**

His first novel *Reef* (1994) is shortlisted for the Booker Prize for the fiction. *Reef* is a culinary novel which highlights Sri Lanka's cuisine. The story is narrated by a young boy who after all becomes a cook for Mr. Salgado, a marine biologist. It depicts how, the political tensions in Sri Lanka finally lead to Triton's and Mr. Salgado's emigration to England. This collection of short stories reflects the imaginative vision of Gunesequera and explores home through the migrant frame of a memory. Gunesequera effectively situates the disconnectedness of views and the identity of diasporic subject in the violence and conflict which dominates Sri Lanka.

**(ii). Second novel**

Gunesequera's novel shows romantic or nostalgic attempt and it encompass Sri Lanka's colours, tastes and sounds. His second novel *The Sandglass* (1998) addresses the issue of search for personal as well as national belonging. It is written when the violence in Sri Lanka is at the height. The novel tries to bridge between Sri Lanka and England. *The Sandglass* is the winner of the inaugural BBC Asia Award.

**(iii). Third novel**

Gunesequera's third novel *Heavens Edge* (2002), describes the story of protagonist's journey from England to his ancestral homeland in search of his roots. Marc the narrator's / hero's longing or personal quest to reunite with his lost love. According to Marc, he is a man, 'in search of himself.' After all at the end of the novel Marc is succeeded in tracing his roots.

**(iv). Fourth novel**

Romesh Gunesequera's fourth novel *The Match* (2006) depicts the story of Sri Lankan expatriate Sunny Fernando, the protagonist of novel and his expatriate life, his visit to Sri Lanka. The novel traces Sunny's passion for cricket from childhood to teenager and as an adult from Colombo, Philippines to Britain respectively. In his latest work *The Prisoner of Paradise* (2008) Gunesequera portrays an enticing story of young lovers for freedom and for the quest of identity.

**(g). Shehan Karunatilaka**

Intriguing, spirited and strikingly original, Shehan Karunatilaka's *Chinaman* is a novel about Sri Lanka and her love for cricket. It was hailed by the Gratiaen Prize judges as 'one of the most imaginative works of contemporary Sri Lankan fiction'.

This irresistible work has been honoured with 'Overall Commonwealth Book Prize' and was also selected by British bookseller, Waterstones, as one of the top debuts of 2011.

His maiden novel, *The Painter*, was shortlisted for the Gratiaen Prize in 2000. Shehan's writings showcase an original flair and a blend of absurdity, emotions, and powerful storylines.

Sri Lankan literature is an arcane ocean. These selections of the country's best fictional writers provide a brief glimpse into the vast talent puddle of Sri Lankan writings.

**(h). Karen Roberts:**

Karen Roberts was born in Sri Lanka in 1965. Now she lives in California. She works in the field of advertising. Her novels are translated into number of other languages such as Portuguese, Dutch, etc. Karen Robert's debut novel *Flower Boy* is published in 2000. It is a romantic and tragic story of cultural conflict between two cultures. Her second novel *July 34* (2002) speaks about the ugly reality of war, communal violence and revenge. It portrays the description of the July riots very realistically. Niranjan and Priyanthi is the representative of Tamil- Sinhala violence. Anita Nair rightly comments on the novel as:

Karen Roberts draws a chilling and moving picture of a hot July day when Colombo explodes into a frenzy of madness. So that when you put the book down and take a deep breath to exhale the horror away, you realize the green truth that Karen Roberts has been hinting at all along...that all violence racial and otherwise is rooted in personal animosities and vendetta. (Book Review by Anita Nair)

Her third novel *The Lament of the Dhobi Woman* is published in 2010 in Sri Lanka. It explores the issue of class difference in Sri Lankan society.

**(i). V.V.Ganeshanathan:**

V.V.Ganeshanathan is a fiction writer, a journalist, editor, essayist a former vice president of the South Asian Journalists Association. She is a Sri Lankan - American writer. She was the visiting professor of Creative Writing at the University of Michigan. Her work is appeared in *Granta*, *The New York Times*, *The Atlantic Monthly*, *The Washington Post*, *Ploughshares* and the *Best American Non required Reading 2014*. She is the award winning writer of *Love Marriage* and the founding member of *Lanka Solidarity* and member of the Board of Directors of *American Institute for Lankan Studies*. She has started to write *Love Marriage* as a part of her senior thesis at Harvard University. V.V. Ganeshanathan's debut novel *Love Marriage* (2008) is set in Sri Lanka and about the diaspora communities. It is the story of a family of the Tamil diaspora from the point of view of daughter Yalini who is born to Sri Lankan parents in New York on July 23, 1983. She is growing up as a member of a diaspora community in North America who finds her and her family's origin.

The novel depicts her sorrows of origin, in-betweenness, her neither nor condition. She is neither American nor Sri Lankan. This is the story of cultural conflict and identity crisis of Yalini and the many of first generation Sri Lankan diaspora members. In spite of the migration, two Tamil Sri Lankan families are connected with each other with tradition and marriage. Even in host country Yalini feels attachment towards her native land Sri Lanka. She is caught in-between conditions and reunites with her maternal uncle Kumaran who is Canadian immigrant and a former militant. The novel pursues the life of Yalini from America to Toronto.

**(j). Ru Freeman:**

In her debut novel *A Disobedient Girl* (2009), she explores the lives of two Sri Lankan women Latha and Thara who dreams of independence and their struggle for freedom. The novel is set against the backdrop of class and prejudice in Sri Lanka and the affects of class system on personal relationship. It is a deeply moving story of Freeman's native land Sri Lanka's conflicting war years. She has created flamboyant and instinctive world. Latha a servant girl is of the same age of Thara Vithange. Thara is the daughter of wealthy family and Latha works in Thara's house from her age of five. Both the girls grow

together as like friends. Freeman paints the picture of class difference of two girls and their struggles. It is also a map of womanhood, its longing and loyalties.

### **Conclusion**

The history of Sri Lankan English Literature needs to be focused with details. Sri Lankan writing in English is originated much earlier; one may trace its roots into long back before Sri Lanka has gained independence from Britain. But it is true that only after the independence the literature of significance is written. Literature written before the independence was not very admirable or rewarding one. It is produced in the form of books and in newspapers and journals also. The Sri Lankan art council has attempted to encourage Sri Lankan writers to write in English by offering prizes for writing in different genre. Sri Lankan English literature refers to the mass of literature written in English by the writers in Sri Lanka.

Naturally, earlier works in the Sri Lankan canon have been significantly influenced by the styles prevalent in the rest of the Indian subcontinent, but alongside these there has developed a considerable volume of authentically “local” literary works reflecting on kings and significant historical events as well as the lives of ordinary folk. This archive of work holds innumerable potential for a very personal encounter with Sri Lankan literature.

Tamil literature is similarly inspired by works from centuries past, but has the added advantage of being able to draw from the literary traditions of the South of India where the language is spoken too. The literary history of Tamil writers in Sri Lanka is far less voluminous than that of their Sinhala counterparts, due partly to a fractured historical presence on the island and the absence of an equivalent temple-based system of education, but the oral traditions cannot be said to be any less rich.

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# 4

## WOMEN EMPOWERMENT IN INDIA: MILESTONE AND CHALLENGES

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### ABSTRACT

Women's empowerment is currently the main focus of attention from researchers, governments and industry players. Of the 1.3 billion people who live in absolute poverty around the globe, 70 per cent are women. For these women poverty doesn't mean scarcity and want. It means rights denied, opportunities curtailed and voices silenced. In many societies around the world, women never belong wholly to themselves. They are the property of others throughout their lives. Their physical well-being, health, bodily integrity is often beyond their own control. Thus empowerment of women is the need of the hour. The goal of women's empowerment are to challenge patriarchal ideology (male domination and women's subordination); transform the structures and institutions that reinforce and perpetuate gender discrimination and social inequality, and enable women to gain access to and control both material and informational resources. Successful empowerment strategies also require the direct involvement of women in the planning and implementation of projects.

**Keywords:** Economic empowerment, job profile, regularisation technique, unemployment, rural-urban women, women's participation, women's empowerment, gender, welfare, strategy.

### Introduction

Women empowerment in India is one of the foremost terms for society's overall development. It guarantees Holistic Development of society. There is nothing erroneous in participating in the development of society. In the arena of corporates, women are playing numerous roles in meadows such as medical, engineering, and so on exceptionally. Women play an important role in the development of a country. It has been suggested that adequate education and job prospects can play a vital role in endowing the women. Moreover access to media specifically TV can also empower women in a significant way. In rural India, many important features, such as equity and inclusiveness, have been overlooked for many decades. Even though women constitute nearly half of the total population in India, they are often exempted from local participation and public representation.

According to an officer at Sinapi Aba Trust defined empowerment as "enabling each person to reach his or her God-given potential". Some clients have used the terms self-reliance and self-respect to define it. "Developing a sense of self-worth, belief in one's ability to secure desired changes and the right to control one's life" are important elements of women's empowerment. Empowerment is an implicit, if not explicit, goal of a great number of microfinance institutions around the world. Empowerment is about change, choice and power, it is a process by which individuals or groups with little or no power gain the power and ability to make choices that affect their lives. Empowering women involves granting those tools, opportunities, and autonomy. It is essential for rectifying historical

discrimination and ensuring fairness. Education plays a pivotal role in women's empowerment. .

The Indian Constitution affords for the principle of gender equivalence in its preamble, and women's equality provided as a fundamental right. The constitution places obligations on the state to foster the same as part of its fundamental duty and to provide a definitive direction through well-thought out policies and directions. However, there is still a long way to go even after more than seventy years of independence. Each day, the media is full of stories of atrocities against women. These issues are concentrated more in areas and communities that still accept the age-old concept of male supremacy. The social and economic structure in rural India has not changed much over the years. The gender disparity, especially in rural India, is a glaring and grim reminder of the still rampant problem of gender discrimination. Women still have issues concerning financial exclusion and the lack of education opportunities, medical care, sanitation facilities, and more. To address the issue of women's equality and uplift their social status, the Government of India has made a concerted effort by way of laws, plans, and programs in various spheres, with the realization that the way forward is to shift the focus from welfare to development. Thus women's empowerment has gained appreciation as the core issue in elevating the status of women.

#### **What are the challenges of women empowerment?**

The level of women education is less than men still in the modern age. Female illiteracy is higher in the rural areas. More over 63% or more women remain unlettered. It is like common and widespread disease affects almost 70% of Indian women according to the women and child development. Women often face wage disparities and limited economic opportunities, impeding their financial independence and contribution to society. Violence against women, gender-based violence, including domestic abuse, sexual harassment, and human trafficking, poses a significant threat to women's safety and empowerment. The empowerment and autonomy of women and the improvement of their political, social, economic and health status is a highly important end in itself. In addition, it is essential for the achievement of sustainable development.

Governments should take every possible action to remove all gender gaps and inequalities pertaining to women's livelihoods and participation in the labour market through the creation of employment with secure incomes, which has been shown to advance women's empowerment and enhance their reproductive health. Gender inequality reinforces many problems which disproportionately affect women and girls, such as domestic and sexual violence, lower pay, lack of access to education, and inadequate healthcare.

#### **How can we solve women's empowerment problem?**

There are ways in which we can continue to break down barriers and empower women across the world to achieve the opportunities they are entitled to:

- ❖ Get more women in global leadership goals.
- ❖ Empower entrepreneurs in developing countries.
- ❖ Teach business skills to women.
- ❖ One woman talking to another woman sits down write on pad their opinion.

"**We can do it**" – This iconic phrase was first introduced during World War Two; next to the infamous image of a women in overalls ready to work. Until this day this image has symbolized solidarity and empowerment for women.

So 75 years later what exactly are we doing to help empower women to go out and 'do it'?

Although many may argue that women have come a long way in becoming empowered, there is still progress to be made. Here we highlight six ways in which we can continue to break down barriers and empower women across the world to achieve the opportunities they are entitled to. Get more women in global leadership goals as both

business and political leaders, senior women regularly challenge conventional wisdom in their approach to leadership.

Research suggests that the most powerful and attractive symbolism of women leaders is the hope that they will bring significant change. When a woman is chosen as the first woman to become the most senior leader – the president, prime minister, or CEO, people begin to believe that other more substantive and less symbolic changes are also possible. Empower entrepreneurs in developing countries, micro and small business enterprises (MSEs) have empowered women in developing countries through enhancing their decision-making in the household and the community. Evidence suggest that MSEs have strengthened women’s bargaining power in decision -making on family resource access to use and control and income allocation and expenditure of household resources. Teach business skills to women. Research undertaken by the cooperation Vietnam Women’s Union and Peace Trees found that business training can increase performance in microenterprises and improve motivation, success, trust, and perceptions of women entrepreneurs. Encourage more women to take trainee roles. A recent survey has highlighted the need to encourage more young women to take traineeship roles, especially in male dominated industries. The survey found that more could be done to support women taking on apprenticeships and to achieve such changes support structures for women and girls should include mentors, networks and female-friendly workplaces.

Create a better environment for career development. Research findings indicate that there is a need for better career development guidance and support for women. Getting women managers to senior executive and board level can partly be achieved by women taking more responsibility or ownership for their own career development. However, alone, that is unlikely to be enough –organizations therefore need to take a decisive, agentic role in creating a better organizational culture for women.

The government is currently trying to realize the welfare of families and communities through empowering women. Efforts made by the government to realize this goal, namely by fully committing to gender equality, to create equality of conditions for women and men in obtaining opportunities and rights, in order to play a role and participate in educational activities, economics, politics, socio-culture, defence security and getting equal treatment in enjoying development. For this reason, efforts are needed to synergize gender equality and justice policies integrally in development. Because it departs from the fact that the role of women in the fields of education, health, social culture, politics, law and the economy is still low. The impact is on decreasing the quality of life of women.

Four power viewpoints that are used to explain the increasing need for women's empowerment today. The concepts related to power, agency, resources, and accomplishments are used to explain and describe the problems related to women's empowerment universally.

The development of increasing the capacity of these women will certainly cause a shift in values and patterns of family life. For example, the most prominent symptom is the increasing number of women who choose to work not merely because of economic demands but they want to satisfy their personal needs. Starting from this opinion, it can be explained that social responsibility should not only be focused on men, but women also have balanced social responsibility. Therefore, with the equality of duties and obligations played out, in facing the global challenges Indonesian women must play a domestic and public role in a balanced manner.

Based on the background described, the dimensions and problems related to women's empowerment reflect that the main obstacles are lack of participation, injustice, still lack of assistance from the government and the community and lack of responsibility for women's empowerment and backwardness. Various issues related to women's studies, most of which raise important issues regarding changing perceptions. Previous relevant

research also discusses women's contributions to society and their needs in the context of modernization, as well as the development of social change. Strength perspectives are used to explain the increasing needs of current women's empowerment and policy strategies by suggesting holistic ways of empowering women in the context of their role in improving welfare. The concept is related in how to create a strategy for empowering women in the economic, social, political and legal fields, to improve their role in families and society.

#### **Historical Milestones in Women Empowerment**

Historical milestone in women empowerment was the adoption of the Universal Declaration of Human Rights in 1948, which recognized the equal rights and dignity of all human beings, regardless of gender. 1948, Women protest for their right to vote. From the courageous women who fought for the right to vote during the Independence movement to the historic moment in 1956 when the Hindu Succession Act granted daughters equal rights to ancestral property, the trajectory has been one of progress.

March is recognized as Women's History Month, but the fight for gender equality in the United States is one that continues to this day. Women have made massive strides, earning the right to vote and own property, achieving higher education and leadership positions in the workplace, and we even have our first woman in the White House as vice president. However, there is still much to do in terms of protecting reproductive rights, supporting women of colour, recognizing the importance of women, ending violence against women, and other endeavours. While we continue to work towards a more equitable future, it's the perfect time to review some milestone moments in the women's rights movement.

However, as we celebrate these victories, it is impossible to ignore the stark realities that persist. A fundamental roadblock that hinders the realisation of women's rights is the lack of confidence and resources that many women face while trying to spread their wings and leverage opportunities. Rising to the occasion, women display a remarkable ability to excel at anything and everything they pursue, owing to their innate multitasking skills. Time and again, they have demonstrated their competence as effective leaders across diverse sectors. Being traditionally entrusted with managing the household has hard-wired women generation by generation to excel at multitasking. Managing chores, finances, complex relationships, and expectations - all at once - is essentially entrepreneurship as we know it today. What can truly empower women is their own willpower and determination - their willingness to step out of their comfort zone and take control of their lives.

Women's political participation has been considered a major measure of women's empowerment. Globally, through histories of the world we have records of very few regents, sovereigns, and active agents in nobility who were women. Champions of liberalism like John Stuart Mill had advocated women's participation in governance by the struggle for women suffrage in the self avowed liberal west very well illustrates the entrenched nature of Patriarchal resistance to women's empowerment. In the last century more women heads of state could be counted in Asia as compared to Europe and the struggle for women suffrage in India was physically less violent but this is not reflective of greater acceptance of women in decision-making in public spaces.

Especially in rural India, challenges are more acute due to a pervasive patriarchal mindset, limiting women's potential. Legal frameworks exist, but implementation lags, emphasising the need for comprehensive support systems. Therefore, dismantling stereotypes is crucial for creating an environment where women can freely explore, dream, and achieve. Breaking free from these shackles requires women's own determination, confidence, and a seal to make a difference.

The future must recognise women based on merit, irrespective of gender. Educational initiatives should reach every corner, empowering girls with knowledge and skills. It envisions a future where every girl, regardless of location or social standing, can shape her destiny.

The journey toward women's empowerment in India is imbued with a history of remarkable milestones. From the courageous women who fought for the right to vote during the Independence movement to the historic moment in 1956 when the Hindu Succession Act granted daughters equal rights to ancestral property, the trajectory has been one of progress. The Preamble of the Indian Constitution itself promises justice, liberty, equality, and fraternity for all citizens, regardless of gender. These milestones signal a future where women stand shoulder to shoulder with their male counterparts.

### **Conclusion**

Heading towards the future of women's rights in India requires a vision surpassing present challenges. Collective vow is essential for furthering women's rights and gender equality. The road ahead demands unwavering determination, driven by the belief that an empowered future for every woman in India is not just a possibility but an inevitability. It pictures a world celebrating women's resilience, hearing their voices, and acknowledging their contributions. Research suggests that the most powerful and attractive allegory of women leaders is the hope that they will bring significant change. When a woman is chosen as the first woman to become the most senior leader – the president, prime minister, or CEO, people begin to believe that other more substantive and less symbolic changes are also possible. Therefore, greater attention needs to be paid to the development of the sector in general in promoting women owned micro and small enterprises in the continent and ensure women's economic empowerment as a way to reducing poverty and promoting growth.

Research findings indicate that there is a need for better career development guidance and support for women. Getting women managers to senior executive and board level can partly be achieved by women taking more responsibility or ownership for their own career development. However, alone, that is unlikely to be enough – organizations therefore need to take a decisive, agentic role in creating a better organizational culture for women.

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# 5

## **SOCIAL NETWORKING SITES ARE CHANGING ENVIRONMENT IN ACADEMIC LIBRARIES- AN OVERVIEW**

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### **Abstract**

The rapid rise of social media provides numerous possibilities for academic institutions to use it to extend its learning and teaching endeavors. Academic Library Users Social networking sites could be effectively used to disseminate information and promote pleasant professional relationship among librarians and library users. It encourages academic collaboration. This media improved teacher learner communication, out of the class sharing of information and knowledge resources and improved delivery of education. It has also improved sharing of learning resources in rural areas and difficult hilly terrains. Because of wide spread accessibility from mobile phones, use of social media for sharing scholarly information is on the increase. It has improved connectivity among learners, increased participation and collaboration and sharing of information including text, pictures, audio, video, etc.

**Keywords:** Face Book, Twitter, Library, Social Networking, Reference Service, YouTube, Flickr, Blog, Web 2.0 Technology.

### **Introduction**

Social networking site should be introduced to attract them to the library environment. Social networking sites would help establish a cordial relationship between librarians and patrons; market the library's services Social networking website provides great opportunities for Library professionals to interact with their users as it places them in the digital social space of their users. Library professionals can get first hand information about the user through interacting with them. They can then understand the behavior of the user and design services to meet the needs accordingly. Social networks are a great way to test your commitment to open communication.

The changing technology, explosion of information and the transition of academic libraries from print to electronic have influenced the user behaviour. Most of the libraries, especially academic libraries are continued to be hybrid (print and electronic) libraries. Compare to other libraries, academic college libraries need special attention in developing collection, systems and services, keeping the needs and information seeking behaviour of the users. The present study has undertaken a survey for assessing the exiting situation, perception and expectations of users in academic college libraries in India. Imagine a time when social network media becomes an integral part of life. In fact, there is no need to imagine anymore, as Face book and Twitter use soars beyond the combined total of 900 million users. Social network media is now main stream. Many businesses, cultural organizations and other institutions are leveraging social network media to achieve their strategic goals.

**Some of the social media websites:**

- ❖ Social Bookmaking. (Del.icio.us, Blink list, Simply)Interact by, tagging websites and searching through websites bookmarked by other people’s) Social News. Interact by voting for articles and commenting on them
- ❖ Social Networking. (Face book, Hi5, Last.FM) Interact by adding friends, commenting on profiles, joining groups and having discussions.
- ❖ Social Photo and Video Sharing. (YouTube, Flickr) Interact by sharing photos or videos and commenting on user submissions.
- ❖ Wikis. (Wikipedia, Wikia) and also MySpace, Facebook, Hi5.Friendster,Orkut, Bebo and Tagged Interact by adding articles and editing existing articles.

Table 1 :- Date of Launching of various social Networking Media

YEAR OF LAUNCHING	NAME OF SOCIAL NETWORKING MEDIA
1995	Wiki
1997	Weblogs
1999	MSN messenger
2003	LinkedIn, MySpace, Delicious
2004	Flickr, Face book (not open to all)
2005	YouTube, Windows Live Messenger(re launch of MSN messenger)
2006	Twitter, Face book (open to all) slide share

**Benefits of social Network in Academic Libraries**

The real utilization of social media is based on active human networks. Technology is an enabler; one should have IT literacy skills, its social dimensions and where to use know-hows. Creation and application of knowledge are only possible when collaboration, communication, and consolidation happen. The following are some of the key benefits of social network in academic libraries:

1. To identify the individuals, teams, and units who play key roles in academic activities.
2. To contextualize knowledge and to make out opportunities to accelerate knowledge flows across functional and organizational boundaries.
3. To form study groups, encourage research based projects and even help with academic support for distance education.
4. To strengthen the efficiency and effectiveness of existing, formal communication channels and improving library’s weaker areas

**Review of Literature:**

- In the Huang study, Taiwanese students’ online habits were studied longitudinally over a two and a half year period, with little change in their usage of MSN messenger, email or chat room usage, possibly indicating that the technologies had been adopted to saturation levels, and that further development of the software is required to ensure its further growth.
- BarskyandPurdon (2006), on the other hand, pointed out that social networking websites collect data aboutmembers and store user profiles that are meant for sharing. These websites are offered for free andallow users to create personal pages filled with content like images, music and videos easily. Thesesocial networks also allow members to share web pages with friends and search for new friends whohave similar interests.
- Seufert et al (1999) defines social networking in terms of knowledge networking assignifying a number of people, resources and relationships among them, who are assembled in order to accumulate and use knowledge primarily by means of knowledge creation and transfer processes, for the purpose of creating value. The concept of social networking is one of the tools of Web 2.0, which also forms the basis of library 2.0.

### **Objectives**

This study has been conducted keeping in view the following objectives:

- To find out the Academic libraries' websites which have social networking/ web 2.0 application; and
- To identify types of web 2.0 technology that is applied in central universities libraries' websites.

### **Social Media Networking and Teaching**

The social networking literate librarian is capable of teaching these skills to library patrons and peers. This includes guiding and training patrons through targeted aspects of social networking sites that arise in their use as resources and tools, teaching about the use of social networking sites for scholarly purposes, and teaching faculty and instructors about the role of social networking sites and considerations for issues affecting their students' work.

- Social networking sites are extremely popular across age groups and are central forums for accessing and sharing information.
- LIS Professionals are responding to the popularity of social networking sites and their expanding role in the creation, use, and sharing of information by engaging them as a central medium for interacting with library patrons and providing services to meet their information needs.
- Especially in this digital Environment academic LIS professionals need a new branch of skill sets specific to utilizing and leveraging social networking sites to provide quality services and maintain their role as information experts in a Web2.0 world.

The skills for interacting with patrons within the sites, understanding and articulating the nature of social networking sites and their potential roles related to library services, creating presences and content, evaluating and applying information, and having the ability to assist patrons with gaining and applying these skills.

### **Application of Social Media in Academic Libraries content communities**

Library encourages to share on some particular kind of content. They differ according to the type of content (text, photos, videos, power point presentations, etc.) they share. Some of them have earned a great popularity as it is capable of content organization and sharing. As for example,

- Text Sharing—Book Crossing.
- Photo Sharing—Flickr, Picasa, Photo Bucker.
- Video Sharing—YouTube, Daily Motion, Metcafe.
- Presentation Sharing—Slide Share, Prezi, Scribd.

### **Social Networking**

**(i). Myspace:** - Here library users can use html to customize their profile and they can add new graphics and videos on it.

**(ii). Face book:** -With the help of Face book, library users can be informed with different upcoming events and share the information about their new arrivals and editions of books. Face book mainly helps in marketing of services and products. Photo can be tagged through the use of it. Ask-A –Librarian service can be exploited by using it.

**(iii). Twitter:** - Twitter is a free social networking used to send and read messages known as tweets. At present librarians share all kinds of news regarding library through the use of twitter. Librarians can highlight new materials, new groups, meetings and more with some of these suggestions through twitter.

**(iv). LinkedIn:** - It is a professional networking site. It can be used by the librarians to create professional connections and to market library services among other library professionals spread all over the world and can also share their ideas and professional experiences.

**(v). WEB 2.0:-** The term was coined by Darcy DiNuccie in 1999 and the term was popularized by Tim O'Reilly<sup>4</sup>. The term includes weblogs, wikis and syndications. It is nearly synonymous with social media.

**(vi). Blog:** - Libraries can use Blogs to keep their users aware with the latest developments in the field of library related matter. Blogs can be subscribed through RSS feeds. Blogger and Word Press are the examples of blog. In addition to this blog can be used as follows—

**(vii). Wikis:** - The most recognized wiki is Wikipedia. A few other wiki services are wikia, wiki how, wiki dot, Wikimedia, wiki news, PB works.

**Use of Social Networking Sits in the Libraries**

Many libraries are using social networking platform to interact and reach out to their patrons or clients. It has also become a level playing ground for academics and students to interact on issues pertaining to course work. Students also use this platform to share information amongst themselves on any subject and topic. The use of these tools has been affirmed by Bell (2007), that Academic libraries do not only use social media for communication purposes, but had adapted their research strategies to this environment. Libraries with social networking wall. The walls are mostly used to:

- Announce programmes of the library
- Give students the opportunity to ask questions pertaining to the use of the library
- Teach basic search tools
- Paste new books on the wall to inform the University Community
- Send brief updates to patrons
- Ask a Librarian

Academic Libraries can also respond to the needs of modern day patrons by applying efficient technologies such as social networking, mobile application, and online check in/check outs to their service delivery. These developments in the operations of library service delivery should encourage libraries to reinvent itself to respond adequately to this call by investing in technologies that have direct effect on the operations of the library. To achieve this, libraries must upgrade library staff skills in information Technology (IT) so as to be able to understand and use Social Networking sites to their maximum.

**Social Networks and its Possible Implication in Academic Libraries**

Social media sites become one of the massive online platforms in the world for sharing real time information. Academic libraries are now engaged on social media in order to connect with diverse community groups and move beyond the traditional bounds of the library. The need of the hour is how best LIS professionals can exploit the disruptive changes for the societal benefit. In the US libraries have been using social media tools to connect with users and to market programs and services. It is observed from the literature that the most frequent type of postings in social media was related to announcing upcoming events held in libraries.

Posts about community news or emotionally inspiring messages elicited much engagement from users and posts having an image or images tend to receive more user engagement. Facebook use by libraries falls into five areas of interest; "how-to" kind of studies, library-centered case studies, student-based research, service-provided analysis and perceived-use study. Academic Librarian can make use of social networks in three ways,

- A. **Information Communication:** By using social media platforms academic librarian can keep constant touch and effective interaction with teaching faculty, students and research scholars in online collaborative environment. MySpace, Facebook, Ning, Blog, LinkedIn and Twitter are some of the best applications for information communication.
- B. **Knowledge Organization and Access (KOA):** Social software can help professionals in KOA environment for getting handy information which can be accessible with the web 2.0 social networking technologies. For example, aNobii, it helps book lovers to

share reviews and recommendations. It also prepares due date alerts, lending, and discussions. Delicious - it uses a non-hierarchical classification system in which users can tag each of their bookmarks with freely chosen index terms. Netvibes, Library Thing and Librarians are other examples.

- C. **Information Dissemination:** Information sharing is the major part and crucial area where LIS professionals should think seriously while considering and designing library activities in digital environment. End user satisfaction should be given first and foremost priority by providing right information at the right time in a right way from anywhere. Some of the critical tools used for information distribution are; Flickr, YouTube, Teacher Tube, Second Life, Wikipedia, Footnote, Community Walk, SlideShare and Digg.

#### **Role of Librarian while using Social Media in Libraries**

Due to advent of internet, the librarian of the 21st century, popularly known as Librarian 2.0, can understand the web users deeply in terms of their goals and aspirations, workflows, social and content needs, and more. Librarian 2.0 is where the user is, when the user is there. For the utilization of social media, a librarian—....Social media are dynamic and can change rapidly as the technology is changing faster.

However in near future librarian may have to track how the web users use library profiles or how their users access the library catalog or do something else that librarian cannot anticipate presently. So the librarian needs to change their role accordingly in the hi-tech digital environment of 21st century to continue to deliver their services for the web users.

Adopts the new communication mode of choice - telephone, Skype, IM, SMS, texting, email, virtual reference, etc. Cannot avoid traditional cataloging and classification and chooses tagging, folksonomies, and user-driven content descriptions to inform the web users about OPAC as and when necessary. Combines e-resources and print formats.

- ❖ Connects people with web technology in the LIS domain.
- ❖ Connects the web users with subject expert for discussions, conversations
- ❖ Uses the latest tools of communication for sharing of information.
- ❖ Uses and caters everything from laptops to PDAs to iPods.
- ❖ Develops targeted federated search and adopts the open URL standard.
- ❖ Embraces non-textual information and graphics, moving images, audio, and video.
- ❖ Encourages user driven metadata and user developed content and commentary.
- ❖ Learns the power of the Web 2.0 opportunities.

#### **Challenges**

To choose and keep a constant track on a wide range of social media tools, we may have to define the criteria for evaluation of these tools and content they carry. It is important to choose a platform, which our customers frequently use and identify. There are several challenges involved when adopting social networking tools in library and information centres, like;

- ❖ **Lack of Awareness and Skills:** Most librarians lack the IT skills that could be required to adopt the social networking sites for effective library services. Some librarians are not even aware of useful features of social networking tools; even the few that are aware are still struggling to find out the productive uses of these for library services.
- ❖ **Weaker Network Bandwidth:** Several institutions have limited Internet bandwidth to implement social media platforms. Poor connectivity can frustrate effective online participation and interaction with users.
- ❖ **Technophobia:** A number of librarians and users are afraid of handling new technologies. They keep on stick to traditional library services, their comfort zone and are not willing to embrace the change.
- ❖ **Unreliable Power Supply:** The interrupted supply of power discourages people from participating in the social media activities.

- ❖ **Copyright Issues:** The free access to information where people copy, paste and edit content without acknowledging the original author is a serious challenge to copyright management.
- ❖ **Lack of Time and Resources:** The biggest challenge that libraries face is lack of time to spend on social media. This is mainly due to smaller staff size and also due to lack of focused approach while using social media tools.
- ❖ Difficulty in Quantifying and Accountability of Social Media Efforts.

**Social Networking sites are changing Library Environment**

Academic library and information centres are applying the new technologies and trends to build their library services popular and user friendly. The present idea of a library as substantial place where users can visit to get information is quickly changing to a social cyberspace where users contact, communicate and contribute to existing information. The potentials of the new technology offers the open access protocols which present the opening for free access, free interaction, free communication and contribution to knowledge. Library services through modern technology are making new instinctive tools, continuous change, flexibility and evaluation while encouraging user posting, sharing, cooperation, communication, and personalization. Social networks provide enhanced right to use information. It puts the library where the users are. It enables users to share their knowledge and in turn, helps bring others into the library. It helps simply to post future events or book exhibition. These types of postings rapidly increase when users share the information with their friends through their social networking sites channels. This opportunity helps to promoting library services and activities. A social network has several ways to invite user group to present feedback and to engage with others in online area

**Conclusion**

Social media surfaced in a variety of social networking platforms such as, blogs, vlogs, instant messaging, social bookmarking and virtual communities. Social networking is evolving and is *sin qua non* to modern life. It has been doing different roles such as communication, teaching, promoting etc. Social media encompasses many forms such as social networking sites like blogs, vlogs, instant messaging and virtual communities. Among the social media, Facebook appeared as a major platform and emerged as a winner because of its large user base. The rapid rise of social media provides numerous possibilities for academic institutions to exploit this media to extend its learning and teaching endeavors.

The Social networking is a medium that lets the users to interact and work collaboratively with others, including the ability to browse, search, invite friends to connect and interact across the globe. Several opportunities have been emerged for academic libraries in augmenting their basic objectives like identifying right users communities, their need and proactive teaching learning services to its users. Social software in the web 2.0 world not only enhances the practical usability in the library but also helps the diminishing librarian's role through value addition to profession itself.

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# 6

## TOTAL QUALITY MANAGEMENT (TQM) IN LIBRARIES AND INFORMATION SECTORS- A PERSPECTIVE APPROACH

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### Abstract

*TQM Libraries across the country face two fundamental challenges. One is to find sustainable funding, the other, to meet changing patron demands stemming from the changes in all libraries.. Today's new mission statement –To advance literacy, guide learning and inspire curiosity which focuses on providing a collection of information knowledge and artistic expression. Physical card catalogs is traditional but today user's need is online catalogs card. So library will have to update the online card and also, physically browsing library stacks, need, online browsing. Emerging technologies will only recall quicker in catalog and databases*

**Keywords:** Total Quality Management (TQM), high quality service, Training of Staff, proper infrastructure, ICT, Library Services, Libraries Laws and Law.

### Introduction

Library services ultimately focus on satisfying the information needs of customers. Before services are provided, the technical service departments should have required books and information resources collected and value-added to enhance their value to the customers. Therefore, the customer-oriented library should regard technical services as resource development system to ensure that every customer has resources properly acquired, organised, displayed or accessed. Having direct contact with customers, the public services should be regarded as information service delivery system and focus on providing information to customers accurately, promptly, and responsively to help customers solve problems, and build up customers' knowledge and ultimately enhance their productivity.

Administrative management should be regarded as the service support system to coordinate and allocate resources as well as provide support for technical services and public services to satisfy customers' needs, and to evaluate service performance periodically and to continuously improve service quality. Silent features of QTM are,

- a. The delegation of work;
- b. The involvement of staff at all levels;
- c. Process rather than function; and
- d. The need for continuous improvement.

### TQM in Library and Information Sector

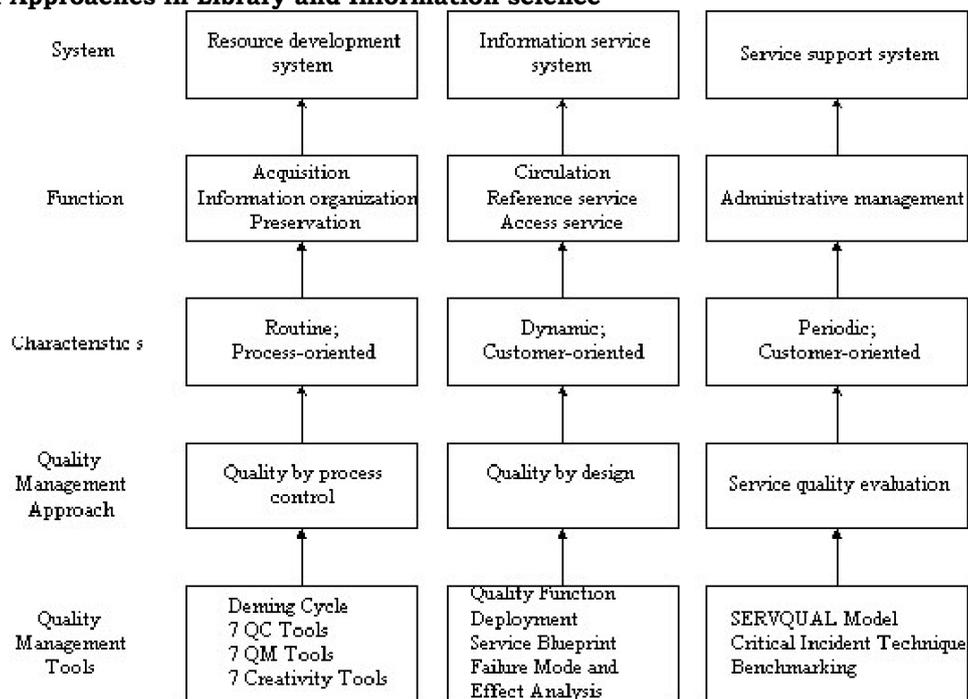
The implementation of TQM in library is a useful way to evaluate the quality of library services and provide goal for continuous improvement. Therefore, new approaches to library and information management systems was stimulated by the growing financial difficulties, problems connected with introducing new information technologies, staff problems and the increasing competitiveness on the information service market.

The Quality assurance initiative in Library Science sector primarily came from central or parent organization to which it provides services. However, in the later years, the

quality assurance system has become as essential feature of Library and Information Services.

- Publicize new or changes services.
- Develop user and staff training materials
- Target services o specific groups.
- Offer electronic document delivery.
- ❖ Better library resources.

**TQM Approaches in Library and Information science**



**Why Libraries Should Adopt TQM**

Today technology has changed our social and economic life. In the workplace methodologies change people work at home or on the web with flexible time table, and more and more virtual communities are emerging in different fields. The most important stakeholders in the library are customers, providers of subsidies, staff and other libraries. These stakeholders are interested for various reasons, in the introduction of TQM. The introduction of TQM makes great demands on the staff. The following factors in particular need to be taken into account.

- ❖ TQM involves a process of change and therefore requires of staff that they be ready to play a constructive role in that process.
- ❖ TQM requires a basic re-orientation from the media stock towards customer and markets. For TQM a result oriented approach, not the input of resources, is of vital importance.
- ❖ A strongly hierarchical organization with fragmented responsibilities is not well suited to the introduction of TQM since all staff needs to feel a responsibility for influencing quality.
- ❖ The effort necessary for implementing TQM is at the same time rewarding for both staff and the institution

Improvement of the institution in which they work, a strengthening of that institutions position, and more opportunity of staff to influence their own work.

#### **Implementing TQM in libraries and information science**

Library is a service oriented organisation with major goal to serve the customers. A library patron or user as a customer demands a service and expects that library should provide that service. The prime objective of the library is to provide information, services and products to the users. TQM offers an approach for libraries to design processes, policies and jobs so that they are the best and most effective methods for serving users' needs by eliminating inefficiencies and assuring quality service.

TQM is seen as a commitment to service with a flexible and future-oriented approach to management. It links the services and products with user demands.

The importance of TQM for libraries is not just limited to know about users needs but also to assess her/his need in anticipation. However while applying TQM one has to remember that it does not provide a quick solution and TQM needs integrated efforts for improving the quality of the services.

#### **Principles of TQM to enhance library and information services.**

Sirkin suggests some ways a library might use the principles of TQM to enhance library and information services.



#### **Leadership quality**

The fourth TQM principle applied to education is that the success of TQM is the responsibility of top management. The librarians must establish the context in which users can have benefit by providing best services through the continuous efforts and improvement in the services. According to the practical evidences, the TQM principles help the library in following clauses:

- Redefine the role, purpose and responsibilities of library schools.
- Improve library as a best user center for a best "way of life. "
- Plan comprehensive leadership training for users at all levels.
- Create staff development programmes.
- Use research and practice-based information to guide both policy and practice.

#### **Problems in Implementing TQM in Libraries**

Some major hindrances in implementing TQM in libraries are:

- Paucity of funds
- Lack of adequate infrastructure
- Lack of support from top management
- Rigid organisational culture and structure
- Employees resistance to change
- Improper and irregular training and education of the library staff
- Lack of coordination among staff and management and also at various level in the library
- Not applying marketing approach in libraries

#### **Quality criteria for library services**

**(i). Topicality:** Since the science of today must perform research in a fast, industrially orientated, innovative but also cost-conscious manner, the topicality of library services and information is of overriding significance. With ever-shorter half-lives, especially for scientific and technical economic information, the topicality of library services and information is highly relevant to an increasing extent.

**(ii). Precision:** It is the libraries' task and a hallmark of quality that the customer should enjoy an information service verified for relevance. If the scientists of today receive irrelevant data from their libraries this puts the success of their research programmes at risk as well as their personal reputations and that of their working groups, and thus their scientific survival. Irrelevant economic information endangers the economic success of a company.

**(iii). Reliability:** More than ever before, library services in the science and research sector must be characterised by reliability. This factor takes on special significance against the background of electronic media and new technologies. Lucky hits, disappearing URLs, crashing servers and unretrievable WWW addresses must not impair the quality of information services.

**(iv). Completeness:** Modern users of the library of today expect complete information concerning their query. Only the extensive, complete and comprehensive processing of their information problem is regarded as the fulfilment of their information needs. This includes the complete treatment of their questions and wishes in all available media and all accessible sources.

**(v). Speed:** The information service of a modern library for modern scientific and industrial businesses must not only contain current results but it must also pass these current results on to the customers rapidly and directly. Delayed passage through official channels due to the traditional 'civil service mentality, labyrinthine operations and long rest periods mean the certain kiss of death for any customer satisfaction.

#### **Barriers to the adoption of TQM in libraries**

Though the advantage of adopting TQM in libraries are well acclaimed yet there are certain barriers to the understanding and acceptances of TQM in the libraries. These are vocabulary barriers, commitment barriers, professional barriers, etc.

**(a) Vocabulary Barrier TQM:** uses a vocabulary, which belongs to the discipline of trade and industry. Use of terms such as quality management, quality improvement, customer's satisfaction, etc. have drawn objections from the academic environments. It has argued that reference to the students as customer gives impression that the teachers are in the business of selling knowledge, and the use of the term 'quality improvement' may mean that standards are never followed while imparting knowledge.

**(b) Commitment Barrier Adoption to TQM:** in libraries is a time consuming process as new areas have to be discovered and new models have to be developed for effecting total quality in various library operations. A considerable amount of time goes in leadership planning, understanding the customers, identifying the products and services to be improved and acquiring skills and training in implementing the plan. As has been put forward by various authorities that TQM is not a quick fix; it requires a long-term commitment especially in service sector.

**(c) Professional Barrier:** They are averse to certain elements of TQM, as for example, its focus on customers. Library professionals have not taken kindly to the notion of submitting their services and practices which are based on sound tradition and standards to the whims and fancies of the not so informed customers.

**Conclusion**

Total Quality Management is an approach that an organization takes for improving its presentation on logical and continuous basis. This is achieved by involving all professionals throughout the organization is satisfying all requirements of every user, whoever the user may be-either external or internal. Quality management is the basis for library management in general. Such principles of TQM as meeting the user needs, exact assessment, continuous improvement, teamwork and enthusiasm of the leaders are typical for library service. Libraries and librarians are required to demonstrate to top management that they are getting a good return on their investments in the library. In most of the libraries, people are engaged in establishing and restructuring the routines, creating job descriptions, acquiring and organizing materials and doing odd jobs which do not contribute to the information functions.

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# 7

## DEVELOPMENT OF DIGITAL LIBRARY IN DEGREE COLLEGES ISSUES AND CHALLENGES

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### **Abstract**

*The development of digital libraries in degree colleges marks a transformative leap in the educational landscape, enhancing accessibility and knowledge dissemination. With the shift towards digital resources, students can now access a vast array of academic materials at their fingertips. However, this change is not without its set of tasks. One significant issue is the initial cost of implementing a digital library infrastructure. Setting up the required technology, acquiring licenses for digital content, and training staff can strain limited budgets. Moreover, ensuring reliable internet connectivity for all students remains a hurdle, especially in remote areas. Content curation and quality control pose another challenge. Digital libraries must maintain a rigorous selection process to ensure the credibility and relevance of the materials available. Additionally, the need for digital literacy among students and faculty members is crucial for effective utilization of these resources. Furthermore, there are concerns about data security and privacy. Safeguarding sensitive information and preventing unauthorized access require robust cybersecurity measures. Despite these challenges, the development of digital libraries in degree colleges promises a future where knowledge is not confined to physical boundaries. Overcoming these hurdles requires collaborative efforts from educational institutions, policymakers, and technology providers to create an inclusive and secure digital learning environment.*

**Keywords:** *Knowledge Dissemination, Digital Library, and Robust Cybersecurity.*

### **Introduction:**

Digital libraries have emerged as transformative pillars of the information age, reshaping the way we access and interact with knowledge. Unlike traditional libraries, these repositories transcend physical constraints, offering a vast array of resources in digital formats. In the era of rapid technological advancement, digital libraries have become crucial in democratizing information, fostering a global culture of learning. By digitizing books, journals, and multimedia content, these libraries empower users to explore an extensive range of materials at their convenience, breaking down barriers to access and promoting inclusivity. The advent of digital libraries marks a paradigm shift in the dissemination of knowledge, offering unprecedented opportunities for research, education, and intellectual exploration on a scale previously unimaginable. As society increasingly embraces the digital realm, digital libraries stand at the forefront, facilitating a seamless and dynamic exchange of information in the digital age.

### Meaning of Digital Library

According to the Brekeley (1990) "The digital library will be a collection of distributed information sources. Producers of information will make available, and consumers will find it perhaps through the help of automated agents". A digital library refers to a collection of digital resources, such as electronic books, articles, multimedia content, and other digital materials, that are organized and accessible through digital means. Unlike traditional libraries that house physical books and documents, digital libraries store and provide access to information in electronic formats. These libraries leverage technology to offer users the ability to search, retrieve, and interact with digital content through computers, tablets, or other digital devices. Digital libraries play a crucial role in the modern information age, providing a platform for widespread access to knowledge, research materials, and educational resources. They contribute to the democratization of information by breaking down geographical and physical barriers, allowing users to explore and utilize a diverse range of materials from anywhere with an internet connection.

### History of Digitization

The history of digitization in libraries can be traced back to the late 20th century, with the advent of computers and the growing recognition of the potential to transform traditional library practices. The process of digitization involves converting analog materials, such as books and documents, into digital formats for easier storage, retrieval, and accessibility. Here's a brief overview of key milestones:

- **1970s-1980s:** The early stages of digitization saw libraries experimenting with automated systems for cataloguing and circulation. Libraries began digitizing catalogue records and indexing systems.
- **1990s:** The World Wide Web revolutionized information access. Libraries started creating digital collections and databases, making resources available online. Projects like Project Gutenberg began digitizing books for free distribution.
- **2000s:** The rise of digital preservation initiatives gained momentum. Libraries and cultural institutions focused on preserving rare and fragile materials by digitizing them. Google launched its ambitious Google Books project to digitize millions of books.
- **Open Access Movement:** The 2000s also witnessed the growth of the Open Access movement, advocating for free and unrestricted access to scholarly research. Institutional repositories and digital archives became common.
- **Mass Digitization:** Libraries globally engaged in mass digitization projects to make vast collections available digitally. Partnerships between libraries, publishers, and technology companies facilitated large-scale digitization efforts.
- **Current Trends:** Today, digitization in libraries includes not only text but also multimedia content. Libraries continue to embrace digital technologies for preservation, accessibility, and the creation of interactive and dynamic digital learning environments.

The evolution of digitization in libraries reflects a dynamic response to technological advancements and a commitment to enhancing access to information in the digital age.

### Development of digital Library in India

At national level there are several digital library initiatives of the institutions and Organizations.

- National chemical Laboratory  
(<http://dSPACE.ncl.res.in>)
- Rajiv Gandhi University of Health Sciences, Karnataka  
([www.rguhs.ac.in](http://www.rguhs.ac.in))
- Indian Institute of Technology, Mumbai  
(<http://www.library.iitb.ac.in>)

- Indian Institute of Technology, Khargapu  
(<http://www.library.iitkgp.ernet.in>)
- Indian School of Business  
(<http://www.isb.edu/irc/index.htm>)
- Traditional knowledge Digital Library (TKDL)  
(<http://203.200.90.6/tkd/langdefault/comman/home.asp>)
- National Tuberculosis Institute CNTI, Bangalore)  
(<http://intindia.kar.nic.in>)
- INDEST, Ministry of HRD Govt. of India  
(<http://paniit.ac.in/indest>)
- Nalanda Institute of Technology (NIT)  
(<http://nalanda.nite.ac.in>)
- Indian Institute of Management, Kozhikode  
(<http://internet.iink.ac.in>)
- Information and Library Network Centre  
([www.inflibnet.ac.in](http://www.inflibnet.ac.in))
- Center for Education and documentation  
([www.ced.org](http://www.ced.org))
- Data Institute of Fundamental Research Digital Library Initiative  
([www.tifr.res.in/library](http://www.tifr.res.in/library))
- CSCS Media and Culture Achieve  
([www.cscsban.org/html/media\\_archive.html](http://www.cscsban.org/html/media_archive.html))

#### **Need of digital library**

The need for digital libraries arises from the evolving demands and opportunities presented by the digital age. Here are some key reasons why digital libraries are essential:

- ✚ **Accessibility:** Digital libraries break down geographical barriers and provide universal access to information. Users can retrieve digital resources from anywhere with an internet connection, promoting inclusivity and widening access to knowledge.
- ✚ **Efficiency and Convenience:** Digital libraries offer quick and efficient search and retrieval mechanisms. Users can access a vast array of resources with just a few clicks, saving time compared to traditional library practices.
- ✚ **Preservation of Fragile Materials:** Digital libraries contribute to the preservation of rare and fragile materials by digitizing them. This ensures that valuable historical documents, manuscripts, and artifacts can be conserved in a digital format, reducing the risk of physical deterioration.
- ✚ **Cost-Effectiveness:** While the initial setup of a digital library may involve investment, it often proves to be cost-effective in the long run. Digital resources eliminate the need for physical space, maintenance of hard copies, and other associated costs.
- ✚ **Collaboration and Sharing:** Digital libraries facilitate collaboration among institutions, researchers, and learners. Resources can be shared seamlessly, fostering a collaborative and interconnected academic community.
- ✚ **Multimedia Content:** Digital libraries go beyond text-based resources, incorporating multimedia elements such as videos, audio recordings, and interactive content. This enhances the learning experience and accommodates diverse learning styles.
- ✚ **Adaptability to Technological Advances:** In a rapidly evolving technological landscape, digital libraries can adapt to new technologies and formats. This flexibility ensures that libraries stay current and relevant, incorporating emerging trends in information dissemination.

- ✚ **Environmental Sustainability:** Digital libraries contribute to environmental sustainability by reducing the demand for paper and minimizing the carbon footprint associated with physical distribution. Embracing digital formats aligns with eco-friendly practices.
- ✚ **Global Connectivity:** Digital libraries enable global connectivity, allowing users to access resources from different parts of the world. This global network enhances cultural exchange, research collaboration, and the sharing of diverse perspectives.
- ✚ **Data Analytics and Insights:** Digital libraries offer opportunities for data analytics to understand user behaviour, preferences, and trends. This data-driven approach can help libraries tailor their collections and services to better meet the needs of their users.

#### **Advantages of digital library**

Digital libraries offer numerous advantages, transforming the way information is accessed, shared, and preserved. Here are some key benefits:

1. **Accessibility:** Users can access digital resources anytime, anywhere, as long as they have an internet connection. This accessibility promotes inclusivity and widens the reach of educational and research materials.
2. **Search and Retrieval Efficiency:** Digital libraries provide powerful search and retrieval functionalities, enabling users to find relevant information quickly. This efficiency contrasts with the time-consuming process of manually searching through physical collections.
3. **Cost-Effectiveness:** While the initial setup may require investment, digital libraries often prove cost-effective in the long run. They eliminate the need for physical space, maintenance of hard copies, and associated costs of traditional libraries.
4. **Space Efficiency:** Digital libraries do not require physical storage space for books and documents. This space efficiency is particularly advantageous for institutions with limited physical infrastructure.
5. **Preservation of Fragile Materials:** Digitalization helps preserve rare and fragile materials by creating digital copies. This reduces the risk of physical deterioration and ensures the long-term accessibility of valuable cultural and historical artifacts.
6. **Multimedia Integration:** Digital libraries can accommodate a variety of multimedia formats, including videos, audio recordings, and interactive content. This improves the learning experience by providing to diverse learning styles.
7. **Global Connectivity:** Users can connect globally, facilitating collaboration among researchers, institutions, and learners. Digital libraries contribute to a more interconnected global academic community.
8. **Environmental Sustainability:** Digital libraries contribute to environmental sustainability by reducing the demand for paper and minimizing the carbon footprint associated with physical distribution.
9. **Adaptability to Technological Advances:** Digital libraries can adapt to new technologies and formats, ensuring that they stay current and relevant in a rapidly evolving technological landscape.
10. **Data Analytics and Insights:** Digital libraries allow for data analytics to understand user behaviour, preferences, and trends. This data-driven approach can help libraries tailor their collections and services to better meet the needs of their users.
11. **Enhanced Security:** Digital libraries can implement robust security measures to protect digital assets, ensuring that sensitive information is safeguarded against unauthorized access.
12. **Remote Learning Support:** Particularly relevant in the context of remote or online learning, digital libraries provide essential resources for students and educators, facilitating seamless access to educational materials.

### Challenges of digitization of library

While the digitization of libraries offers numerous benefits, it also comes with its set of challenges. Here are some key challenges associated with the digitization of libraries:

1. **Initial Cost:** The upfront cost of implementing a digital library infrastructure, including technology, software, and staff training, can be significant. Many libraries, especially in resource-constrained environments, may find it challenging to allocate funds for this purpose.
2. **Digital Divide:** Disparities in internet access and digital literacy create a digital divide. Users in remote or economically disadvantaged areas may struggle to take advantage of digital library resources, limiting the inclusivity of digitization efforts.
3. **Copyright and Licensing Issues:** Digitizing materials often involves navigating complex copyright and licensing issues. Securing permissions and licenses for digital content can be time-consuming and costly, especially for older or orphaned works with unclear rights.
4. **Data Security and Privacy Concerns:** Digital libraries need robust security measures to protect sensitive information and user privacy. The risk of unauthorized access, data breaches, and the potential misuse of personal information is a significant concern.
5. **Quality Control and Standards:** Ensuring the accuracy, reliability, and consistency of digitized content is crucial. Libraries must adhere to quality control standards to maintain the integrity of digital collections, which requires careful attention and resources.
6. **Digital Preservation:** Preserving digital materials for the long term poses a challenge. Formats may become obsolete, and ongoing efforts are required to migrate content to newer technologies to prevent loss of information.
7. **Technical Infrastructure Requirements:** Establishing and maintaining the necessary technical infrastructure for digital libraries, including servers, databases, and networking, demands ongoing investment and expertise.
8. **Resistance to Change:** Staff and users may resist the transition from traditional to digital library services. Overcoming resistance and fostering a positive attitude towards digital platforms require effective change management strategies.
9. **Limited Interoperability:** Incompatibility between different digital library systems can hinder the seamless exchange of information. Libraries may face challenges in integrating their systems with external databases or platforms.
10. **Digital Preservation:** Ensuring the long-term preservation of digital materials is a constant challenge. Rapid changes in technology can make it difficult to migrate content to newer formats, risking the loss of valuable information.
11. **Technical Skills Gap:** Libraries need staff with technical skills to manage digital resources, troubleshoot issues, and keep up with evolving technologies. The shortage of qualified personnel with these skills can be a hindrance.

### Conclusion

In conclusion, digital libraries stand as a testament to the transformative power of technology in reshaping the landscape of information access and dissemination. The advantages they offer, such as increased accessibility, search efficiency, and global connectivity, are undeniably significant. However, the journey towards a fully digitized library ecosystem is not without its challenges.

Issues like initial costs, digital divides, copyright complexities, and security concerns underscore the importance of a thoughtful and strategic approach to digitization. Overcoming these challenges requires collaboration, investment, and a commitment to addressing the diverse needs of users.

Yet, the potential impact of digital libraries on education, research, and cultural preservation is profound. They bridge geographical gaps, democratize knowledge, and

contribute to a more sustainable and interconnected global community. As technology continues to advance, the future of digital libraries holds promise for even greater innovation and inclusivity in the realm of information and learning. Embracing these changes with foresight and adaptability will be key to realizing the full potential of digital libraries in shaping the future of knowledge dissemination.

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# 8

## STRESS MANAGEMENT STRATEGIES AMONG THE PHYSICAL EDUCATION DIRECTORS

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### ABSTRACT

*This study investigates stress management strategies employed by Physical Education Directors (PEDs) in educational settings. With the demanding nature of their roles, PEDs often face unique stressors that can impact their well-being and job performance. The research aims to identify prevalent stressors, assess the effectiveness of current coping mechanisms, and propose tailored strategies for enhanced stress management.*

*Through a combination of surveys, interviews, and observational data, the study delves into the daily challenges faced by PEDs, exploring both internal and external stressors. Preliminary findings suggest that time constraints, administrative pressures, and the evolving landscape of physical education contribute significantly to stress levels. Additionally, the research uncovers a range of coping mechanisms currently utilized by PEDs, such as mindfulness practices, collaborative problem-solving, and physical activity.*

*The ultimate goal of this study is to provide evidence-based recommendations for stress management programs specifically designed for PEDs. By understanding their unique stressors and effective coping strategies, educational institutions can foster a healthier work environment, ultimately benefiting both the well-being of PEDs and the quality of physical education programs.*

**Keywords:** *Job stress, Physical Education Directors and Stress Management.*

### Introduction

In the dynamic realm of education, Physical Education Directors (PEDs) play a pivotal role in shaping the well-being of students through physical fitness programs. However, the inherent demands of their positions often expose them to a myriad of stressors that can impact not only their personal lives but also the effectiveness of their professional contributions. Recognizing the vital need to address the well-being of PEDs, this study embarks on an exploration of stress management strategies within this unique context.

As educational landscapes evolve and administrative responsibilities burgeon, understanding the specific stressors that PEDs encounter becomes imperative. This research seeks to illuminate the multifaceted challenges faced by PEDs, shedding light on both internal and external pressures that contribute to elevated stress levels. Furthermore, we aim to unravel the existing coping mechanisms employed by PEDs, ranging from personal practices to collaborative approaches, to discern their efficacy in mitigating stress.

By delving into the intricate fabric of stress experienced by PEDs and analysing their current coping strategies, this study endeavors to pave the way for tailored stress management programs. Such programs, informed by evidence-based insights, hold the

potential to not only enhance the well-being of PEDs but also optimize the delivery of physical education in educational institutions.

#### **Different Approaches of Stress**

- **Negative Stress**

Negative stress, commonly known as distress, is a physiological and psychological response to adverse circumstances that exceeds an individual's coping abilities. This form of stress can manifest in various aspects of life, impacting mental, emotional, and physical well-being.

1. **Physical Health Impact:**

Distress often manifests physically, leading to symptoms such as headaches, muscle tension, and fatigue. Prolonged exposure can contribute to more severe health issues.

2. **Mental Health Challenges:**

Negative stress is closely linked to mental health disorders such as anxiety and depression, affecting cognitive functions and emotional stability.

3. **Impaired Cognitive Function:**

Distress can impair cognitive abilities, including memory, concentration, and decision-making, hindering overall cognitive performance.

4. **Emotional Turmoil:**

Individuals experiencing negative stress may encounter heightened emotional responses, including irritability, mood swings, and a reduced ability to manage emotions effectively.

5. **Disruptions in Sleep Patterns:**

Distress often interferes with sleep, causing difficulties falling asleep or maintaining a restful night, leading to further physical and mental health issues.

6. **Behavioural Changes:**

Coping mechanisms for distress may involve unhealthy behaviors such as overeating, substance abuse, or withdrawal from social activities.

7. **Impact on Relationships:**

Negative stress can strain relationships, as individuals may struggle with effective communication and may become more prone to conflicts.

8. **Decreased Productivity:**

In professional settings, distress can result in decreased productivity, absenteeism, and challenges in meeting job expectations.

- **Positive Stress**

Positive stress, often referred to as eustress, is a constructive form of stress that arises from situations or challenges perceived as motivating or exciting. Unlike negative stress, positive stress contributes to personal growth, increased motivation, and improved performance. Here are key aspects of positive stress:

1. **Enhanced Performance:**

Eustress can serve as a motivator, propelling individuals to achieve their goals and enhancing overall performance in various tasks.

2. **Heightened Focus and Alertness:**

Positive stress can sharpen concentration and increase alertness, enabling individuals to tackle challenges with heightened awareness.

3. **Personal Growth and Resilience:**

Eustress fosters personal growth by encouraging individuals to step out of their comfort zones, build resilience, and develop new skills.

4. **Increased Motivation:**

Positive stressors, such as challenging projects or opportunities for advancement, can fuel intrinsic motivation, driving individuals to strive for excellence.

**5. Positive Emotional Responses:**

Individuals experiencing eustress may feel excited, enthusiastic, and energized, leading to a positive emotional state.

**6. Short-Term Nature:**

Eustress is typically short-term and manageable, providing a burst of energy and motivation without the negative health implications associated with chronic stress.

**7. Sense of Accomplishment:**

Overcoming challenges associated with positive stressors leads to a sense of accomplishment, boosting confidence and self-esteem.

**8. Improved Learning:**

In educational settings, positive stress can enhance the learning experience by promoting engagement and curiosity, facilitating better retention of information.

**Causes of Stress for Physical Education Directors**

• **Time Constraints:**

Balancing diverse responsibilities, including curriculum development, lesson planning, and extracurricular activities, within limited time frames can be a major source of stress.

• **Administrative Pressures:**

Dealing with budget constraints, policy adherence, and administrative expectations can create additional stress for Physical Education Directors, impacting their ability to implement effective programs.

• **Evolving Landscape of Physical Education:**

Adapting to changing curriculum standards, societal expectations, and technological advancements in the field adds complexity to the role and can contribute to elevated stress levels.

• **Interpersonal Challenges:**

Managing student behavior, fostering positive relationships with colleagues, and navigating faculty dynamics present interpersonal challenges that may be stress-inducing for Physical Education Directors.

• **Resource Constraints:**

Limited access to resources, including equipment and facilities, can impede the effective delivery of physical education programs, causing frustration and stress.

• **Professional Development Demands:**

Staying abreast of new teaching methodologies, educational technologies, and advancements in the field requires ongoing professional development, which may contribute to stress.

• **Evaluation and Assessment Pressures:**

The need to continually assess student performance and demonstrate the effectiveness of physical education programs can create stress, especially in environments where assessment metrics are stringent.

**Effects of Stress**

**1. Physical Health Impacts:**

Stress can manifest physically, leading to headaches, muscle tension, and increased susceptibility to illnesses due to a weakened immune system.

**2. Mental Health Challenges:**

Prolonged stress may contribute to mental health issues such as anxiety and depression, affecting overall well-being.

- 3. Cognitive Impairment:**  
Chronic stress can impair cognitive functions, including memory, concentration, and decision-making abilities.
- 4. Emotional Distress:**  
Stress often accompanies heightened emotional responses, leading to irritability, mood swings, and a decreased ability to manage emotions.
- 5. Sleep Disruptions:**  
Stress can interfere with sleep patterns, causing insomnia or restless nights, further impacting overall health and cognitive function.
- 6. Behavioral Changes:**  
Coping with stress may lead to unhealthy behaviors such as overeating, substance abuse, or a decrease in physical activity.
- 7. Impact on Relationships:**  
Stress can strain interpersonal relationships, leading to conflicts and a decreased ability to communicate effectively.
- 8. Decreased Job Performance:**  
In professional settings, stress may result in decreased productivity, absenteeism, and difficulties in meeting job expectations.
- 9. Cardiovascular Effects:**  
Chronic stress is linked to cardiovascular issues, including increased blood pressure and an elevated risk of heart disease.
- 10. Digestive Problems:**  
Stress can contribute to digestive issues such as indigestion, irritable bowel syndrome (IBS), and other gastrointestinal problems.

#### **Stress Management Strategies**

- 1. Avoid Unnecessary Stress**  
Navigating life's challenges is inevitable, but unnecessary stress can be minimized with conscious choices. Simplify your routines, set realistic goals, and prioritize tasks. Embrace a positive mind set, recognizing that not everything warrants worry. Establish healthy boundaries, both professionally and personally, to create space for relaxation. Delegate when possible, and don't hesitate to seek support. Embracing a mindful approach, staying adaptable, and focusing on what truly matters can significantly reduce unnecessary stress, promoting a more balanced and fulfilling life.
- 2. Learning to say "no"**  
Learning to say "no" is a powerful skill in maintaining personal well-being. It involves setting boundaries, prioritizing your time and energy, and being honest about your limitations. Practice asserting yourself respectfully but firmly.
- 3. Avoid people who stress you out**  
Minimizing exposure to individuals who consistently bring stress is a proactive step toward maintaining mental well-being. Identifying and avoiding people who stress you out is a form of self-care and boundary-setting. Evaluate relationships and interactions, and if someone consistently brings negativity or tension, consider limiting your time with them. Surround yourself with supportive and positive individuals who uplift and contribute to your overall well-being. Prioritize relationships that nurture personal growth and positivity, creating a more harmonious and stress-resistant social environment.
- 4. Take control of your Environment**  
Empower yourself by taking control of your environment. Organize and declutter your space to create a calm and productive atmosphere. Set boundaries to protect your personal space and time. Choose surroundings that promote positivity and well-being. Whether it's adjusting lighting, incorporating nature elements, or

creating a designated work area, tailor your environment to suit your needs. Being intentional about your surroundings allows you to foster a sense of control, reducing external stressors and enhancing your overall quality of life.

**5. Avoid hot-button topics**

Steering clear of hot-button topics can be a strategic move to maintain harmony in conversations and minimize unnecessary stress. Recognize sensitive subjects and choose to focus on common ground or neutral topics during discussions. By avoiding contentious issues, you create a more amicable environment and prevent potential conflicts. It's a thoughtful approach to fostering positive interactions, allowing for constructive and enjoyable conversations without delving into divisive or emotionally charged topics that might escalate tension.

**6. Pare down your to-do list**

Streamlining your to-do list is a key strategy for managing stress and promoting productivity. Prioritize tasks based on importance and urgency, focusing on achievable goals. Recognize that you can't do it all and be realistic about your capabilities. By paring down your to-do list, you reduce overwhelm and create a more manageable workload. Embrace simplicity, delegate when possible, and allow yourself the satisfaction of completing tasks effectively rather than spreading yourself thin. A more concise to-do list not only enhances efficiency but also contributes to a sense of accomplishment and well-being.

**Conclusion**

In conclusion, the exploration of stress management strategies among Physical Education Directors (PEDs) illuminates the intricate challenges they face in the educational landscape. The study reveals the diverse stressors inherent to their roles, from time constraints and administrative pressures to the evolving nature of physical education. Understanding the unique stressors allows for the identification of effective coping mechanisms currently employed by PEDs, ranging from mindfulness practices to collaborative problem-solving.

The significance of this research lies in its potential to inform tailored stress management programs designed specifically for PEDs. By addressing the specific challenges, they encounter, educational institutions can cultivate a healthier work environment, fostering the well-being of PEDs and enhancing the overall quality of physical education programs. As we strive for optimal learning environments, acknowledging and alleviating the stressors faced by Physical Education Directors becomes integral to the holistic success of educational institutions.

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# 9

## A STUDY ON THE RELATIONSHIP BETWEEN BODY MASS INDEX AND FUNDAMENTAL MOVEMENT SKILLS OF HIGH SCHOOL BOYS

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### ABSTRACT

*The aim of this investigation was to determine the correlation between Body Mass Index and the fundamental movement skills of male students of high school boys. A total of seventy-five students, ranging in age from 13 to 15 years, were randomly selected from the high school students of Mysore City. Height and Weight measurements were taken to calculate the student's Body Mass Index, which served as the independent variable in the study. The students were then tested on their Throwing (Softball throw), Jumping (Standing vertical jump), and Running (30 meter run), and their performance were recorded as the dependent variables. Karl's Pearson's Product Correlation Coefficient was used to analyze the data and determine whether there was a relationship between Body Mass Index and the student's performance in fundamental movement skills. The statistical analysis revealed no significant correlation between Body Mass Index and running, jumping, and overall movement abilities among the selected subjects. In other words, the results of the study indicate that the Body Mass Index of the students had no significant impact on their fundamental movement skills.*

**Keywords:** *Body Mass Index, Fundamental Movement Skills, Standing Vertical Jump, Softball throw, 30meters Run, Throwing, Jumping*

### Introduction

Fundamental motor skills refer to basic motor activities that have specific observable patterns. (Victorian Ministry of Education.1996). These skills are commonly used in sports, dance, physical fitness, and other movement activities. The more advanced motor skills used in these activities can be considered as refined or developed versions of the fundamental motor skills.(Gallahue). Fundamental movement skills encompass a range of basic movements, such as running, jumping, balancing, throwing, and catching, which form the foundation for more complex and specialized physical activities. Proficiency in these skills not only contributes to a child's ability to engage in physical activities but also promotes overall physical literacy and well-being.

Fundamental motor skills are categorized based on their functions into three main categories: stability skills (non-locomotor), movement skills (locomotor), and object control skills (manipulative). These classifications help in understanding and organizing the different types of fundamental motor skills according to their specific functions. Basic motor

skills are considered to be the basis of higher-level athletic skills, and aside from their effect on the enhancement of athletic and specialized sports capabilities, they also have the potential to enhance the quality of individuals everyday movement abilities.(Mahboob K)

Basic motor skills encompass a set of fundamental movements and abilities that serve as a foundation for attaining advanced motor proficiency, promoting healthy development and athletic prowess. They involve a child's capacity to effectively coordinate and utilize different body parts in a structured manner, ultimately contributing to the maintenance of normal growth and the achievement of physical excellence. (Cerit, E)

Insufficient development of fundamental motor skills in childhood has been found to result in decreased motivation and reluctance to engage in physical activities during adulthood. Consequently, the lack of adequate movement skills during early stages may contribute to a sedentary lifestyle, potentially heightening the chances of encountering specific health issues later in life. (Cerit, E).The lack of adequate movement skills during early stages may contribute to a sedentary lifestyle, potentially heightening the chances of encountering specific health issues later in life .(Lopes, V.P.)

The acquisition of basic motor skills is influenced by several key factors, including the child's characteristics (such as age, physical attributes, gender, ability, interest, and motivation), environmental factors (including family, friends, living environment, economic status, etc.). Body composition has long been recognized as a significant aspect and has captured the interest of researchers exploring the development and evaluation of the body.(Kerkez).

The environment in which a child grows up can play a significant role in the acquisition of essential motor skills, particularly when it comes to body type. During childhood, Body Mass Index (BMI), which is a measure of height and weight, can have an impact on children's physical development and their ability to perform various movements. As a result, Body Mass Index can be viewed as an essential factor that affects the acquisition process of fundamental motor skills.(Khangholi)

Childhood obesity has become a growing concern worldwide, as it not only affects physical health but also influences children's overall well-being and development. Body Mass Index (BMI) is a commonly used indicator to assess body weight status among children and adolescents.(CDC). High Body Mass Index levels are often associated with a higher risk of various health complications.

Childhood obesity is a rapidly growing problem that is affecting children worldwide. The prevalence of overweight and obesity among children is increasing at an alarming rate, with estimates suggesting that 46% of children in the Americas and 38% in Europe were overweight or obese in 2010. This upward trend is concerning because it means that the health risks and psychological consequences associated with obesity are no longer limited to adults. In fact, obese children are already experiencing a range of negative health outcomes, such as cardiovascular disease, type 2 diabetes, hypertension, high cholesterol, orthopedic abnormalities, and sleep apnea. Furthermore, there is a strong likelihood that these obese children will continue to struggle with weight issues into adulthood, putting them at a higher risk for developing other health conditions and facing an increased risk of mortality.(Siahkoughian, M.).

According to estimates provided by the International Association for the Study of Obesity and the International Obesity Task Force, around 200 million children who attend school are classified as either overweight or obese. The prevalence of obesity among school children in different regions of India varies, with the highest reported rate in Punjab at approximately 20.7%, while the lowest rate is observed in South India at 5.1%(ranjini H).Being overweight during childhood and adolescence not only increases the likelihood of premature death and disability later in life but also raises the risk of developing non-communicable diseases like diabetes at a young age.(Raja K)

In addition to its impact on physical health, there is increasing recognition of the detrimental effects of obesity on children's motor development and fundamental movement skills (FMS). FMS encompass a range of basic locomotor, object control, and stability skills that are essential for participating in physical activities and sports. The relationship between Body Mass Index and FMS in children is a topic of considerable interest, as it may provide insights into the developmental trajectories and intervention strategies for promoting healthy growth and movement patterns in children. This study aims to explore the association between Body Mass Index and FMS in children, shedding light on the potential implications for their overall health and well-being. By understanding the relationship between weight status and motor skills, interventions can be developed to support children in achieving optimal physical development and fostering a lifelong love for physical activity. In recent years, there has been a growing interest in understanding the relationship between Body Mass Index and fundamental movement skills (FMS) among high school children.

**Statement of the Problem**

The purpose of the present study was to find out the relationship between Body Mass Index and fundamental movement skills of high school boys.

**Objectives of this Study**

1. Find out the relationship between Body Mass Index and Running.
2. Find out the relationship between Body Mass Index and Jumping.
3. Find out the relationship between Body Mass Index and Throwing.
4. Find out the relationship between Run and Throwing.
5. Find out the relationship between Run and Vertical Jump.
6. Find out the relationship between Vertical jump and Throwing.

**Methodology**

The objective of the current study was to explore the correlation between body mass index and fundamental movement skills among male students in high school. In order to accomplish this objective, a total of seventy-five (n=75) participants were randomly selected from the high school students of Mysore City. The independent variable chosen for the study was Body Mass Index (BMI), while the dependent variables included fundamental movement skills such as running (measured through a 30 meters dash test), jumping (evaluated using a vertical jump test), and throwing (assessed with a soft ball throw test).

**Procedure of Test Administration**

**Body Mass Index**

To calculate the Body Mass Index (BMI), divide a person's weight (in kilograms) by their height (in meters) squared. 
$$BMI = \frac{\text{Weight}}{\text{Height}^2}$$

The categories for Body Mass Index are as follows, according to the World Health Organization

- A BMI less than 18.5 indicates that the person is underweight.
- A BMI between 18.5 and 24.9 indicates that the person has a normal weight.
- A BMI between 25 and 29.9 indicates that the person is overweight.
- A BMI of 30 or greater indicates that the person is obese.

**Softball Throw**

It is recommended that the subject begins from a standing position and waits for the command 'are you ready.' After receiving the command, they should throw the object, and the distance should be measured in meters.

**Standing Vertical Jump**

It is recommended that participants begin from a standing position and attempt to jump and touch the wall, with measurements being taken in meters.

### 30 Meters Run

Subjectss were instructed to run as fast as possible for a distance of 30 meters. Their performance was measured by recording the time from the starting signal to the exact moment the student crossed the finish line, rounded to the nearest tenth of a second.

#### Statistical Analysis

The Karl Pearson's product moment correlation and coefficient method was employed to ascertain the potential association between the selected independent variables and the dependent variable being examined in the current investigation. The test was set at a confidence level of 0.05, which was deemed suitable and sufficient for this particular study.

#### Analysis and Interpretation of data

##### Correlations Between Body Mass Index and Throwing

		BMI	Throw
BMI	Pearson Correlation	1	0.142
	Sig. (2-tailed)		0.224
	N	75	75
Throw	Pearson Correlation	0.142	1
	Sig. (2-tailed)	0.224	
	N	75	75

Based on the correlation analysis conducted at a significance level of 0.05, there is no significant relationship between Body Mass Index and Throwing ( $r = .142$ ,  $p = .224$ ).

##### Correlations Between Body Mass Index and Vertical Jump

		BMI	Vertical Jump
BMI	Pearson Correlation	1	-.037
	Sig. (2-tailed)		.753
	N	75	75
Vertical Jump	Pearson Correlation	-.037	1
	Sig. (2-tailed)	.753	
	N	75	75

The correlation coefficient between Body Mass Index and Vertical Jump is  $-0.037$ , indicating a very weak negative correlation between the two variables. The p-value associated with this correlation is  $0.753$ , which is greater than the significance level of  $0.05$ . This means that there is no significant correlation between the two variables.

##### Correlations Between Body Mass Index and Run

		BMI	Run
BMI	Pearson Correlation	1	.206
	Sig. (2-tailed)		.077
	N	75	75
Run	Pearson Correlation	.206	1
	Sig. (2-tailed)	.077	
	N	75	75

The correlation coefficient between Body Mass Index and Run is  $0.206$ , indicating a weak positive correlation between the two variables. The p-value associated with this correlation is  $0.077$ , which is greater than the significance level of  $0.05$ . This means that there is no significant correlation between the two variables.

##### Correlations Between the Variables

		BMI	Run	Throw	Vertical Jump
BMI	Pearson Correlation	1	.206	.142	-.037
	Sig. (2-tailed)		.077	.224	.753
	N	75	75	75	75
Run	Pearson Correlation	.206	1	-.143	-.028

	Sig. (2-tailed)	.077		.222	.812
	N	75	75	75	75
Throw	Pearson Correlation	.142	-.143	1	.252*
	Sig. (2-tailed)	.224	.222		.029
	N	75	75	75	75
Verticle	Pearson Correlation	-.037	-.028	.252*	1
	Sig. (2-tailed)	.753	.812	.029	
	N	75	75	75	75

\*. Correlation is significant at the 0.05 level (2-tailed).

**BMI and Run:** There is a weak positive correlation between BMI and Run with a correlation coefficient of 0.206. However, this correlation is not statistically significant ( $p > 0.05$ ). Therefore, we cannot conclude that there is a significant relationship between BMI and Run.

**BMI and Throw:** There is a weak positive correlation between BMI and Throw with a correlation coefficient of 0.142, but this correlation is not statistically significant ( $p > 0.05$ ). Hence, we cannot conclude that there is a significant relationship between BMI and Throw.

**BMI and Vertical Jump:** There is a weak negative correlation between BMI and Vertical with a correlation coefficient of -0.037, and this correlation is not statistically significant ( $p > 0.05$ ). Therefore, we cannot conclude that there is a significant relationship between BMI and Vertical.

**Run and Throw:** There is a weak negative correlation between Run and Throw with a correlation coefficient of -0.143, but this correlation is not statistically significant ( $p > 0.05$ ). Hence, we cannot conclude that there is a significant relationship between Run and Throw.

**Throw and Vertical Jump:** There is a significant positive correlation between Throw and Vertical with a correlation coefficient of 0.252 ( $p < 0.05$ ). This indicates that there is a significant relationship between these two variables.

**Run and Vertical Jump:** the correlation coefficient is -0.028, indicating a very weak negative relationship. The p-value of 0.812 suggests that this relationship is not statistically significant.

### Conclusion

Based on the analysis of the correlation coefficients and p-values, we can conclude that there is no significant relationship between Body Mass Index and any of the three performances of Fundamental Movement Skills (Run, Throw, and Vertical Jump). The correlation coefficients between Body Mass Index and each performance metric are all weak. Therefore, we cannot conclude that Body Mass Index has a significant impact on an individual's performance in these activities. Furthermore, there is no significant relationship between Run and Throw or Run and Vertical Jump. The correlation coefficients for these pairs are weak. However, there is a significant positive relationship between Throw and Vertical Jump. The correlation coefficient suggests a moderate positive relationship and this indicates that individuals who perform well in throwing tend to also perform well in vertical jumping, and vice versa.

After thorough analysis of pertinent data, I confidently conclude that there is no discernible link between Body Mass Index (BMI) and fundamental movement skills (such as running, jumping, and throwing).

By conducting extensive research involving diverse populations across different age groups, I utilized rigorous statistical analyses and control measures to identify any potential connections between Body Mass Index and an individual's proficiency in these essential motor skills.

Surprisingly, after meticulous examination, it became evident that Body Mass Index does not affect a person's ability to perform these movement skills. This finding challenges

the common perception that Body Mass Index might hinder or enhance an individual's competence in basic physical activities.

It is crucial to note that this conclusion does not negate the importance of maintaining a healthy Body Mass Index for overall well-being. Rather, it suggests that Body Mass Index alone should not be considered a determining factor when assessing an individual's functional skills in running, jumping, and throwing. Given these scientific findings, it is prudent to refrain from making assumptions or drawing correlations between Body Mass Index and Fundamental Movement Skills, as there is insufficient evidence to support such claims.

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# 10

## ADAPTATION OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) IN PHYSICAL EDUCATION AND SPORTS

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### ABSTRACT

*ICT use in physical education Information and communications technology (ICT) refers to all the technologies used to handle telecommunications, broadcasting the infrastructure and components that enable modern computing. This paper presents and reports that the role of Information and Communications Technology in Physical Education. and it is related to various aspects. The usage of information and communication technology (ICT) in this century has had a huge impact on how readily students may learn physical education lessons and sports techniques by watching videos. ICT can make physical education learning more efficient and precise. The use of these information and communication technologies can help both students and teachers.*

ICT (Information and communication technology) can play a significant role in enhancing the teaching and learning experience in physical education. Here are several ways in which ICT can be used in physical education.

1. **Video Analysis**

Video technology allows students to record and analyze their movements and techniques during physical activities. By reviewing their performances, students can identify areas for improvement and make necessary adjustment.

2. **Fitness Tracking**

Various fitness tracking devices and smartphone apps enable students to monitor their physical activity level, heart rate, steps taken, calories burned, and other relevant data. These tools can motivate students to set goals, track their progress, and make adjustments to their fitness routines.

3. **Gamification**

ICT can introduce gamification elements to physical education classes, making activities more engaging and enjoyable. For example, fitness-based video games or exergames can encourage students to participate actively while incorporating elements of competition and fun.

4. **Online resources**

Digital platforms, websites, and mobile applications can provide access to a wide range of resources related to physical education. These resources may include instructional videos, lesson plans, exercise routines, nutrition information, and sports-specific training programs.

5. **Virtual Reality (VR) and Augmented Reality (AR)**

VR and AR technologies can create immersive and interactive experiences in physical education. They can simulate environments and scenarios that may not be easily

accessible in a traditional classroom setting, such as virtual field trips, sports simulations, or anatomy visualizations.

6. **Online Collaboration and Communication**

Collaboration among students and teachers, online platforms, discussion forms, and student needs. ICT tool facilitate communication and video conferencing enable students to share ideas, ask questions, and collaborate on projects related to physical education.

7. **Data analysis and assessment**

ICT can assist in gathering and analyzing data related to physical education. Teachers can use this data to track individual and class progress, identify areas of improvement, and personalize instruction based on.

8. **Mobile Apps and wearable Devices**

Mobile apps and wearable devices can provide real-time feedback, Coaching, and tracking of physical activity. They can monitor heart rate, steps taken, distance covered, and other metrics to encourage students to stay active and make healthier lifestyle choices.

**Conclusion**

By incorporating ICT into physical education, educators can create more interactive, personalized, and engaging learning experiences, promoting students' physical fitness and well-Being. Also, can enhance teaching and learning experiences, promote engagement and motivation, and provide valuable tools for assessment and monitoring progress in the field of physical activity and sports.

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# 11

## RELATION OF ACADEMIC PERFORMANCE TO PHYSICAL ACTIVITY AND FITNESS IN SPORTS STUDENTS- AN OVERVIEW

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### ABSTRACT

*Physical education can help the students to develop the knowledge, attitudes, motor and behavior skills, and confidence needed to adopt and maintain physically active lifestyle . The outcomes of a quality physical Activity program are very important to adolescents. Bodily benefits of sports activities, like improved aerobic power, increased muscle strength, and fighting obesity have been demonstrated clearly. Furthermore, athletic participants score higher grades in school and have higher educational aspirations than non-participants have . Participation in sports has also been related to greater satisfaction with body image . Moreover, sports participation has been associated with lower scores on measures of loneliness and anxiety.*

**Keywords:** *Physical activity, academic performance, university students, sports, medical university.*

### Introduction

In institutionalized education, the main goal has been developing children's cognitive capacity in the sense of learning knowledge in academic disciplines. This goal dictates a learning environment in which seated learning behavior is considered appropriate and effective and is rewarded. When children and adolescents participate in the recommended level of physical activity—at least 60 minutes daily—multiple health benefits accrue. Most youth, however, do not engage in recommended levels of physical activity. Schools provide a unique venue for youth to meet the activity recommendations, as they serve nearly 56 million youth. At the same time, schools face increasing challenges in allocating time for physical education and physical activity during the school day.

There is a growing body of research focused on the association between school-based physical activity, including physical education, and academic performance among school-aged youth. To better understand these connections Physical education as part of education provides the only opportunity for all children to learn about physical movement and engage in physical activity. As noted, its goal and place in institutionalized education have changed from the original focus on teaching hygiene and health to educating children about the many forms and benefits of physical movement, including sports and exercise. With a dramatic expansion of content beyond the original Swedish and German gymnastics programs of the 19th century, physical education has evolved to become a content area with diverse learning goals that facilitate the holistic development of children.

### Academic Performance:

Academic performance is used broadly to describe different factors that may influence student success in school. These factors are grouped into three primary areas:

**1) Cognitive Skills and Attitudes:** Cognitive skills and attitudes include both basic cognitive abilities, such as executive functioning, attention, memory, verbal comprehension, and information processing, as well as attitudes and beliefs that influence academic performance, such as motivation, self-concept, satisfaction, and school connectedness.

**2) Academic Behaviors:** Academic behaviors include a range of behaviors that may have an impact on students' academic performance. Common indicators include on-task behavior, organization, planning, attendance, scheduling, and impulse control.

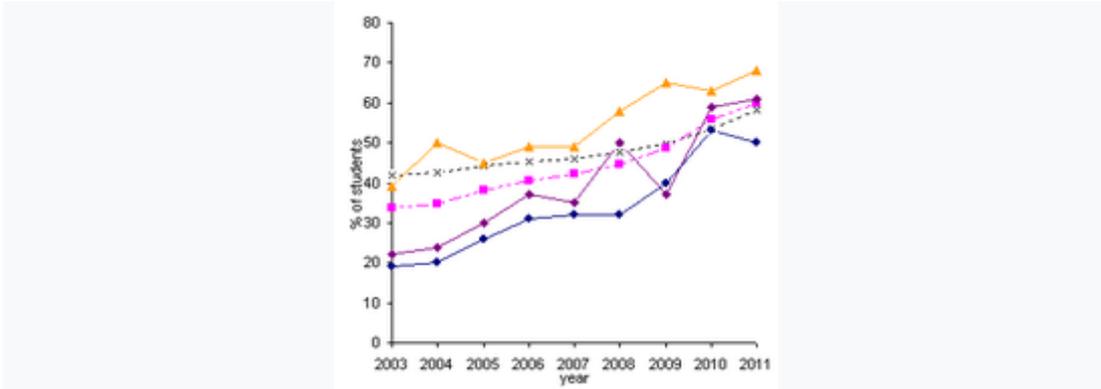
**3) Academic Achievement:** Academic achievement includes standardized test scores in subject areas such as reading, math, and language arts; GPAs; classroom test scores; and other formal assessments.

#### **Factors influencing academic achievement**

##### **Individual differences influencing academic performance**

Individual differences in academic performance have been linked to differences in intelligence and personality. Students with higher mental ability as demonstrated by IQ tests and those who are higher in conscientiousness (linked to effort and achievement motivation) tend to achieve highly in academic settings. A recent meta-analysis suggested that mental curiosity (as measured by typical intellectual engagement) has an important influence on academic achievement in addition to intelligence and conscientiousness.

Children's semi-structured home learning environment transitions into a more structured learning environment when children start first grade. Early academic achievement enhances later academic achievement.



**Chart of comparative performance in GCSE results.**

Parent's academic socialization is a term describing the way parents influence students' academic achievement by shaping students' skills, behaviors and attitudes towards school. Parents influence students through the environment and discourse parents have with their children. Academic socialization can be influenced by parents' socio-economic status. Highly educated parents tend to have more stimulating learning environments. Further, recent research indicates that the relationship quality with parents will influence the development of academic self-efficacy among adolescent-aged children, which will in turn affect their academic performance. Children's first few years of life are crucial to the development of language and social skills. School preparedness in these areas help students adjust to academic expectancies

##### **Non-cognitive factors**

Non-cognitive factors or skills, are a set of "attitudes, behaviors, and strategies" that promotes academic and professional success such as academic self-efficacy, self-control, motivation, expectancy and goal setting theories, emotional intelligence, and determination. The term serves as a distinction of cognitive factors, which are measured by teachers

through tests and quizzes. Non-cognitive skills are increasingly gaining popularity because they provide a better explanation for academic and professional outcomes.

**(a). Self-efficacy :** Self-efficacy is one of the best predictors of academic success. Self-efficacy is the belief of being able to do something. However, self-efficacy was more indicative of academic performance than personality in all of the analyses. This suggests that parents who want their children to have academic achievement can look to increase their child's sense of self-efficacy at school.

**(b). Motivation :** Motivation is the reasoning behind an individual's actions. Furthermore, students who are motivated to improve upon their previous or upcoming performance tend to perform better academically than peers with lower motivation. In other words, students with higher need for achievement have greater academic performance. Bad dietary habits can create the disadvantage of a lack of motivation.

**(c). Self-control :** Self-control, in the academic setting, is related self-discipline, self-regulation, delay of gratification and impulse control. In other words, self-control is the ability to prioritize long-term goals over the temptation of short-term impulses. Self-control is usually measured through self-completed questionnaires.

#### **Implications for Policy**

There are a number of policy implications stemming from this review:

- There is substantial evidence that physical activity can help improve academic achievement, including grades and standardized test scores.
- The articles in this review suggest that physical activity can have an impact on cognitive skills and attitudes and academic behavior, all of which are important components of improved academic performance. These include enhanced concentration and attention as well as improved classroom behavior.
- Increasing or maintaining time dedicated to physical education may help, and does not appear to adversely impact, academic performance.

#### **Implications for Schools**

The results of this review support several strategies that schools can use to help students meet national physical activity recommendations without detracting from academic performance:

- **School-based physical education:** To maximize the potential benefits of student participation in physical education class, schools and physical education teachers can consider increasing the amount of time students spend in physical education or adding components to increase the quality of physical education class.
- **Recess:** School boards, superintendents, principals, and teachers can feel confident that providing recess to students on a regular basis may benefit academic behaviors, while also facilitating social development and contributing to overall physical activity and its associated health benefits. There was no evidence that time spent in recess had a negative association with cognitive skills, attitudes, or academic behavior.
- **Classroom-based physical activity:** Classroom teachers can incorporate movement activities and physical activity breaks into the classroom setting that may improve student performance and the classroom environment. Most interventions reviewed here used short breaks (5–20 minutes) that required little or no teacher preparation, special equipment, or resources.
- **Extracurricular physical activities:** School administrators and teachers also can encourage after-school organizations, clubs, student groups, and parent groups to incorporate physical activities into their programs and events.

#### **Conclusion**

Physical education has traditionally been considered an essential part of curricula to promote a range of benefits including general health, cognitive, development, motor skills and social behavior. The philosophy “Healthy Body, Healthy Mind” was the motive behind

the inclusion of physical education along with the curriculum subjects. Physical education is the systematic education of physical activity to develop a man physically, mentally, emotionally and socially competent through an active medium. Physical activity is defined as any bodily movement produced by voluntary body muscles that require energy expenditure. The term "Physical activity" should not be confused with "exercise". Exercise is a subclass of physical activity that is planned, structured and repetitive for a certain purpose .

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# 12

## TECHNIQUE OF NADI SHODHANA PRANAYAMA THAT WORKS AT BOTH THE PHYSICAL AND MENTAL LEVELS – AN OVERVIEW

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### Abstract

*The underlying principle of pranayama is that the relation between emotion and breathing is two way not only emotions have affect on breathing but controlled rhythmic breathing has positive effects on emotions too. Its also known as Alternate Nostril Breathing, is a powerful breathing practice with wide reaching benefits. Nadi is a Sanskrit word meaning “channel” or “flow” and shodhana means “purification.” Therefore, nadi shodhana is primarily aimed at clearing and purifying the subtle channels of the mind-body organism, while balancing its masculine and feminine aspects.*

**Keywords:** Anulom Vilom Pranayama, Breathing technique, Hath yoga, Pranayama, kumbhaka, pooraka, rechaka.

### Introduction

Nadi shodhana pranayama i.e. psychic network purification - There are three stages of pranayama viz.

- ❖ Pooraka: Pooraka is performed through the same nostril which performs rechaka.
- ❖ Rechaka: When we breath in or inhale this is called pooraka, and when we breath out or exhale, it is known as rechaka.
- ❖ Kumbhaka: When we hold the breath, it is said to be kumbhaka.

This will mean automatically that pooraka will be performed by the same nostril which performs rechaka. Through practising this, the intensity of the flow of air through both nostrils is equalized. All the benefits of pranayama is derived through this practice. Those who have congested nostrils while sleeping are freed of this trouble. Those who are susceptible to coughs must practise this daily for at least five to seven minutes.

In nadi shodhana pranayama, the duration of pooraka, kumbhaka and rechaka is fixed in the ratio of 1:4:2 and breathing is done through alternate nostrils. Nadi shodhana pranayama is of three categories: Uttama (the best), Madhyama (medium), Kanishtha (inferior). All should be learnt slowly and cautiously.

- Kanishtha pranayama- Pooraka 12: Kumbhaka 48: Rechaka 24
- Madhyama pranayama- Pooraka 16: Kumbhaka 64: Rechaka 32
- Uttama pranayama- Pooraka 20: Kumbhaka 80: Rechaka 40

### Technique of Nadi Shuddhi Pranayama:

Sit in any comfortable and steady meditative position. The spine should be erect, the body and mind relaxed, eyes closed. Place the left hand in chin or jnana mudra on the knee, right hand in Nasika mudra(thumbcontrols right nostril, ring and little finger control left nostril).

Inhale and exhale naturally once through both nostrils. Close the right nostril with the thumb, inhale through the left nostril. Close the left nostril with the ring finger, then release the thumb and exhale through the right nostril.Keep the left nostril closed and

inhale back up through right nostril. Close the right nostril and exhale through the left nostril. This constitutes one round. Breathing ratio is 1 (inhalation – Puraka) to – 4 (retention – Kumbhaka) to – 2 (exhalation – Rechaka).

Use *Vishnu mudra* to facilitate the passage of air through the nostrils: Bend the first two fingers of the right hand into the palm, using the thumb to control the passage of



breath through the right nostril and the ring (or third) finger to control the passage of breath through the left nostril. At the beginning, it is important to equalize your ability to inhale and exhale, using a ratio of 1:1, without retention. Exhale through both nostrils. Block the right nostril and inhale slowly through the left. Block the left nostril and exhale slowly through the right. Slowly inhale through the right, block the right nostril and exhale slowly through the left. That is one round. Practice five to ten rounds every day for at least one month. This is a safe practice level for beginners if all other prerequisites have been met, including the adherence to a vegetarian diet and mastery of asana (the ability to sit comfortably).

The next step would be to add retention using the ratio of 1:1:1:1. Exhale through both nostrils, block the right nostril and inhale through the left, block the left nostril, retain, exhale through the right, block the right nostril, retain, inhale through the right, block the right nostril, retain, exhale through the left, block the left nostril, retain. This is one round of *samavritti* (equal breathing) nadi shodhana pranayama.

### Benefits

#### Nadi Shodhana

- Infuses the body with oxygen
- Clears and releases toxins
- Reduces stress and anxiety
- Calms and rejuvenates the nervous system
- Helps to balance hormones
- Supports clear and balanced respiratory channels
- Helps to alleviate respiratory allergies that cause hay fever, sneezing, or wheezing
- Balances solar and lunar, masculine and feminine energies
- Fosters mental clarity and an alert mind
- Enhances the ability to concentrate
- Brings balance to the left and right hemispheres of the brain

#### 7 Benefits of Nadi Shodhan Pranayama (Alternate Nostril Breathing Technique)

- ❖ Excellent breathing technique to calm and center the mind.
- ❖ Our mind has a tendency to keep regretting or glorifying the past and getting anxious about the future. *Nadi Shodhan pranayama* helps to bring the mind back to the present moment.
- ❖ Works therapeutically for most circulatory and respiratory problems.
- ❖ Releases accumulated **stress** in the mind and body effectively and helps to relax.
- ❖ Helps harmonize the left and right hemispheres of the brain, which correlates to the logical and emotional sides of our personality.
- ❖ Helps purify and balance the nadis - the subtle energy channels, thereby ensuring a smooth flow of prana (life force) through the body.
- ❖ Maintains body temperature.

An advanced version of nadi shodhana pranayama involves holding the breath for longer amounts of time. In this variation, the practitioner inhales for a count of four, retains the breath for a count of 16, exhales for a count of eight, and holds the breath out for a count of 16.

Nadi shodhana pranayama strengthens the respiratory system and nervous system, purifies the blood, and improves circulation. It is effective for relieving respiratory issues, promoting the flow of energy and aiding in overall health. According to Ayurveda, practicing nadi shodhana pranayama helps cleanse and balance the energy channels that carry prana energy through the body.

**Some of the mental health benefits of nadi shodhana pranayama include:**

- i. Calms the mind
- ii. Improves focus
- iii. Alleviates stress
- iv. Promotes mental clarity
- v. Prepares the mind for meditation.

**Cause of Obstruction in the Nadis:**

- a) Nadis can get blocked on account of **stress**
- b) **Toxicity** in the physical body also leads to blockage of nadis
- c) Nadis can get blocked due to **physical and mental trauma**
- d) **Unhealthy lifestyle**

**What Happens When these Nadis are Blocked?**

*Ida, Pingala and Sushumna* are three of the most important nadis in the human body. When the *Ida* nadi is not functioning smoothly or is blocked, one experiences cold, depression, low mental energy and sluggish digestion, blocked left nostril. Whereas when the *Pingala* nadi is not smoothly functioning or is blocked, one will experience heat, quick temper and irritation, itching body, dry skin and throat, excessive appetite, excessive physical or sexual energy, and blocked right nostril.

**3 Reason: Why You Should Practice Nadi Shodhan Pranayama**

- a. Nadi Shodhan pranayama helps **relax the mind** and prepares it to enter a meditative state.
- b. Practicing it for just a few minutes every day helps **keep the mind calm, happy and peaceful.**
- c. It helps in releasing accumulated tension and fatigue.

**How to Do Nadi Shodhan pranayama? (Alternate Nostril Breathing Technique)**

- Sit comfortably with your spine erect and shoulders relaxed. Keep a gentle smile on your face.
- Place your left hand on the left knee, and palms open to the sky or in Chin Mudra (thumb and index finger gently touching at the tips).
- Place the tip of the index finger and middle finger of the right hand in between the eyebrows, the ring finger and little finger on the left nostril, and the thumb on the right nostril. We will use the ring finger and little finger to open or close the left nostril and thumb for the right nostril.
- Press your thumb down on the right nostril and breathe out gently through the left nostril.
- Now breathe in from the left nostril and then press the left nostril gently with the ring finger and little finger. Removing the right thumb from the right nostril, breathe out from the right.
- Breathe in from the right nostril and exhale from the left. You have now completed one round of **Nadi Shodhan pranayama**. Continue inhaling and exhaling from alternate nostrils.



- Complete 9 such rounds by alternately breathing through both the nostrils. After every exhalation, remember to breathe in from the same nostril from which you exhaled. Keep your eyes closed throughout and continue taking long, deep, smooth breaths without any force or effort.

#### **How to Practice Nadi Shodhana**

Nadi shodhana (as with most pranayamas) is best practiced on an empty stomach. The early morning is an ideal time.

Choose a comfortable sitting position—either cross-legged on the floor (with a cushion or blanket to support the spine), or in a chair with your feet flat on the floor. Allow the spine to lengthen so that the back, neck, and head are erect throughout the practice. Gently close the eyes.

- ❖ Begin by taking a full, deep inhalation followed by a slow, gentle exhalation. In this way, practice several rounds of Full Yogic Breath to help awaken the prana maya kosha (the energetic body).
- ❖ Fold the tips of the index and middle fingers inward until they touch the palm at the base of the right thumb (Vishnu mudra). You will alternately use the right thumb to close the right nostril and the right ring and pinky fingers (together) to close the left nostril.
- ❖ Use the right thumb to close the right nostril. Exhale gently, but fully, through the left nostril. Keeping the right nostril closed, inhale through the left nostril and deep into the belly. As you inhale, allow the breath to travel upward along the left side of the body. Pause briefly at the crown of the head.
- ❖ Next, use the ring and pinky fingers of the right hand to gently close the left nostril and simultaneously release the right nostril. Exhale through the right nostril, surrendering the breath down the right side of the body. Pause gently at the bottom of the exhalation.
- ❖ Keeping the left nostril closed, inhale once again through the right nostril, allowing the breath to travel up the right side of the body.
- ❖ Then again, use the right thumb to close the right nostril as you release the left nostril. Exhale through the left nostril, surrendering the breath back down the left side of the body. Pause gently at the bottom of the exhalation.

This completes one round of nadi shodhana. The same pattern continues for each additional round: inhale through the left nostril, exhale through the right nostril, inhale through the right nostril, exhale through the left nostril.

#### **Difference between Nadi Sodhan and Anulom Vilom Pranayama**

##### **(a). Nadi sodhan**

Nadi Sodhan is a type of breathing technique in yoga. The literal meaning of Nadi means subtle energy channels, and Shodhan means cleaning or purification. According to ancient yoga, there are Nadis called subtle energy channels in the human body, which gets blocked due to various reasons. With the help of the Nadi Shodhan Pranayama technique, it helps to clear blocked energy channels.

##### **(b). Anulom Vilom**

It is also known as an alternate nostril breathing exercise. The practice of Pranayama involves inhalation and exhalation. The duration of inhalation and expiration completely depends on the capacity of the practitioners. In the beginning phase, it can start with 2 seconds and can be increased up to 20 seconds. It is an advanced practice done without the retention of breath. To command this, it is very necessary to learn this pranayama under the guidance of expert yoga teachers. Anulom Vilom is a breathing technique for respiratory problems and asthma.

With the practice of Anulom Vilom, it helps to facilitate proper lung functioning, mitigates the stress, and lifts your mood to keep you away from stress. There's no doubt about the fact that Anulom Vilom is the most suitable pranayama for all. The ideal

breathing technique helps you to maintain heart health. Apart from this, it helps you to improve the immune system so that it is easy to fight with general issues like cough and cold. This is the best for yoga beginners who want to command their breath and live a life full of peace.

**Difference between Nadi Sodhan and Anulom Vilom Pranayama**

<b>Anulom Vilom</b>	<b>Nadi Sodhan</b>
<ul style="list-style-type: none"> <li>• In Anulom Vilom, there is no need to hold the breath, whereas, in Nadi Sodhan, one needs to hold the breath inside for as long as possible. You can start with the practice of 2 second Inhale,5 second retention and 8 second exhalation.</li> <li>• In Anulom Vilom air is inhaled from left nostrils and exhaled from the right one, after that it is inhaled from the right nostril and exhaled from the left one.</li> </ul>	<ul style="list-style-type: none"> <li>• In Nadi Shodhan, the air is inhaled from left nostrils hold the breath and exhaled from the right one. The second time the air is inhaled from the right nostril holds the breath and exhale from the left one.</li> </ul>

Our both the Nostrils are connected to anti directional area of Brain. When you Inhale from left, you try to supply energy to awaken right side of mind. and when you take breath (Prana) from right nostril, you try to awaken the left side of Brain.

**The Bottom Lines**

These two pranayamas are best for those who want to lead a better life. Regular practice will help you to control your breath as well as raise your spirituality level. The two can easily be learned under expert guidance.

Want to test yourself if have any respiratory symptoms, Watch the video and try deep breathing Pranayama to check if you are dealing with any breathing issues.

**Conclusion**

Nadi shodhana pranayama is a breathing technique that works at both the physical and mental levels. Nadi shodhana plays a vital role in controlling our life and to rid over the emotions which troubles us whole life. It has an wonderful quality which cherishes our life and helps in awakening of our life. So make it as a habit for the cherishment of our life. It is a Hatha yoga pranayama technique that purifies the body's energy channels, or nadis. The state of wellbeing is know by individuals physical, mental and emotional health. This pranayama improves the pulse and casts off all impurities. By attaining perfection in this pranayama body becomes light and one gains full control of the nerves and body.

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# 13

## TEACHING AND LEARNING WITH DIGITAL TECHNOLOGY INTEGRATION IS CHANGING THE FACE OF PHYSICAL EDUCATION IN CLASSROOMS- AN OVERVIEW

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### ABSTRACT

*By using technology in the classroom, both teachers and students can develop skills essential for the 21st century. Students can gain the skills they will need to be successful in the future. Modern learning is about collaborating with others, solving complex problems, critical thinking, developing different forms of communication and leadership skills, and improving motivation and productivity. What is more, technology can help develop many practical skills, including creating presentations, learning to differentiate reliable from unreliable sources on the Internet, maintaining proper online etiquette, and writing emails. These are very important skills that can be developed in the classroom.*

**Keyword:** *Pedometers, Accelerometers, Integration, Digital World, physical activities, 21<sup>st</sup> century.*

### Introduction

Physical education is at a crossroads in the 21st century. It is a commonly accepted belief that technology is a cause for a decrease in physical activity in students or youth. To combat this there are an increasingly vast amount of Apps and programs that use technology to promote physical and mental health. Specifically, there is technology that can support students and teachers in the Physical Education classroom. These technological tools are listed below and can be incorporated into everyday curriculum. It is important to consider, when planning to use technology in the classroom that "for technology to have a powerful impact on learning, it needs to engage students in the learning process, encourage higher-order thinking skills and be meaningful to the student."

Technology has had a direct impact on the health and wellness of our youth today. Children are no longer heading outside after school to play hide and seek or tag, but rather are heading indoors to play video games or watch TV. "Playing digital games (video, computer and console games), or using computer may be other sedentary behaviors related to the development of overweight and obesity." Maybe, instead of eliminating technology, as it is an inevitable staple in our society, physical educators should embrace it and use it to encourage youth to be more active.

### Advancements and Technology in physical education and health

The introduction of the internet, smart phones and interactive video games have welcomed a new realm of ways to stay physically active. The internet opened doors for such platforms as blogs or websites, where teachers can create classroom websites, communicate with students and parents and post videos and other motivational tools. To take it a step further, the introduction of smart phones not only allow students to access the internet from anywhere, but they allow for students to download Apps which can help with motivation, tracking distances and even calorie counting. Finally, interactive video games

can actually be used to literally workout, in other words you no long have to sit still to play video games.

#### **Uses of Technology in the classroom**

It is important to acknowledge that students are already interested and engaged in using technology, this creates many amazing opportunities for schools and teachers to benefit from integrating some forms of technology in the classroom and to make teaching and learning more effective. Here are some of the main benefits of using technology in the classroom.

##### **(a). Improves engagement**

When technology is integrated into lessons, students are expected to be more interested in the subjects they are studying. Technology provides different opportunities to make learning more fun and enjoyable in terms of teaching same things in new ways. For instance, delivering teaching through gamification, taking students on virtual field trips and using other online learning resources. What is more, technology can encourage a more active participation in the learning process which can be hard to achieve through a traditional lecture environment.

##### **(b). Improves knowledge retention**

Students who are engaged and interested in things they are studying, are expected to have a better knowledge retention. As mentioned before, technology can help to encourage active participation in the classroom which also is a very important factor for increased knowledge retention. Different forms of technology can be used to experiment with and decide what works best for students in terms of retaining their knowledge.

##### **(c). Encourages individual learning**

No one learns in the same way because of different learning styles and different abilities. Technology provides great opportunities for making learning more effective for everyone with different needs. For example, students can learn at their own speed, review difficult concepts or skip ahead if they need to. What is more, technology can provide more opportunities for struggling or disabled students. Access to the Internet gives students access to a broad range of resources to conduct research in different ways, which in turn can increase the engagement.

##### **(d). Encourages collaboration**

Students can practice collaboration skills by getting involved in different online activities. For instance, working on different projects by collaborating with others on forums or by sharing documents on their virtual learning environments. Technology can encourage collaboration with students in the same classroom, same school and even with other classrooms around the world.

#### **Students can learn useful life skills through technology**

The history of Physical Education has included technology throughout its development and "technological advances offer new ways to train and improve the human body for all types of physical activity." Using technology to monitor physical health is hardly a new innovation. "For years, pedometers, accelerometers, and heart rate monitors have been used as motivational tools." In recent years, these technologies have been made more widely available to the general public. As a physical education teacher with limited funding, these technologies would not be realistic for use in the classroom, therefore more widely available and inexpensive technologies may be more effective.

#### **Benefits for teachers**

Teachers can use different apps or trusted online resources to enhance the traditional ways of teaching and to keep students more engaged. Virtual lesson plans, grading software and online assessments can help teachers save a lot time. This valuable time can be used for working with students who are struggling. What is more, having virtual learning environments in schools enhances collaboration and knowledge sharing between teachers.

### **Technology Integration in Physical Education- state and trends of current research and practice**

The characteristic that makes physical education unique among school subjects is human movement and the understanding of the subject as a vehicle of physical activity. Hence, the human body may be regarded as the main media in physical education class, which may lead to a perceived missing link between technology and physical education from the common sense perspective. Two strands of argumentation can be identified that may explain this missing link perception.

- ❖ **Firstly**, media and ICT may appear as a threat to children and adolescents, taking away precious physical activity from leisure. Mass media describes youth even as being “fat, stupid, and lazy”, caused by excessive media consumption. Media and technology is therefore perceived as some sort of counter measure against healthy physical activity, which [the latter] should be in the center of physical education and be promoted by it. In this argumentation, physical education compensates for the lack of physical activity in their daily lives outside school, whereas technology is held as a foreign object, which is contrary to physical activity.
- ❖ **Secondly**, physical education may lack in importance and reputation, compared to other “major” school subjects. As physical education has not been included in big international technology studies, focus of global research and policy makers may have shifted to major subjects, leaving out physical education in the following.

On the other hand, there is strong evidence in the form of published literature, media presence and on portals on the Internet that physical education and technology are a fruitful and beneficiary coupling.

#### **6 Ways to Integrate Technology into Physical Education**

Teaching physical education can be challenging for any number of reasons, from a lack of equipment to keeping students engaged. To meet these challenges, some educators are turning to technology to create more dynamic classes that work for students with a wide range of fitness levels. Here are some examples of technology and how you can use them in your classes.

##### **(a). Pedometers**

Pedometers are probably one of the first examples that come to mind when discussing technology and physical activity. Measuring steps is one of the easiest ways to measure physical activity, and pedometers can be used by a wide range of age groups. Another benefit of using pedometers is they can be used in a variety of tasks, such as doing household chores or scavenger hunts. One issue to remember with pedometers and heart rate monitors is that target rate are different for children with different abilities and activity levels, so be sure to plan accordingly.

##### **(b). Heart Rate Monitors**

Heart rate Monitors are used to measure a student’s pulse while engaged in activities. Using these devices allows educators and students to aim for an individualized target heart rate that is challenging to maintain but not too difficult to achieve. By customizing student goals, students feel more involved and more empowered to continue with fitness. Once more, there are different target rates depending on age and ability, so remember to take those into consideration.

##### **(c). Health Tracking**

Taking the data used by heart monitors and pedometers is vital to creating a long-term plan for advancing health. Some pedometers and heart monitors have connectivity built in, which makes the process easier. Using tracking programs or monitoring systems provides educators with tools useful in creating custom goals for the students. Using these kinds of programs allows for instant feedback that allows students the opportunity to adjust their goals and how they wish to achieve them.

**(d). Apps**

With the explosion in mobile technology, physical education have a wealth of tools. For examples, Map my Fitness and My Fitness Pal allow for movement tracking as well as nutritional help. Some apps also assist with improving athletic activities such as basketball. Then, the students can compare what they with what the app instructs. Another idea is to use Google Earth to show students distances and challenge them to walk those distances—for example, the height of Mount Everest or the distance between their home and another location.

**(e). Video Resources**

Sites such as YouTube and Vimeo offer a wide range of tools for educators. If an educator wants to teach something such as dance or yoga, there is a wide variety of how-to videos that can apply to any age group. Additionally, some educators create video projects where student groups create an instructional video to teach something to the rest of the class.

**(f). Games**

There is a steady market of “exergames,” such as Wii Sports and Dance Dance Revolution. To use these for a whole class, have a few students using the controllers (taking turns is crucial!) and have the rest of the class follow along with them. For these games, and any video resources, projecting the video on a wall or screen allows everybody to see what is happening.

Adapting to new technology can be challenging for instructors. Sometimes, physical education instructors can feel as if technology does not apply to their subject. However, by embracing technology, physical education instructors create a more varied and dynamic classroom. They are also able to appeal to the interests of many different students and ability types. Using technology to teach physical health allows educators to create more activities and show how important their goals are.

**Applying Technology in Physical Education Class: Lots of Possibilities**

For some time now, using technology to facilitate learning in K-12 classrooms has been a growing focus in many schools. From art classes to science projects, the technology tools have been increasingly instrumental to enhancing the learning process. But how can technology be applied in physical education classes? In this article, we'll take a look at some way in which P.E. classes may be improved by using technology.

**Benefits of incorporating technology into physical education classes**

One of the benefits of incorporating technology into physical education classes is that learning can be enhanced beyond strategies, skills, and rules between individual and team sports. It becomes possible to align physical education with other areas such as math's or geography, and physical activities can be individualized to create optimal challenges for students.

**Physical Education Tech Tools**

**(i). Physical Education Apps**

The boom in mobile technology has provided physical educators with a wealth of tools. There are numerous apps that can be taken advantage of, with some allowing for movement tracking and nutritional help, while others assist in enhancing athletic activities like basketball. Apps involving video and picture analysis can be used to examine athletic movements, and ultimately help to improve physical skills.

Physical educators should not shy away from trial and error while thinking of new ways to use apps in and beyond the classroom. Apps like MyFitness Pal, Coach's Eye, and Team shake show the breadth of offerings available and can get you thinking about many different possibilities.

**(ii). Wearable Tech**

Wearable technology has changed the way we collect and evaluate personal data. With increasing awareness in physical education departments about the importance of feedback from daily activities, technological tools such as Pedometers, smart watches, and heart rate

monitors are increasingly being used. With wearable technology, students will be able to track and analyse their heart rates, activity levels, or the number of steps to take within a time frame.

**(iii). Virtual Connections**

Effective learning involves two-way communication where students are able to engage in discussion and challenge the teacher's ideas in order to achieve a deeper understanding. Many classrooms have already started taking advantage of the online world by creating classroom blogs or websites. A classroom website is valuable for encouraging discussion after class, or enabling communication for students applying Physical education techniques or working on sport practices or exercise outside of classroom.

**(iv). Gaming Systems**

Interactive video games such as Dance Dance Revolution, Wii Fit, and Wii Sports, can be invaluable in promoting physical activity of students and are already in use across many physical education centers. They serve as a reasonable alternative to exercising in bad weather and produce results similar to those seen with outdoor physical activity. Physical education teachers can easily tap into students' love of video games to foster interest in physical education. Video games are extremely engaging and immersive, and can be taken beyond the school environment and continued at home.

**(v). Video Resources**

As a result of advancements in technology and faster internet becoming available today, it is now possible to stream videos on YouTube and Vimeo. Physical education teachers can take advantage of this and recommend workout videos to students, as well as other types of content which provide useful demonstrations for skill development.

Whether they are dance or yoga videos, students may become so entranced with some YouTube channels that follow them, encouraging them to do even more than the teacher asks. No matter the level of the class, teachers will be able to find age-appropriate videos to share.

**Digital Technology is changing the face of education**

How is digital technology changing education? An easier question to answer perhaps is: How is digital technology not changing education. Read more to learn about how digital technology is revolutionizing the face of schools and education on a global scale.

**(a) Availability of Online Classes and Programs:** One of the first easy observations regarding digital technology and education is that online schools and classes are becoming widely available. Even free online classes called "MOOC's" otherwise known as Massive Open Online Courses are becoming widely popular. Online courses and full online programs are making it possible for learners young and old to unite from all over the world at any given moment, and to have easy access to a course or program from home.

**(b). Learnings Texts Are Now Digitalized:** Check the backpack of many high school and college students, and you will find that physicals textbooks are slowly being replaced with iPads and various forms of devices connected to online media. With the fast-paced development of online media, e-books, e-readers, and learning programs developed for iPads, iPhones, and smartphones, the textbook is becoming "extinct" in some areas. You can forget the time when your backpack was loaded down with a stack of textbooks, because learning is going online.

**(c). Mobile Learning:** A combination of the result of the sharp and sudden increase in the availability of online courses and programs, and the wide availability of online resources and books, you can now study from your phone. MOOC's such as the well-known "Future Learn" MOOC allow you to access your course(s) from your smartphone. Just open the course, plug in your headphones, and follow the content and the classroom discussions! Whether you are riding the subway or taking a bus or a train you can instantly connect to the world full of learners and learning.

**(d). Personalized Teaching and Learning:** Due to the increase in the presence of technology in the classroom, teachers now have more ability to personalize lessons, instructions, and projects for each group or child. By using devices and programs to distribute classwork and assignments, teachers can personalize lessons and focus on the work of each student. Individualized lessons can be provided to each student, and learning tools enable students to work, perform, and excel at their own pace. Teachers can also now provide feedback, grades, and reports directly to students through online platforms, and online school portals and log-ins.

**(e). Guidance and Instruction from Diverse Teachers:** The increase of digital technology has also affected the availability and access to diverse teachers and instructors for students worldwide. One student can be present in a multi-cultural online classroom with teachers with origins from South Africa, England, Brazil, Spain, Russia, and Poland all at the same time. Teachers from different backgrounds and countries all bring their own unique perspectives, cultures, and languages to the table of learning.

**(f). Data Driven Instructions and Results:** Another change that is occurring due to the rise of digital technology is the increase in data-driven instruction and results. Although some teachers are being forced to use online grading tools and devices, analysis tools are also becoming more precise. These devices and grading tools can provide more accurate results regarding student performance, but can also result in a teacher's limited ability to judge a student's performance based on the content of their writing, classroom performance, and other contributions.

#### **What Does the Increase in Digital Technology Mean for the Future?**

- The increase in digital technology corresponds with the increase in the use of technology in both virtual and real-life classrooms.
- Although many advantages come with digitalized learning, there are also disadvantages that you should be aware of, including and not limited to minimal to zero face-to-face interaction in the classroom, and the lack of ability to work in person with your study partners and your teacher.
- Despite these disadvantages, overall digital technology has enhanced the future of learning and has enabled students and educators alike from all over the world to work together, spread knowledge, and increase learning opportunities for everyone.

#### **Conclusion**

Physical education is at a crossroads in the 21st century. Despite continued reductions, evidence indicates that physical activity provides a wealth of benefits to children, including the development of healthy life habits, improved concentration, healthier bone development, improved classroom behavior, increased graduation rates, and higher educational aspirations. Further, more time in physical education does not have a negative effect on learning in other subjects and reduces the likelihood for childhood obesity. Although findings such as these are encouraging, physical education teachers must be able to demonstrate program outcomes in a meaningful way. Advances in educational technology provide several viable approaches to collecting and communicating this evidence. Armed with data gathered through technology, physical education teachers become better equipped when trying to convince various stakeholders--including students, parents, colleagues, and administrators--of the merits of a quality physical education program.

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# 14

## POSITIVE AND NEGATIVE EFFECTS OF MEDIA ON SPORTS AND IT'S INFLUENCE ON ATHLETIC PERFORMANCE- AN OVERVIEW

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### ABSTRACT

*The uses of four media (newspapers, television, radio or the Internet) for sports information were related to self-perceptions of emotions, motivations and attitudes. That newspaper and Internet use reduced feelings of stress among the athletes, perhaps due to athletes' use of the two media as diversions from the pressures of competitive athletics. Television use was not related to any of the measures of athletes' self-perceptions. On the one hand, media use could have a negative impact on student athletes. Media coverage could provide unrealistic expectations about athletic performances by highlighting the stars in sports. Athletes may feel pressured into performing at a level similar to star athletes covered in the media. On the other hand, media use could have a positive impact on student athletes. Media coverage may provide a distraction or entertainment that could help athletes relieve pressure.*

**Keywords:** College Athletes, Media Hype, Self-Perception and Media Exposure, Media Hype and Athlete Performance.

### Introduction

Sport is generally recognized as activities which are based in physical athleticism or physical dexterity. A number of competitive, but non-physical, activities claim recognition as mind sports. The International Olympic Committee (through ARISF) recognizes both chess and bridge as bonfire sports and Sport Accord, the international sports federation association, recognizes five non-physical sports although limits the amount of mind games which can be admitted as sports. Sports are usually governed by a set of rules or customs, which serve to ensure fair competition. Winning can be determined by physical events such as scoring goals or crossing a line first, or by the determination of judges who are scoring elements of the sporting performance, including objective or subjective measures such as technical performance or artistic impression.

### Real time interaction between fans and stars

The real time interaction between social media and sports is closely connected to the interaction between fans and sports stars. Fans want to connect and interact with the stars on the field and vice versa.

### The Sport-Media Partnership

Sport has become more of a product that is manufactured, bought and sold. The sports organizations have gone along with this and have used agents and marketing companies to get their particular products into the media sport market place. Media not only can the sporting day change, but so too can be the reason The media involvement to the changing face of sport Today media, especially television offer sport added attractions in terms of finance from broadcasting fees and exposure to advertisers, sponsors and a wider

audience. So, sports organizations are very keen to get involved with media. To some extent, media also has some degree control over sports organizations and sports. This can be harmful to sports.

The actual structure and presentational style of an event may be strongly reflective of the media's interests. Sports sovereignty over its own destiny has weakened. Media is playing an important role in both the construction and destruction of sporting structures and practices. The media has also helped in developing the new competitions, events and leagues. New sport forms have appeared and old ones have become of less importance. The rules have been changed and playing conditions revised so as to enhance media coverage. Even the clothes, athletes wear and equipment they use have come to reflect media related interests. Name on the players' kit help the viewers, sponsor's logos proliferate.

#### **Who are the winners and losers?**

Sports that are especially attractive to the media have gained for greater status, exposure and economic wealth compared with other sports. The introduction of media money and influence has also had an impact in pulling elite sport away from its roots. The elite performers also become the part of marketing with media and also the part of the vast amounts of media money that have flowed into sport. The elite players get very high salaries aided by agents of any sports companies. Their degree of control over their own lives is brought into question. The media creates sporting personalities to help sell their programmes and newspapers.

#### **The Media Professionals**

The media professionals (e.g. producers, directors, commentators, reports and cameramen) exist to produce a media sports package that aims to attract interest and excite their audience. Their emphasis is in making the product attractive and to this end it is sometimes difficult to establish where the sport starts and the media event ends. Selling a television sports programme is the paramount concern. Decisions are taken for the audience; you are directed what to see and read and how to make sense of it. The media professionals construct and frame the sport experience their audience.

#### **(i). Dramatization**

A powerful characteristic of media sport production is that of dramatization. The media sets up story lines around the sporting event and the individuals involved. They work to script the event so as to excite. The media claim to get their audience as close as possible to the action. You can see all the actions of the players. Cameras are now even going into the changing rooms. This media creates heroes and villains in the sports.

#### **(ii). The Media Sport Audience**

The choice and knowledge about sports often audiences depend on what the media presents before them. Thus, we see that media has captured the sports events and choices, knowledge and all other informations about players. On one hand, we feel handicapped about sports without media.

#### **Positive Effects of media on sports**

The media coverage of sport has good effects:

- **Money** - Media companies pay for the rights to show a sporting event. Also, sports shown on the tv generate more sponsorship Education - People learn the rules of the sport from watching it on TV.
- **Role models** - Seeing good sports people on TV and in newspapers makes them a role model for people to look up to.
- **Inspiration** - Media brings sport to people who may not normally get to experience it otherwise. This can encourage people to get involved.
- **Coaching aid** - Watching professionals on the tv can help you see how a technique should be performed which could help your performance.

### **Negative Effects of media on sports**

The media can also have a negative effect on sport:

- **Bias** - Only the really popular sports get much attention on the TV and in newspapers etc. This doesn't help encourage people into the less popular sports
- **Lack of Attendance** - For matches that are shown on TV, ticket sales often drop
- **Overload** - There is a lot of sport on TV nowadays, some say too much!
- **Attention** - Sport stars often complain of too much attention being paid to their private lives.
- **Demands** - The media can put pressure on the organizers of sporting competitions to make the viewing experience better for TV audiences.

### **Media's Influence on Athletic Performance**

Many athletes are targets of media prey. Win or lose, their performance and life is publicly dissected by the media. Winning brings about media glorification and expectation, and/or jealousy and criticism. Losing brings forth negative judgment and more criticism. Howard Ferguson (1990) in his book, *The Edge*, said, "Criticism can be easily avoided by saying nothing, doing nothing, and being nothing. Mediocre people play it safe and avoid criticism at all costs. Champions risk criticism every time they perform." One such athlete who risked media criticism was Miki Ando.

#### **(i). Positive Vibes**

While media has potential to negatively impact athletic performance, this medium can also be used to cultivate or bring out the best in an athlete.. Most importantly, Gable stresses the importance of a coach's statements to the media and how they can serve as motivators. He believes athletes are inspired when they hear their coach's positive comments about them.

#### **(ii). The 4C's**

According to Mackenzie (1997) , mental qualities known to affect successful performance for athletes are concentration, confidence, control and commitment (the 4C's). In this study, we examine the role that overexposure to media, particularly before a "big game" affects any, or all, of these athletic qualities.

According the Mackenzie (1997), the 4C's are defined in the following ways:

- a) Concentration—ability to maintain focus
- b) Confidence—believe in one's abilities
- c) Control—ability to maintain emotional control regardless of distraction
- d) Commitment—ability to continue working to agreed goals

Mackenzie (1997) believes that the most important element in positive outcomes for athletes involve the employment of certain techniques such as relaxation, providing opportunities for the athlete to create positive mental imagery focused on concentration, and high self-perceptive and believe in one's abilities, along with the other C's can significantly be used to help an athlete engage in the 4C's.

#### **(iii). Concentration:**

This is the mental quality to focus on the task in hand. If the athlete lacks concentration then their athletic abilities will not be effectively or efficiently applied to the task. Research has identified the following types of attention focus:

The demand for concentration varies with the sport which is why we would like to survey athletes involved in individual and team sports alike.

- Sustained concentration—distance running, cycling, tennis, squash
- Short bursts of concentration—cricket, golf, shooting, athletic field events
- Intense concentration—sprinting events, bobsleigh, skiing
- Common distractions are: anxiety, mistakes, fatigue, weather, media hype, public announcements, coach, manager, opponent, negative thoughts etc.

**(iv). Confidence**

Confidence results from the comparison an athlete makes between the goal and their ability. The athlete will have self-confidence if they believe they can achieve their goal. When an athlete has self-confidence they will tend to: persevere even when things are not going to plan, show enthusiasm, be positive in their approach and take their share of the responsibility in success and fail. This is why we are measuring self-esteem and confidence.

**(v). Control**

Identifying when an athlete feels a particular emotion and understanding the reason for the feelings is an important stage of helping an athlete gain emotional control. An athlete's ability to maintain control of their emotions in the face of adversity and remain positive is essential to successful performance. Two emotions that are often associated with poor performance and emotional control are anxiety and anger.

Anxiety comes in two forms—Physical (butterflies, sweating, nausea, needing the toilet) and Mental (worry, negative thoughts, confusion, lack of concentration). Relaxation is a technique that can be used to reduce anxiety.

**(vi). Commitment**

Sports performance depends on the athlete being fully committed to numerous goals over many years. In competition with these goals the athlete will have many aspects of daily life to manage. The many competing interests and commitments include studies, family/partner, friends, social life and other hobbies/sports.

Within the athlete's sport, commitment can be undermined by:

- i. A perceived lack of progress or improvement
- ii. Not being sufficiently involved in developing the training program
- iii. Not understanding the objectives of the training program
- iv. Injury
- v. Lack of enjoyment
- vi. Anxiety about performance—competition (which could come from the media???)
- vii. Becoming bored
- viii. Coach athlete not working as a team
- ix. Lack of commitment by other athletes

**A unique relationship between sports, media and sports**

Daily news about sports always engages the befitting treatment of any event. Obviously the main purpose of any media association is to deliver the exclusive details which are supplied by the distinct group players, associations, associations and other fair associations that are affiliated with some large-scale event.

- The increasing attractiveness of the mega sports happenings in the last 100 years has an international influence on all sports viewers and a gigantic addition of cash is always engaged with all this unique mechanism.
- Whether it's about arranging the well liked sporting event like Commonwealth Games or Cricket World Cup, all these undertakings captivated huge number of viewership.
- The argument goes on, sports have been developed as more comparable entity due to its correct treatment and data about better gear has arisen. Cricket associations, baseball helmets, cricket bats, soccer uniform, hockey skates, and other gear have all glimpsed substantial alterations in the sports news.
- In the long run sports like soccer, cricket, volleyball and other exclusive sports events World Cup and Olympics are more enclosed because of their ideal viewership in the world which furthermore captured a large number of the dignified viewers.
- Similarly latest innovations and technology has a significant function in sporting activities, if compared to an athlete's mindset, equipment characteristics.

### **Conclusion**

Sport (or sports) in all forms of usually competitive physical activity which, through casual or organized participation, aim to use, maintain or improve physical ability and skills while providing entertainment to participants and in some cases, spectators either in teams or competing as individuals. In many ways, both today's sport and the media are classic outcomes and, indeed, icons of the far-reaching social, economic and technological change that characterized the twentieth century. Each has developed extensively and rapidly as a major global industry. Each plays a significant part in structuring and informing people's lives. Each has a global as well as more local scope of operation and has the structures and practices to reflect this. Importantly, they are two industries tied together in complex networks of relationships. Their respective histories of development have been fuelled and influenced by the dynamics of this partnership. The evidence of the partnership is all too apparent. The wellbeing of particular sports or, indeed, sport as whole has become linked to income generated directly or indirectly from the media. The way in which sport fills newspaper pages and television and radio schedules bears testimony to the influence it has on the structure and extent of media activity.

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# 15

## ENGAGING IN REGULAR PHYSICAL ACTIVITIES CONFERS A MULTITUDE OF BENEFITS ON HUMAN HEALTH, IMPACTING VARIOUS FACETS OF WELL-BEING

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### **Introduction:**

The contemporary era is marked by health hazards attributed to pollution, rapid industrialization, and increased mechanization. Shifts in people's lifestyles are evident, with limited physical activity relegated to mundane tasks such as operating remote controls for appliances and devices like televisions and phones. The diminishing daily physical exertion has contributed to various health-related issues. This stark reality underscores the essential need for physical education activities. In an age where the pursuit of fitness and well-being is paramount, engaging in regular physical activities becomes imperative. These activities serve as a catalyst for the proper development of body muscles and other physiological systems, mitigating the risk of numerous health-related problems and diseases. To achieve optimal fitness levels, individuals should adhere to a diverse range of fitness exercises, maintaining a consistent routine without breaks. Neglecting a regular fitness program poses the risk of a decline in overall fitness, emphasizing the significance of sustained physical activity.

A sedentary individual may transition from good health to physical unfitness due to a lack of exercise. Insufficient or irregular physical activity leads to muscular inefficiency. Therefore, it is crucial to incorporate fitness exercises into daily routines. Exercise is linked to numerous physical and physiological advantages, enhancing well-being, and promoting effective functioning. Engaging in regular exercise offers an enjoyable way to utilize leisure time. Individuals of all age groups, especially those who lead sedentary lifestyles, can enhance their health and overall well-being by participating in moderate-intensity activities consistently. The benefits of regular exercise extend to a significant reduction in the risk of developing various health issues, including heart disease, stroke, high blood pressure, certain cancers, and diabetes. Moreover, exercise contributes to stress reduction and alleviates symptoms of anxiety and depression. Maintaining physical fitness at any age proves to be an invaluable asset to one's overall health.

### **Promotion of Cardiovascular Well-being:**

Improvement of Cardiovascular Health Maintaining a healthy weight is mostly dependent on regular physical exercise. Exercise promotes heart health by strengthening blood circulation, lowering blood pressure, and increasing cardiovascular fitness. By lowering the risk of numerous cardiovascular illnesses, these beneficial benefits help to maintain a healthier cardiovascular system. One of the most important tactics for promoting and preserving cardiovascular health is leading an active lifestyle. Participating in regular physical activities contributes to heart health by enhancing blood circulation and reducing the risk of cardiovascular diseases.

### **Effective Weight Control:**

Effective Weight Management One of the best ways to regulate and manage body weight is to regularly engage in physical activity. Including exercise in one's regimen promotes lean muscle mass, speeds up metabolism, and burns calories—all of which aid in

efficient weight control. A balanced diet and this practice together create a comprehensive plan for reaching and keeping a healthy weight. Physical activities play a pivotal role in weight management, aiding in calorie expenditure and fostering a healthy balance between intake and usage.

**Strengthened Muscles and Bones:**

Increased Skeletal and Muscular Strength Engaging in regular physical activity helps to build stronger bones and muscles. Exercises like weightlifting, resistance training, and weight-bearing activities encourage the growth of muscle mass and enhance bone density. This improves general musculoskeletal well-being by lowering the risk of diseases like osteoporosis and increasing physical strength. Weight-bearing exercises and resistance training promote robust muscular and skeletal systems, reducing vulnerability to conditions like osteoporosis.

**Positive Impact on Mental Health:**

Positive Impacts on Mental Health Participating in physical activity on a regular basis improves mental wellness. Exercise is known to cause the production of endorphins, which are neurotransmitters that naturally elevate mood by lowering stress and anxiety and fostering emotions of happiness. Furthermore, exercise promotes healthier sleep patterns, increased focus, and cognitive performance. The outcome has a favourable impact on mental health and offers a comprehensive strategy for fitness and health. Routine exercise is linked to elevated mood, stress reduction, and overall mental well-being, contributing to the alleviation of depression and anxiety symptoms.

**Optimized Metabolic Health:**

Improved Metabolic Well-being Maintaining optimal metabolic health requires regular physical exercise. Exercise promotes a healthier metabolism by assisting with weight management, blood sugar regulation, and insulin sensitivity. Regular physical activity promotes metabolic processes, which are vital for general health and the prevention of metabolic diseases like diabetes. Examples of these processes include strength training and aerobic exercise. Regular physical activity enhances insulin sensitivity, aiding in the prevention and control of type 2 diabetes, and supports overall metabolic health.

**Enhanced Quality of Sleep:**

The connected increased physical activity with enhanced sleep quality. Regular exercise, particularly aerobic exercise, can help improve overall sleep quality and sleep patterns. Engaging in physical exercise can assist in regulating circadian cycles and promoting relaxation, both of which can facilitate faster sleep onset and deeper, more restful sleep. People who exercise on a regular basis typically report longer and higher-quality sleep, which improves their general wellbeing. Engaging in physical activities on a regular basis contributes to improved sleep quality and helps manage sleep disorders effectively.

**Reinforced Immune Function:**

Increased Immune System Function Immune system strength has been linked to regular physical exercise. Regular exercise can help strengthen immune systems and lower the chance of getting sick. Exercise increases the body's immune cells' circulation, which improves their capacity to identify and get rid of infections. Regular exercise can also aid in reducing inflammation, which has been connected to a number of chronic illnesses. Exercise is essential for preserving general health and avoiding infections and illnesses since it boosts immune function. Moderate exercise is associated with a strengthened immune system, reducing susceptibility to infections and illnesses.

**Improved Flexibility and Balance:**

Increased Flexibility and Balance Engaging in physical activity on a regular basis helps to increase flexibility and balance. Stretching and yoga are two types of activities that improve flexibility and can increase range of motion in the muscles and joints. Consequently, this enhances general flexibility and lowers the possibility of stiffness-related accidents. Furthermore, exercises that test balance, such some strength training routines

and balance-focused workouts, aid in enhancing coordination and stability. People of all ages can benefit from adding exercises that improve flexibility and balance to their routines because they can increase mobility and lower their risk of falls and accidents. Activities like yoga and stretching exercises enhance flexibility and balance, particularly beneficial for preventing falls and injuries, especially in older adults.

**Extended Lifespan:**

Physical activity on a regular basis has been linked to longer lifespans. Several research indicate that leading an active lifestyle is associated with a longer and better quality of life. Engaging in physical exercise improves cardiovascular health, lowers the risk of chronic illnesses, and enhances several physiological processes, all of which contribute to overall well-being. Exercise is thought to be essential for maintaining a high quality of life as people age and for encouraging lifespan. Maintaining a regular exercise regimen that includes both strength and cardio training can improve general health and lengthen life expectancy. Regular physical activity is correlated with increased life expectancy, contributing to an overall higher quality of life in later years.

**Social Interaction and Connectivity:**

Encouraged Social Engagement and Networking Engaging in physical activities, such as team sports, courses, or group settings, promotes social contact and connectedness. Participating in group physical activities offers chances to socialize, establish rapport, and fortify social ties. Participating in physical activities that foster social interaction, like walking with friends or taking a fitness class, is beneficial for mental health and a feeling of community. This kind of social connection can be very helpful in lowering feelings of loneliness and encouraging an optimistic view on life. Participating in group physical activities on a regular basis not only improves physical health but also offers a means of forming a social support system. Participating in group activities or sports promotes social connections, fostering a sense of community and support.

**Potential Cancer Risk Reduction:**

Decreased Cancer Risk is a link between regular physical activity and a decreased risk of several cancers. Regular exercise may help lower the incidence of some malignancies, such as breast, colon, and endometrial cancers, according to several studies. The intricate processes underlying this protective effect might include things like better immunological response, less inflammatory response, and hormonal balance. Exercise is one of the lifestyle variables that people may modify to potentially reduce their risk of cancer, even if it cannot provide prevention on its own. Regular exercise along with other health-promoting lifestyle choices can help promote general well-being and lower the risk of developing cancer. Some studies suggest that regular exercise may lower the risk of specific cancers.

**Enhanced Cognitive Function:**

Enhanced Mental Ability Regular physical activity has been associated with improved cognitive performance. Exercise appears to improve memory, attention, processing speed, and other elements of cognitive function, according to a large body of research. Increased blood flow to the brain through physical exercise is linked to the creation of new neurons and the maintenance of general brain health. Exercise has also been demonstrated to trigger the production of neurotrophic factors and neurotransmitters, both of which are essential for learning and memory functions. Exercise has a beneficial effect on cognitive performance at every stage of life, from early childhood to old age. Including frequent physical activity in one's routine may help preserve and enhance cognitive capacities throughout time. Physical activity is associated with improved cognitive abilities, including memory and learning.

**Reduced Susceptibility to Chronic Diseases:**

Reduced susceptibility to long-term illnesses Frequent physical activity has been repeatedly linked to a lower risk of developing chronic illnesses. People who lead active lifestyles are less likely to suffer from high blood pressure, heart disease, stroke, type 2

diabetes, and several types of cancer. The favorable benefits of exercise on metabolic health, cardiovascular function, and immune system control contribute to this lowered risk of chronic illnesses. By reducing the risk of long-term health issues, leading an active lifestyle is a preventative step that may greatly improve general health and well-being. Consistent exercise diminishes the risk of chronic ailments such as heart disease, stroke, and certain cancers. Individualizing the type, duration, and intensity of physical activity is crucial, and seeking guidance from healthcare professionals or fitness experts ensures the development of a tailored exercise routine aligned with specific health needs and goals.

**Cholesterol:**

All the body's cells contain the fatty, wax-like material known as cholesterol. It is vital to the body's operations, helping in both the generation of necessary hormones and the digestion of food. It has been shown that engaging in regular physical exercise lowers cholesterol, especially high-density lipoprotein (HDL) cholesterol. Extensive research has demonstrated a relationship between high blood cholesterol and the prevalence of coronary heart disease (CHD). Regular exercise has been demonstrated to lower the risk of coronary heart disease and assist control cholesterol levels, improving cardiovascular health.

**Strengthen your ones and Muscles:**

Engaging in consistent physical exercise helps to build stronger muscles and bones. Weight-bearing activities that promote bone development and support bone density maintenance include jogging, walking, and resistance training. Exercises that build muscle, such as bodyweight exercises or lifting weights, also improve muscle growth and function. This promotes long-term musculoskeletal health by lowering the risk of diseases like osteoporosis and frailty in addition to enhancing general physical strength. In fact, several studies have repeatedly shown that a range of physical activities, such as aerobic workouts, muscle- and bone-strengthening exercises of at least moderate intensity, can help to slow down the age-related loss of bone density. To successfully stimulate bone formation, progressive workouts that take into account the diversity and specificity of the load must be incorporated. Just like muscles, bones get stronger when they are put under stress during activity. This procedure is not only necessary for developing strong bones in childhood but also for preserving bone strength as one ages. Exercise-induced stress causes bone to adapt because it is a living tissue, and this results in increased bone density. This adaptation process is best supported by appropriate diet, which includes enough calcium and

**Conclusion:**

Any action intended to maintain or increase physical fitness and general health is considered exercise. Regular exercise has several advantages for people of all ages, regardless of gender. Exercise improves one's quality of life, therefore learning how to make it more accessible, secure, and pleasurable is essential. Including exercise in one's routine provides benefits for mental and emotional well-being in addition to supporting physical well-being. In conclusion, regular engagement in physical activities emerges as a powerful contributor to overall human health, influencing various dimensions of well-being. The diverse benefits encompass cardiovascular health, muscular and skeletal strength, weight control, mental well-being, metabolic optimization, improved sleep, immune reinforcement, enhanced flexibility and balance, cognitive function, and potential risk reduction for chronic diseases and cancer. This holistic approach to health promotion underscores the significance of incorporating regular exercise into daily life for a comprehensive enhancement of well-being.

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# 16

## HEALTH AND WELLNESS IN HIGHER EDUCATION INSTITUTIONS: A TRANSFORMATIVE FRAMEWORK FOR PHYSICAL EDUCATION DISCIPLINE

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### ABSTRACT

*The apparent benefits of health and wellness Teaching in undergraduate education are substantiated by a number of studies in relation to the place, impact and purpose of Wellness curricula in physical education and sports. Many researchers commend that health and Wellness curriculum design must also include individual experiences, philosophical practices and active self-managed teaching and learning approaches in order to legitimise the implementation of health and wellness as a particular lifestyle approach. Wellness Education provides opportunities to engage in learning self-regulation skills both within and beyond the context of the Physical Wellness paradigm. An athlete success is optimised by creating authentic opportunities to develop and practice self-regulation strategies that facilitate making meaning of life's experiences. Such opportunities include provision of options for self-determined outcomes and are scaffolded according to athlete needs, thus, constructing a learner-centred curriculum in Physical Education would potentially benefit by overlaying principles from the domains of Self Determination Theory, Self-Regulated Learning and Transformative Education Theory to highlight reliable, transformative learning as a lifelong approach to Health and Wellness in Physical Education Curricula.*

**Keywords:** *Health and Wellness Education, Transformative Learning, Self-regulation, Physical Education, Higher Education Institutions*

### Introduction

Higher Education Institutions have augmented their consideration to students' wellbeing over recent years. This change aligns with a drive in wider Indian society beginning in the early 2020s, when the government began to increase efforts related to health and wellbeing in the workplace with *Healthy People*<sup>1</sup> While higher education's role in supporting student wellbeing has incrementally improved over the better part of the past few years, documentation from the recent years includes the integration of yoga, health and wellbeing in sports and into higher education institutions. Students in Higher Education Institutions report high levels of intellectual health issues and psychological anguish. Research findings on performance-orientated students, such as athletes, suggest that the demands of highly skilled vocations may increase wellbeing while being detrimental to both physical and mental health. In providing timely and suitable help, institutions need to comprehend what areas of health and wellbeing are conceded in different student groups.

Higher education incorporates two major transitional stages in life, firstly, moving from school toward self-directed learning and from 'home' toward independent living, followed by preparation for professional life, often through developing interpersonal

competencies and adult life skills (Malebo et al., 2007; Hewitt, 2019). These variations are thought to influence directly and indirectly on the economic, social, physical and psychological aspects of health and wellbeing of students (Nissen et al., 2019). In general, studies of students in higher education (henceforth: HE) have reported higher levels of mental health problems relative to the general population.

#### **Health and Wellness in Higher Education**

There has been no organization and classification of a distinct body of literature devoted to Health Wellness in higher education. The variety of contributing theories and models presented in this paper presents a representation of the emerging field of Health and Wellness Education within the University settings. The concept of Wellness has evolved as a construct that is linked, yet not synonymous, with Health. Since the 1960's multiple definitions and models relating to Health and Wellness have been developed. Additional to these is the construct of "psychological wellbeing", which may be considered as embedded in the Wellness construct. Paradigmatically, the Wellness construct differs from Health. Wellness stems from a strengths-based perspective whilst Health continues to be framed, practiced and studied from pathogenic perspectives.

Optimal wellness involves the development, improvement and practice of lifestyle choices and self-regulation that reverberate with personally meaningful frames of reference. Personal transformations are the means by which our frames of reference are refined across the lifespan. It is through critical reflection, helpful relationships and meaning making of our experiences that we construct and reconstruct our life paths. Transformative Education facilitates changes in perspective which enable one to contemplate and travel a path in life that leads to self-actualisation.

The consequence of self-regulation is recognized by Bandura (2005) in connotation with the acquisition of knowledge and skills, the achievement of potential and the level of progress in self-development. Bandura records that weak self-regulators do not achieve much progress in self-development. Considering the self-development theme running through Wellness Education, this has substantial inferences for operative health and wellness curriculum design.

#### **Health and Wellness Background, definitions**

Wellness has been defined as the active process through which the individual becomes aware of all aspects of the self and makes choices toward a healthier existence through balance and integration across multiple life dimensions (Corbin, Welk, Corbin, & Welk, 2009). An optimum level of Wellness is often described as "high-level Wellness" (Dunn, 1961).

Wellness is best conceptualised as an ongoing process rather than an endpoint, that is, a state rather than a trait. In the context of this paper, which focuses on educational processes that facilitate university student Wellness, the following description of the Wellness construct has been synthesised from the literature to encompass a framework for exploring learning approaches: Wellness is a state of being in which a person's awareness, understanding and active decision-making capacity are aligned with their values and aspirations.

Health has a variety of definitions, which have been used for different purposes over time. Health can be promoted by encouraging healthful activities, such as regular physical exercise and adequate sleep and by reducing or avoiding unhealthful activities or situations, such as smoking or excessive stress. The meaning of health has evolved over time. In keeping with the biomedical perspective, early definitions of health focused on the theme of the body's ability to function; health was seen as a state of normal function that could be disrupted from time to time by disease. An example of such a definition of health is: "a state characterized by anatomic, physiologic, and psychological integrity; ability to perform personally valued family, work, and community roles; ability to deal with physical, biological, psychological, and social stress".

### **Higher Education Curriculum and Learning**

An importance on student-centred learning environments in higher Education is evident in publications from political (Nelson, 2002), philosophical (Bandura, 2001) and educational domains (Brush & Saye, 2001; Vermunt & Verloop, 1999). The environments for such learning are designed to provide greater autonomy to students, with expanded opportunities and responsibilities for developing knowledge, skills, strategies and attitudes through engaging with resources including teaching staff and the content to be studied (Brush & Saye, 2001). Such environments aim to foster learning as change. To achieve a learner-centred curriculum in Wellness Education, three constructs warrant consideration. These are Self-Determination Theory, Self-Regulated Learning and Transformative Education Theory.

Self-determination theory (SDT) focuses on motivation and volition or control over behaviour under the influence of psychological need fulfilment within a social context. Over the past twenty years, a growing body of research originating from numerous diverse disciplines such as Education, health, psychology, anthropology and sociology has developed around the concept of self-regulation and contributed to the construct known as Self-Regulated Learning. In brief, self-regulation is the ability to develop transferable knowledge, skills and attitudes. Transformative learning equips students with the understanding and skills necessary to make a success of this transition.

### **Background**

Higher education is a key pathway for social transformation and social mobility along with the upliftment of individuals, households, and in turn communities. Considering its importance, NEP-2020 addresses this issue and provides that to ensure the physical, psychological, and emotional well-being of the students, support centres and career counsellors are to be made available for all students in the higher education institutions (HEIs). The key challenge lies in creating institutionalized provisions and practices and standard operating procedures that can ensure comprehensive protection to students from any threat and assault, physical, social, discriminatory, cultural, and linguistic causing psychological distress among students. The responsibility of HEIs is to provide complete protection to ensure the well-being of students to work and study in a congenial environment.

### **Objectives**

To make sure reasonable access to quality mental health services to all the students enrolled in Higher Educational Institutions (HEIs) with distinct emphasis in promoting physical fitness and sports activities for students, creating safeguards against academic pressure, peer-pressure, behavioural issues, stress, career concerns, depression and other issues pertaining to mental health of students, to inculcate positive thinking & emotions in student community and to promote positive and supportive network for students. All HEIs in India may make or amend their Ordinances, regulatory provisions, and other rules accordingly to ensure that the directions given in these guidelines are implemented in the best interest of students.

### **Guidelines in Promoting Students' Sports, Physical Fitness, Health and Wellness at Higher Educational Institutions**

#### **Lively Campus Life**

A vibrant campus life for students is an indispensable component of good teaching-learning environment, thoughtful valuation systems, and fair and equitable treatment to all. The various spaces for sports and cultural activities should also be created for community services and building national spirit with a larger humanistic perspective.

#### **Students Services Centre**

Every higher education institution shall have a Students Services Centre responsible for dealing with and managing the problems related to physical and mental stress and emotional adjustment. It shall have the standardized, systematic arrangements

within the relevant provision of Ordinances to provide requisite support to students especially from rural backgrounds, female students, students from divergent cultural backgrounds, and students with special needs. The SSC must have necessary resources like competent physical and mental health counsellors, physical and mental health experts, and physical / physio-psychological assessment tools to inform the students, assess them, guide them and provide necessary counselling interventions to make them feel enabled, energised and independent functionaries capable of pursuing their career goals.

#### **Physical Fitness**

Besides humanizing students, higher education institutions must focus on physical activity for all students so as to help them stay physically fit and mentally healthy. Foremost requirement of an individual is good health only than with the knowledge gained by him in higher education institutions, he is an asset for the society, otherwise with poor health resulting out of sedentary life style he becomes a liability for the society.

#### **Physical Activity Programs and Provisions**

Presently, physical activity is made mandatory in spite of higher education institutions having adequate human resources and infrastructure for physical and sports activity. It is a great irony that sports fee is charged from each of the student admitted in the institution but participation in sports activity or utilisation of sports facility is done by only 10-20 % of the total strength of the students in a higher education institution.

- The HEIs need to nurture an atmosphere in which students are asked to be physically active.
- The NSS and NCC and other avenues to engage students meaningfully should be strengthened.
- The HEIs need to create the necessary outdoor and indoor sports facilities and infrastructure on the campus.
- The Sports Council, along with Physical Education and Yoga Departments needs to create programs and opportunities for physical fitness and ensure its monitoring on a regular basis.

Health and Wellness Education as part of university curriculum provides opportunities for students to engage in learning self-regulation skills both within and beyond the context of the Wellness construct (Becker, McMahan, Allen & Nelson, 2004; Ryan & Deci, 2000). Through engagement with the principles of balance and integration across all dimensions, students may begin to explore proactive, self-directed approaches to lifestyle management.

The furthest common commendation from previous literature examining Wellness in higher learning was that curriculum design should foster personal experiences, reflective practice and active, self-managed learning approaches in order to legitimise the adoption of Wellness as a personal lifestyle approach. As we ask students to develop critical and reflective thinking skills and encourage them to care about the world around them, they may decide that some degree of personal or social transformation is required. Students will need the tools of transformative learning in order to be effective change agents; otherwise, students may feel disempowered, become pessimistic about the future, fear change, or develop a degree of cynicism towards those who promote change. We are living through a period of transformational change in society and culture. Students will be better able to understand and deal with such change if they understand the nature of transformation and the impact it has on individuals, groups, organizations and nations.

Health and Wellness Education curriculum writers must recognize that these changes mean that the world around the learner must also change. Transformative change means that power is being distributed differently and so, in order to be sustainable, all the participants in the process must be aware that “deep changes” may occur and beliefs, strategies and structures which were in place may never be the same again.

### Conclusion

By constructing a learner-centred Health and Wellness Education curriculum in higher education institutions, based on the principles of Transformative Education Theory, on the motivation embodied in Self-Determination Theory and incorporating the principles of Self-Regulated Learning, it is recommended that Health and Wellness and physical educators can construct authentic learning experiences that initiate the lifelong learning processes fundamental to Wellness. The need for a framework that links the learner perspective within a Wellness Education model is clear. While no model currently exists which integrates such a holistic approach, a model of Wellness that fits with the context and meets needs for teaching within the constraints of the university educational environment is acceptable. The HEIs should take suitable steps to implement the guidelines considering the specific local, cultural, and educational requirements to ensure effective institutionalization of such mental health services.

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# 17

## THE FACTORS INFLUENCE ON SKILL PERFORMANCE IN THE GAME OF BASKETBALL

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### ABSTRACT

*Sports and games are most effective means of socialization of man. They provide a very healthy form of recreation and help in building up character and attitudes which can prove helpful in meeting the challenges of life more effectively. Today's world is a world of competition, the rivalry to reach top and excel each other is so much that every aspect that contributes for the excellence is carefully looked in it, one of such aspects is the selection of the right person for the right event in sports and games, normally a choice of selection is given to that player or the athletes. The players without knowing their inherent potential made wrong choices because of his wrong selection the individual concern is not able to reach the top of the ladder. Now a day, there has been an ever increasing focus on attention on the study of individual differences in research. In this regard a large number of researchers are engaged in comparing the Anthropometric, Motor fitness and Psychological performance of different sections of population in terms of race or otherwise various regional backgrounds. The net results of their finding have been contradictory and there is no unanimity among the research scholars regarding inter-relationship between or the degree of influence.*

**Key Words:** *Anthropometric, Motor fitness and Psychological factors, Skill performance.*

### Introduction:

The preparation of an athlete today for achievement is a complex dynamic matter, characterized by a high level of physical and physiological efficiency and the degree of perfection of necessary skill and knowledge and proper teaching and tactics. Now a day, there has been an ever increasing focus on attention on the study of individual differences in research. Sports performance depends on several factors like condition of physical fitness, the constitution of the body, techniques, coordination related to particular sports. In this regard a large number of researchers are engaged in comparing the Anthropometric, Motor fitness and Psychological performance of different sections of population in terms of race or otherwise various regional backgrounds. The net results of their finding have been contradictory and there is no unanimity among the research scholars regarding inter-relationship between or the degree of influence.

Basketball is one of the most popular sports in the world in terms of spectator sports and players participation. It is one of the fastest game in the world. It is exciting, fast and spectacular game as it involves most continuous movement and actions. These ingredients make it challenging in many ways for the participant and a thrilling experience for the spectator.

The playing area of basketball game is relatively a smaller area, the nature of the game demands each player to make maximum exertion by doing repeated short-sprint with

a sudden stop and changes in direction during the entire game period with a little rest during the game.

Basketball players move with great speed over a limited space. It is one of the most vigorous games and requires a great variety of athletic traits. In the game of basketball all the movements are involved like passing, throwing, changing the direction quickly, and sudden stop, jumping for rebound, feinting, maneuvering the opponent while going for offensive move and guarding the opponents in the defensive. All these require rapid movements demanding frequent changes in direction. For one to respond to such situation a player should possess good motor fitness and psychological qualities.

#### **Basketball Skill Performance**

Playing Basketball requires special skills. The penetrating, fast-paced action of a typical Basketball game concurrently develops speed, hand-eye coordination and cardiovascular endurance more than any other sport, for example, moving fast back and forth across the court needs specific skills for the lower-body, while shooting, defending and passing needs specific skills for the upper-body. Therefore, it is of special importance to measure the skills and technical performance of basketball players. This can be achieved by developing the procedures for measuring the various skills involved in the sport. Therefore, it is essential to use effective measurement techniques that measure the real skills of the players. Which intern evaluates the level of the players and eventually the entire team (Al-Gendy2012).

The game of Basketball requires highly skilled players with a high level of physical conditioning. It requires an athlete with at most physical fitness in order to last the entire game. It is also very important that the player performs with maximum efficiency right through the game. To achieve this, a player is put through a very vigorous and varied training regimen which often includes for developing the requisite skill of quickness, timing and some physical conditioning as well (Moontasir 1979)

#### **Anthropometrical Variables and Basketball Performance**

Under modern conditions especially related to training for sports and games with a focus on superior performance, adequate emphasis is given for the physical structure and body builds of each individual participant for each sports or game. Therefore, it is very evident that the body builds properly known as physiognomy' gets primary emphasis at the time of selection of players for concerned sports where superior competition is involved. Coaches, physical educationists and sports scientists have always expressed a necessity to know more about the Anthropometric variables, which are helpful in improving the motor skill of the players. Hence, the trend in the field of games, sports and physical education is to assess the related components scientifically as a part of the total body build and size of each player and also to interpret how far these components are helpful in the performance in games and sports under competitive conditions.

Specific anthropometric characteristics are needed to be successful in certain sporting events. It is also important to note that there are some differences in body structure and composition of sports persons involved in individual and team sports. The tasks in some events, such as shot put or high jump, are quite specific and different from each other and so require suitable physique for success. This process whereby the physical demands of a sport lead to selection of body types best suited to that sport is known as "morphological optimization". (Bloomfield J, 1995)

#### **Motor Fitness variables and Basketball Performance**

Motor ability has been defined by Barrow, as "the present acquired and innate ability to perform motor skill of a general or fundamental nature, execution at highly specialized sports or gymnastic techniques" (Harold M. Barrow. 1971).

Every sport demands motor abilities at various levels above the average. Motor fitness is a term that describes an athlete's ability to perform effectively during sports or other physical activity. An athlete's motor fitness is a combination of five different

components such as power, speed, agility, balance and reaction time which are important mainly for success in sports.

#### **Psychological variables and Basketball Performance**

The word itself, psychomotor, implies a relationship between mind (psycho-) and action (motor). Psychology preparation is a component that has been often neglected by athletes and coaches alike, studies have shown that mental readiness was felt to be the most significant statistical link with Olympics ranking. In modern competitive sports, psychological preparation of an athlete or a team is as much important as technique of the different skills of the game on a specific line.

Psychomotor processes are a primary requirement for success in any sport more so in a dynamic sport like Basketball which requires an intensive training regimen. It has also been further found that there is a need to satisfy the high demands placed on the athletes. Basketball requires special defensive and offensive maneuvers like blocking, rebounding, dribbling, passing and shooting. Among these; shooting, a highly individualistic skill can be considered as one the most important factor that determines the outcome of the game. Self-confidence and concentration in turn helps the player to take the shot confidently.

#### **Conclusion:**

Based on the previous studies, it can be accomplished that Basketball players need to possess several features and skills sets. These are grouped under Anthropometric, Motor fitness and Psychological variables are influence the basketball players.

Leg Length may positive and significant correlations with strength measures of basketball players. Basketball game involves a ball collecting, ball throwing, different offensive and defensive actions, covering the court in minimum steps, taking lay ups and dunks, rebounding, jumping actions etc., which can be more successful with longer limbs and length of different body segments like arm length, leg length and hand length etc.

Basketball unlike other games demands very high Motor fitness. The primary motor qualities that are necessary are explosive strength, endurance, agility, speed, various coordinative abilities etc.

Self-confidence and concentration in turn helps the player to take the shot confidently. In basketball, slow reactions are considered as an obstruction. Whether in offense or defense these slow movements ultimately affect the outcome of the game. Shooting is a fast moving skill which requires the players to react as quickly as possible for the execution of the shot. We must accept anxiety symptoms as part and parcel of the competition experience; only then will anxiety begin to facilitate performance.

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# 18

## THE BENEFITS OF AEROBIC TRAINING EXERCISES FOR IMPROVING THE QUALITY OF LIFE

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### ABSTRACT

*Aerobic exercise is currently the safest sport for both young and old people. This is because aerobic training provides tiered and targeted training and acts specifically on several muscles. The general purpose of aerobic exercise is to train the body to exercise without stress and excessive psychological disturbances. Then, aerobic exercise is also done in stages such as stretching, strength, and balance of various types of muscle and joint flexibility exercises. This is very useful for the elderly to avoid injury during aerobic training and is able to reduce the psychological disorders that are often experienced by the elderly.*

**Key words:** *muscle metabolism, glycogen, substrates, training, Aerobic and endurance training, Fitness.*

### Introduction

Aerobic exercise (also known as cardio) is physical exercise of low to high intensity that depends primarily on the aerobic energy-generating process. "Aerobic" means "relating to, involving, or requiring free oxygen", and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism.

Aerobics is a form of physical exercise that combines rhythmic aerobic exercise with stretching and strength training routines with the goal of improving all elements of fitness (flexibility, muscular strength, and cardio-vascular fitness). It is usually performed to music and may be practiced in a group setting led by an instructor (fitness professional), although it can be done solo and without musical accompaniment. With the goal of preventing illness and promoting physical fitness, practitioners perform various routines comprising a number of different dance-like exercises. Formal aerobics classes are divided into different levels of intensity and complexity and will have five components: warm-up (5-10 minutes), cardiovascular conditioning (25-30 minutes), muscular strength and conditioning (10-15 minutes), cool-down (5-8 minutes) and stretching and flexibility (5-8 minutes). Aerobics classes may allow participants to select their level of participation according to their fitness level. Many gyms offer a variety of aerobic classes. Each class is designed for a certain level of experience and taught by a certified instructor with a specialty area related to their particular class.

The external effects are generally the components of physical fitness: flexibility, muscular, strength, and endurance, cardio-respiratory endurance and body composition. These areas will show improvement with regular participation and a nutritional diet. But what are the internal effects from aerobic exercise that are not visibly apparent?

1. **Heart-** During an aerobic workout, both the rate at which the heart beats (heart rate) and the amount of blood the heart pumps per beat (stroke volume) increases. Basically an improvement in the cardiac output occurs due to a

continuous exercise regimen. The cardiac output is the product of the heart rate times the stroke volume.

2. **Lungs-** During aerobic exercise the body demands more oxygen, so the lungs must deliver more oxygen to the working muscles through the blood. As the depth of breathing increases, exchange of oxygen and carbon dioxide between the lungs and the blood occurs more rapidly and efficiently. Regular exercise increases the lungs capacity to deliver oxygen.
3. **Metabolism-** Metabolism is the body's process of converting food into energy through numerous chemical reactions. During an aerobic workout; as the muscles' need for oxygen increases, more energy is expended, which increases the metabolic rate. Increased metabolic rate allows the body to use more energy, or calories, during aerobic activity, and even at rest.
4. **Blood Transport-** With aerobic training, blood volume and hemoglobin increase, facilitating the delivery of oxygen. The exercising muscles' ability to extract and use oxygen from the blood improves with regular aerobic exercise. Finally, the amount of breathing needed to perform aerobic exercise decreases, and blood transport increases. These benefits continue during rest and every day living.

#### **Benefits**

One of the major benefits of aerobic exercise is that body weight may decrease slowly; it will only decrease at a rapid pace if there is a calorie restriction, therefore reducing obesity rates.

#### **Health benefits**

Among the recognized health benefits of doing regular aerobic exercise are:

Strengthening the muscles involved in respiration, to facilitate the flow of air in and out of the lungs

- ❖ Strengthening and enlarging the heart muscle, to improve its pumping efficiency and reduce the resting heart rate, known as aerobic conditioning
- ❖ Improving circulation efficiency and reducing blood pressure
- ❖ Increasing the total number of red blood cells in the body, facilitating transport of oxygen
- ❖ Improving mental health, including reducing stress and lowering the incidence of depression, as well as increased cognitive capacity.
- ❖ Reducing the risk for diabetes (One meta-analysis has shown, from multiple conducted studies, that aerobic exercise does help lower Hb A1C levels for type 2 diabetics.)
- ❖ Reducing the risk of death due to cardiovascular problems
- ❖ High-impact aerobic activities (such as jogging or using a skipping rope) can:

#### **Body Performance Benefits**

In addition to the health benefits of aerobic exercise, there are numerous performance benefits:

- Increasing storage of energy molecules such as fats and carbohydrates within the muscles, allowing for increased endurance
- Neovascularization of the muscle sarcomeres to increase blood flow through the muscles
- Increasing speed at which aerobic metabolism is activated within muscles, allowing a greater portion of energy for intense exercise to be generated aerobically
- Improving the ability of muscles to use fats during exercise, preserving intramuscular glycogen

Enhancing the speed at which muscles recover from high intensity exercise

### **Neurobiological Effects**

Improvement in brain structural connections

- Increase in gray matter density
- New neuron growth
- Improvement in cognitive function (cognitive control and various forms of memory)
- Improvement or maintenance of mental health.

### **Aerobic Training**

Aerobic training strengthens the heart and lungs and improves muscle function. One goal of aerobic training is to enhance sports performance and to improve training response. The following is information from the American Academy of Pediatrics (AAP) about aerobic training exercises.

#### **What re aerobic training exercises?**

Aerobic training exercises are any activities that raise heart rate and make breathing somewhat harder. The activity you are doing must be constant and continuous. Examples of aerobic activities are

- Walking or hiking
- Jogging or running
- Biking
- Swimming
- Rowing
- In-line skating
- Cross-country skiing
- Exercising on a stair-climber or elliptical machine

Other activities, when done in a constant and continuous way, can be aerobic, such as tennis, racquetball, squash, and the martial arts. Weight training, however, is not aerobic because it is done in short bursts of a few minutes at a time.

#### **Moves and techniques**

Often moves are referred to as Reebok step moves in reference to one of the first makers of the plastic step commonly used in gyms.

The "basic" step involves raising one foot onto the step, then the other so that they are both on the step, then stepping the first foot back, followed by the second. A "right basic" would involve stepping right foot up, then the left, then returning to the floor alternating right then left.

Some instructors switch immediately between different moves, for example between a right basic and a left basic without any intervening moves, effectively "tapping" the foot without shifting weight; tap-free or smooth stepping alternates the feet without "taps"

#### **Common moves include:**

- Basic Step
- Corner knee (or corner kick)
- Repeater knee (aka Triple knee)
- T-Step
- Over-the-Top
- Lunges
- V-Step
- Straddle Down
- L-Step
- Split Step
- I-Step

**Choreography**

Many instructors will prepare a set of moves that will be executed together to form the choreography of the class. Usually, the choreography will be timed to 32 beats in a set, ideally switching legs so that the set can be repeated in a mirrored fashion. A set may consist of many different moves and the different moves may have different durations. For example, a basic step as described above takes 4 beats (for the 4 steps the person takes). Similarly, the "knee up" move also takes 4 beats. Another common move, the repeater knee, is an 8-beat move.

**Freestyle aerobics**

Freestyle aerobics is an aerobics style in which a group instructor choreographs several short dance combinations and teaches them to the class. This is usually achieved by teaching the class 1-2 movements at a time and repeating the movements until the class is able to join the whole choreography together. Aerobic music is used throughout the class. This is sometimes followed by a strength section which uses body weight exercises to strengthen muscles and a stretch routine to cool down and improve flexibility.

- a) Classes are usually 30–60 minutes in length and may include the use of equipment such as a barbell, aerobic step, or small weights.
- b) In freestyle aerobics, the instructor choreographs the routine and adjusts it to the needs and wants of her/his class.
- c) There is often no difference between base movements in freestyle and pre-choreographed programs.
- d) It is practiced to improve aerobic fitness, flexibility and strength.

**Aerobic gymnastics**

Aerobic gymnastics, also known as sport aerobics and competitive aerobics, may combine complicated choreography, rhythmic and acrobatic gymnastics with elements of aerobics. Performance is divided into categories by age, sex and groups (individual, mixed pairs and trios) and are judged on the following elements: dynamic and static strength, jumps and leaps, kicks, balance and flexibility. Ten exercises are mandatory: four consecutive high leg kicks, patterns.

A maximum of ten elements from following families are allowed: push-ups, supports and balances, kicks and splits, jumps and leaps. Elements of tumbling such as handsprings, handstands, back flips, and aerial somersaults are prohibited. Scoring is by judging of artistic quality, creativity, execution, and difficulty of routines. Sport aerobics has state, national, and international competitions, but is not an Olympic sport.

**What qualifies as aerobic exercise**

Aerobic exercise comprises innumerable forms. In general, it is performed at a moderate level of intensity over a relatively long period of time. Some sports are thus inherently "aerobic", while other aerobic exercises, such as fartlek training or aerobic dance classes, are designed specifically to improve aerobic capacity and fitness. It is most common for aerobic exercises to involve the leg muscles, primarily or exclusively.

**Some exceptions**

Rowing to distances of 2,000 meters or more is an aerobic sport that exercises several major muscle groups, including those of the legs, abdominals, chest, and arms.

**Aerobic versus anaerobic exercise**

What is the difference between aerobic and anaerobic exercises?

Aerobic and anaerobic are terms that define how your body produces energy.

Aerobic means "with oxygen." When you participate in a continuous activity that increases your heart rate, your cells use oxygen to produce energy. An example of aerobic exercise is walking.

Anaerobic means "without oxygen." When you engage in a quick, high-intensity activity, your cells aren't using oxygen to produce energy. An example of an anaerobic exercise is lifting weights.

### Activities Similar to Aerobic Exercise

Higher intensity exercise, such as High-intensity interval training (HIIT), increases the resting metabolic rate (RMR) in the 24 hours following high intensity exercise, ultimately burning more calories than lower intensity exercise; low intensity exercise burns more calories during the exercise, due to the increased duration, but fewer afterwards.

### Success in aerobic exercise businesses

Aerobic exercise has long been a popular approach to achieving weight loss and physical fitness, often taking a commercial form.

- In the 1970s, Judi Sheppard Missett helped create the market for commercial aerobics with her Jazzercise program
- In the 1980s, Richard Simmons hosted an aerobic exercise show on television, and also released a series of exercise videos
- In the 1990s, Billy Blanks's Tae Bo helped popularize cardio-boxing workouts that incorporated martial arts movements

### Types of aerobic exercise

Indoor	Outdoor	Indoor or outdoor
Elliptical trainer	Walking	Swimming
Indoor rower	Cycling	Kickboxing
Stationary bicycle	Running	Skipping rope or jump rope
Treadmill	Cross-country skiing	Circuit training
	Cross-country running	Jumping jacks
	Nordic walking	Water aerobics
	Inline skating	Jogging
	Skateboarding	
	Rowing	

### Aerobic capacity related to

- Aerobic activities use the larger muscle groups over an extended time period where the energy is supplied by the oxygen utilizing process. Sample activities include walking, jogging, swimming, and cycling.
- Aerobic capacity is the highest amount of oxygen consumed during maximal exercise in activities that use the large muscle groups in the legs or arms and legs combined. Aerobic capacity, aerobic power, functional capacity, functional aerobic capacity, maximal functional capacity, cardiorespiratory fitness, cardiovascular fitness, maximal oxygen intake, and maximal oxygen uptake are terms that are often used interchangeably.
- Aerobic conditioning is regular physical training in aerobic activities over an extended period of time.
- Aerobic fitness is the capacity to exercise in aerobic activities for a prolonged period where the amount of activity depends on aerobic capacity and cardiorespiratory endurance.
- Agility is a skill-related component of physical fitness that relates to the ability to rapidly change the position of the entire body in space with speed and accuracy.
- Anaerobic exercise is intense activity requiring energy production without using oxygen. Anaerobic means in the absence of oxygen.

### Conclusion

Aerobic exercise as the ability to use the maximum amount of oxygen during exhaustive work. Some of the major health benefits of aerobic exercise, such as gaining more efficient lungs by maximizing breathing capacity, thereby increasing ability to ventilate more air in a shorter period of time. As breathing capacity increases, one is able to extract oxygen more quickly into the blood stream, increasing elimination of carbon dioxide. With aerobic exercise the heart becomes more efficient at functioning, and blood volume,

hemoglobin and red blood cells increase, enhancing the ability of the body to transport oxygen from the lungs into the blood and muscles. Metabolism will change and enable consumption of more calories without putting on weight. Aerobic exercise can delay osteoporosis, as there is an increase in muscle mass, a loss of fat and an increase in bone density. With these variables increasing, there is a decrease in likelihood of diabetes as muscles use sugars better than fat.

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# 19

## A BIRD VIEW OF NATIONAL EDUCATION POLICY-2020 IMPACT ON PHYSICAL EDUCATION AND SPORTS SCIENCE

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### **ABSTRACT**

*Thus NEP 2020 accords top most importance to physical education, sports, yoga, health and wellness for implementing the mandate of NEP 2020, Government of India and government of Karnataka has started to implement it into educational curriculum. In keeping with the spirit of federalism and unitary nature of the country, other states of the country and Unitary Territories' should emulate the implementing example of Government of India and government of Karnataka and earnestly, honestly and seriously take needed steps to include the physical education, sports, yoga, health and wellness in the curriculum framework in all educational institutions so that physically fit, mentally strong and socially well being meaning personalities will be developed to fit in the 21<sup>st</sup> century world and face the challenges of the today's world of competition.*

*The educational institutions should take the initiative and perform their role in implementing the NEP 2020. So that India is in a position to cultivate all round developed, physically fit and required human personalities to man the requirements of the 21<sup>st</sup> century India. For this national task our educational institutions should perform lead role through strict implementation of the NEP 2020 through adoption of national framework of school and college curriculum more specifically as it relates to inclusion of Physical Education and Sports Science classes in the educational institutions throughout the country so that India can reach new and required highest of human, social and economic development to remain relevant in the 21<sup>st</sup> century world and lead the world in the modern time. In brief it can be said that inclusive physical education and the due as well as needed emphasis is given by NEP 2020 in regard to physical education, sports, yoga, health and wellness in order to transform India into a physically fit and mentally sound and socially wellbeing personalities who can perform their roles so that the objective of developed India will become a reality but for this all of us and the educational institutions should work hard and with determination.*

**Keywords:** *national education policy, physical education, sports science.etc.,*

### **INTRODUCTION:**

The importance and value of Physical Education and Sports Science in the education system has long been recognized and today's education is unthinkable without Physical Education and Sports Science being a part and parcel of contemporary education. In present day education much emphasis is given to the Physical Education and Sports Science the belief has come to influence the educationists, policy planners and the regulating authority the government that no worthwhile education for the young generation is possible without Physical Education and Sports Science. Physical Education and Sports

Science is the integral part of inclusive education and thus sports, yoga, health and wellness need to be given required priority and place in modern education so that it leads to the growth of healthy individual personalities which can fit in the democracy of the country and contribute to its development.

Thus Physical Education and Sports Science should be made inalienable and inseparable part of education and it needs to be made a part of Kinder Garden to Higher Education curriculum because body and mind are inseparable. Adequate emphasis needs to be given to the Physical Education and Sports Science in the education system of the country. All students are having one or another unique ability, should get the recommended 60 minutes or more of daily physical activities to grow into physically fit mentally strong personalities. Schools can help all students to meet this recommendation by providing equal opportunities for students with disabilities as well. Creating an inclusive culture for physical education, physical activity, yoga, games and sports help every student learn to lead a healthy, active and purposeful life style. The inclusion in education means that, "All children regardless of ability or disability, have the right to be respected and appreciated as the valuable members of school community, fully participate in all school activities and interact with peers of all ability levels with opportunities to develop friendship." Inclusive physical education and physical activity includes.

1. Include students with disabilities in regular physical education classes. Specifically, teaching strategies, equipment, environments and assessments have been adopted to meet the needs of all students.
2. Supports the students with disabilities who want to participate in other physical activities before, during and after class.
3. Encourage the students with disabilities to have same roles and experiences as their peers who do not have a disability during physical education and other physical activities. "Education is the manifestation of the perfection already existing in man." Said Swami Vivekananda.

The primary objective of education is overall personality development. Complimenting to this objective, the paradigms of Physical Education and Sports Science is integrated under the National Education Policy -NEP 2020. Physical Education and Sports Science professionals will contribute in bringing Health and wellness at every aspect of one's personality. Thus developing and proposing the syllabus framework for physical education, sports and yoga was an interesting assignment for the committee. We had to keep in mind the broad guidelines given by UGC about making the citizens of 21<sup>st</sup> century equipped with critical thinking, problem solving, Analytical Reasoning, Cognitive skills and self-directed learning etc. The committee had several meetings to develop the curriculum framework and we have come out with a broad outline for the colleges and universities to take up the framework for physical education, sports and yoga. The broad framework is to make physical education, sports and yoga accessible and available to masses by creation of professions in physical education, sports, yoga and health and wellness through Higher Education Institutions. This will help every citizen of India to be healthy, fit and stay well. India is growing rapidly as a global super power. To face the challenges of the century and to keep up with the pace of the world, maintaining health is of paramount importance. Giving thrust to healthy society, Physical Education and Sports Science is of great significance in today's world.

The Government of India insists on physical fitness, mental health, society well-being and overall development of personality of for every citizen. Thus government has launched Fit India Movement, Khelo India, Target Olympic Podium Scheme and National Sports Day, International Day of Yoga etc. These initiatives have given impetus and awareness among public, professionals, and academicians. However, creating efficient and skilled human resource in the field of Physical Education and Sports Science is identified as

the need of hour. Thus the Government of India and the government of Karnataka have included Physical Education and Sports Science a key area under NEP 2020.

**PROCEDURE:**

The NEP 2020 was released by the Ministry of HRD on July 29, 2020. This aims to promote holistic education, multilingualism, skill development, and flexibility. This also includes a 5+3+3+4 structure for schooling, which corresponds to ages 3–8, 8–11, 11–14, and 14–18.

The new education policy, NEP 2020 talks about major transformational reforms in the Indian academic sector which are appreciated by many. Along with appreciation, there is also criticism which focuses on the drawbacks of this new education policy. In this article, I will explore both the advantages and disadvantages of NEP for Physical Education fraternity, providing you with a comprehensive overview of its impact.

NEP 2020 envisages sports as a part of the curriculum and lays emphasis on sports-integrated learning as well as adopting fitness as a lifelong attitude. National Credit Framework is being rolled out with due weightage to sports and other co-curricular activities. 28 Aug 2023

The Indian higher education system is now being transformed by the National Education Policy 2020. This policy places a strong emphasis on encouraging interdisciplinary study, offering novel subjects, and giving students access to new opportunities and flexible course options.

**FACTS AND FINDINGS:**

The National Education Policy (NEP) 2020 includes sports as a part of the curriculum and emphasizes sports-integrated learning. It also encourages universities and colleges to provide adequate physical education and sports science facilities.

The NEP 2020 views sports as a way to develop skills like collaboration, self-initiative, self-direction, self-discipline, teamwork, responsibility, and citizenship. It also encourages secondary students to participate in sports to develop a activity oriented fitness and improve their skills.

According to a study, the overall attendance increased by 5% after the implementation of a sports curriculum.

**MENTIONED BELOW FEW BENEFITS OF PHYSICAL EDUCATION AND SPORTS SCIENCE:**

**For Students:**

- ❖ **Personal growth:** Sports can impact students' personal growth, co-operation, co-ordination teamwork, and resilience.
- ❖ **Self-esteem:** Playing sports and games can help students improve their self-esteem, physical culture, social skills, and confidence.
- ❖ **Time management:** Sports can also teach students about punctuality, time management and discipline.
- ❖ **Stress reduction:** Sports can help students reduce stress, anxiety and depression.
- ❖ **Anatomical:** strengthen the muscle, heart, lungs, bone, nerves, blood vessels and body shape
- ❖ **Physiological:** Induces the cardio vascular endurance, vital capacity, muscular endurance, hormone secretion and body posture.
- ❖ **Psychological:** Improves mood, mind tranquility, self-adjustment and reduces psycho-somatic disorder

**For Teachers:**

- Professional Development Opportunities
- Enhanced Teaching Practices
- Integration of Technology
- Recognition of Leadership and Mentorship

- Collaborative Learning Communities
- Empowerment as Facilitators

**Pros:**

- Enhanced physical education budget
- Multidisciplinary learning
- No rigid separation between arts, commerce and science curriculum
- Internships included from class VI
- Increased investment in education
- Induces the scope and wide range of physical education and sports science
- Physical education and sports science reaches the each and every student
- Physical education and sports science theory and practical shall experience all the students

**Cons:**

- Implementation challenges
- Promotes privatization of education
- Creates a language barrier
- Standardizes the education system
- Lack of clarity
- May put students and educators in rural areas at a disadvantage
- May lead to an excessive focus on grades and performance
- Needs major infrastructural changes in schools nationwide
- Needs adequate funding and resources for proper implementation

**CONCLUSION:**

While the New Education Policy 2020 aims to bring about positive transformations in the Indian education system, it is essential to critically evaluate its pros and cons. By critically examining the benefits not only physical education but also every subjects, stakeholders can work towards implementing the new education policy effectively, ensuring an education system that fosters holistic development, inclusivity, fitness, skills, health and equal opportunities for all.

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# 20

## NATIONAL EDUCATION POLICY 2020 - A WAY FORWARD FOR SKILL DEVELOPMENT AND YOUTH EMPOWERMENT

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### ABSTRACT

*The National Education Policy (NEP) 2020 of India marks a significant shift in the country's educational framework, aiming to revolutionize skill development and empower its burgeoning youth population. This paper explores the NEP 2020 as a catalyst for transformative change in the Indian educational landscape, with a specific focus on its implications for skill development and youth empowerment. Through a comprehensive analysis of the policy's key features, such as the emphasis on vocational training, integration of technology in education, and a multidisciplinary approach, the paper evaluates how these elements contribute to equipping the youth with relevant skills and competencies for the 21st century. Furthermore, it discusses the challenges in policy implementation, including resource allocation, teacher training, and infrastructural development. By juxtaposing NEP 2020 with global educational trends and similar reforms in other countries, the paper highlights its potential role as a model for developing nations. The findings suggest that while NEP 2020 paves the way for significant advancements in skill development and youth empowerment, its success largely hinges on effective implementation and addressing the anticipated challenges. This paper contributes to the understanding of educational reforms in the context of global educational dynamics and underlines the critical role of policy in shaping the future of youth and skill development in India.*

### Introduction

The New Education Policy (NEP) 2020, introduced in India, marked a significant overhaul in the country's education system since the previous policy which was established in 1986. This policy aims to transform India's education system to meet the needs of the 21st century. Here are some key highlights and a review of its main components:

**Early Childhood Care and Education (ECCE):** The NEP 2020 emphasizes the importance of early childhood education, recommending the inclusion of children aged 3-6 years in the school curriculum. This is a positive move as early years are crucial for the development of mental and cognitive abilities.

1. **New School Structure:** The policy introduces a new 5+3+3+4 structure (foundational, preparatory, middle, and secondary stages) replacing the existing 10+2 system. This approach aligns more closely with international education standards and emphasizes continuity and a comprehensive educational experience.
2. **Flexibility in Subject Selection:** One of the progressive aspects of NEP 2020 is the flexibility it offers in choosing subjects, breaking the rigid boundaries of 'arts', 'commerce', and 'science' streams in secondary education. This could foster a more holistic education and nurture a wider range of talents and interests.

3. **Vocational Education:** The integration of vocational education from Grade 6 is a significant step. It can help in skill development from a young age and reduce the stigma associated with vocational studies.
4. **Higher Education Reforms:** The NEP proposes several reforms in higher education including the introduction of a four-year multidisciplinary undergraduate program, multiple entry and exit options, and the discontinuation of the M.Phil. program. These reforms aim to make higher education more flexible and broad-based.
5. **Focus on Technology:** Emphasizing technology in education, both as a tool for teaching and learning, and as a subject itself, reflects a forward-thinking approach. This is crucial in preparing students for a digital world.
6. **Language Policy:** The policy's recommendation for mother-tongue/local language instruction at the primary level is based on research showing better learning in a familiar language. However, this has raised concerns about practical implementation and consistency across diverse linguistic regions.
7. **Teacher Training and Development:** The NEP focuses on the critical role of teachers and suggests robust training, recruitment, and career pathing. Effective implementation here will be key to the success of the policy.
8. **Assessment Reforms:** The shift from rote learning to a more competency-based system is a much-needed change. It focuses on critical thinking and conceptual clarity.
9. **Equity and Inclusion:** The policy pays special attention to bringing back dropouts into the mainstream and addressing the educational needs of underrepresented groups. The success of these initiatives will depend heavily on effective implementation and monitoring.

**By reviewing of this article , we could find that**

Article Title: Assessing the Impact of NEP 2020 on Youth Empowerment in India  
Authors: Dr. Anika Patel and Dr. Rajiv Desai  
Journal: Indian Journal of Educational Policy  
Volume and Issue: Vol. 29, No. 1 , Year: 2023

*Overview* - Patel and Desai's article investigates the influence of India's National Education Policy (NEP) 2020 on the empowerment of youth. The paper aims to evaluate how the policy reforms align with the objectives of enhancing critical thinking, innovation, and skill development among young Indians.

*Methodology* - The authors employed a mixed-methods approach, combining a nationwide survey of students and educators with in-depth case studies in select educational institutions. This approach is commendable for its comprehensiveness. However, the sample selection for the case studies appears to be biased towards urban, well-resourced schools, potentially skewing the findings.

*Key Findings* - The article reports that NEP 2020 has initiated significant positive changes in the education system, particularly in fostering skill-based learning and multidisciplinary education. It also highlights the policy's emphasis on local languages and technology integration as key factors in youth empowerment. The data interpretation is robust, but the study would benefit from a clearer delineation of how these changes translate to practical empowerment outcomes.

*Analysis and Interpretation* - Patel and Desai effectively dissect the components of NEP 2020, linking them to theoretical frameworks of empowerment. Their analysis adeptly connects policy intentions to potential educational outcomes. However, the analysis is somewhat limited in addressing the challenges of implementing these policies, especially in rural and underfunded schools.

*Contribution to the Field* - This article is a valuable contribution to the literature on education policy and youth empowerment in India. It offers an early assessment of a significant educational reform and its potential impact on the youth, providing useful insights for policymakers and educators.

Advice that includes - Future research directions could include:

1. Expanding the study to include a more diverse range of educational settings, especially rural and low-income urban schools.
2. Longitudinal studies to track the impact of NEP 2020 over time.
3. A deeper examination of the challenges and barriers in implementing NEP 2020 across different regions and communities.

#### **Strengths of NEP 2020**

**Holistic Approach:** NEP's shift towards a more holistic and flexible approach in both school and higher education is commendable. It encourages critical thinking and creativity, moving away from rote learning.

**Early Childhood Education:** Emphasis on early childhood care and education (ECCE) is based on extensive research indicating the crucial role of early years in cognitive development.

**Multidisciplinary Focus:** The introduction of a multidisciplinary approach in higher education, with flexibility in subject choices, can lead to a more rounded development of students.

**Vocational Training:** Integrating vocational education from Grade 6 is progressive, addressing the skill gap and enhancing employability.

**Teacher Training:** Focus on robust teacher training and professional development is crucial for improving the overall quality of education.

**Technology Integration:** Acknowledging the role of technology in education caters to contemporary needs and future readiness.

**Inclusivity and Accessibility:** The policy's emphasis on inclusivity and efforts to bring back dropouts and support education for all, including specially-abled students, is a positive step.

The findings indicate that NEP 2020, with its emphasis on flexibility, multidisciplinary approaches, and skill-based education, has the potential to significantly empower the youth.

#### **Challenges and Considerations:**

- The biggest challenge lies in the implementation of these policies at the ground level. Adequate training of educators, infrastructural support, and financial allocation are crucial.
- Balancing the language policy without disadvantaging students in global competitiveness, especially in English proficiency, is a concern.
- The shift in assessment methods will require a significant overhaul of the existing examination systems and educator mindsets.
- Ensuring equitable access to technology and digital resources is crucial, especially considering the digital divide in various parts of India.

#### **Areas of Concern and Recommendations**

**Implementation Challenges:** The success of NEP 2020 is heavily dependent on its implementation. Effective execution at the ground level, especially in rural and underprivileged areas, remains a challenge.

*Recommendation:* Develop a clear, phased, and well-funded implementation plan, with periodic reviews and adjustments.

**Language Policy:** While the focus on mother-tongue/local language instruction is based on pedagogical research, its implementation across India's diverse linguistic landscape can be complex and may inadvertently affect English proficiency.

- *Recommendation:* Offer flexibility and support for multilingual education, ensuring no student is disadvantaged.

**Digital Divide:** The policy's emphasis on digital learning might exacerbate the digital divide, affecting students in areas with limited digital infrastructure.

- *Recommendation:* Invest in digital infrastructure and provide alternative means of education where digital access is limited.

**Teacher Training:** While the policy emphasizes teacher training, the actual process of training millions of teachers is a colossal task.

- *Recommendation:* Establish robust training programs, possibly leveraging online platforms for scalability and consistency.

**Assessment Reforms:** Transitioning to a more application-based assessment system is ambitious and requires a fundamental shift in examination structures.

- *Recommendation:* Gradual implementation of assessment reforms with comprehensive training for educators in new assessment methods.

**Equity in Higher Education:** While the policy aims to increase the Gross Enrolment Ratio in higher education, maintaining quality education and ensuring equity can be challenging.

- *Recommendation:* Focus on quality control mechanisms and policies that promote equity in access to higher education.

**Financial Allocation:** Significant financial investment is required to realize the ambitions of the NEP 2020.

- *Recommendation:* Ensure adequate budget allocation and explore public-private partnerships where appropriate.

### Conclusion

In conclusion, the NEP 2020 is an ambitious and comprehensive attempt to revamp the Indian education system. It holds the potential to make education more holistic, flexible, and aligned with global standards. However, its success largely hinges on effective and inclusive implementation strategies, continuous monitoring, and adaptability to feedback and changing educational needs. The NEP 2020 presents a visionary approach towards reforming India's educational landscape. Its success, however, hinges on addressing the challenges of implementation, equity, language policy, digital divide, and financial investment. With thoughtful execution and continuous monitoring, the policy has the potential to significantly transform and enhance the education system in India.

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- *Journal Article - Assessing the Impact of NEP 2020 on Youth Empowerment in India*  
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# 21

## COMPARATIVE STUDY ON PERSONALITY TRAITS COMPONENTS BETWEEN SPORTS AND NON-SPORTS CHILDREN

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### ABSTRACT

*Personality traits conditions are very important in human life because it has a reflection of the personality of an individual. Personality is being good in healthy, Physically, and mentally, but it also includes all aspects of human life. The aim of the study is to find out whether there is any significant difference or not in the personality trait components between sports children and non-sports children in Karnataka. 800 children (400 sports children and 400 non-sports children) served as the subjects of the study. To collect the data of five Personality traits (Openness, Conscientiousness, Neuroticism, Agreeableness, and Extraversion) researcher were used Five personality trait Inventory questionnaire constructed by Prof. K S Mishra. This test has 50 statements. Each statements have five responses namely "Nearly, Always, Often, many times, Rarely, nearly never A score of 5,4,3,2,1 were allotted respectively". The T-test for independent samples was used as a statistical tool to determine the significance difference between the groups. Critical t-value  $\pm 1.962$  for 798 degrees of freedom and 0.05 level of significance was fixed for study. The results (t-value < critical t-value) Indicates that there is no significance differences of Conscientiousness, Neuroticism, openness among sports children and non-sports children. The cause may be the fact that schools and colleges offer holistic development programmes to students, including yoga sessions, Sports classes, vacation classes, extra classes, and online platforms. Through apps for learning, tools to increase cognitive function, online courses, and courses on personality development offered through the aforementioned venues, parents show more care for their children's education, and kids who play sports and those who don't are both utilising and enhancing their personality traits.*

**Keywords:** *Conscientiousness, Neuroticism, Openness, Child, Cognitive*

### Introduction

Personality traits conditions are very important in human life because it has a reflection of the personality of an individual. Personality is being good in healthy, Physically, and mentally, but it also includes all aspects of human life. This personality is a development process where an individual improves his personality domains by practicing good methods and getting involved in training his throughout life. Personality traits are

mirrors of human beings. Openness, Extraversion, Agreeableness, Conscientiousness, and Neuroticism are the Big Five personality qualities. All of these characteristics are assessed on a scale that spans two extremes. In truth, many people lie somewhere in between these two extremes. Many psychologists believe that these considerations are widely acknowledged and have their own hereditary underpinnings, based on several studies. They have an impact on our social environment. Adult differences in uniqueness were studied more than differences in childhood and teenage years. However, several researches are currently being performed to determine the origins of the disease and how it spread to children. Neuroticism points to an individual's tendency to experience negative feelings. Neuroticism is the tendency to journey negative emotions, such as anger, anxiety, or depression. Conscientiousness indicates use of moral principles by an individual. Conscientiousness is a tendency to show self-discipline, act dutifully, and strive for fulfillment against measures or outside expectations. Openness is the attribute of being receptive to new ideas, perspectives, or arguments. Openness is an established grasp for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experience.

#### Objective

Finding the differences of conscientiousness, Openness, Neuroticism between sports children and non-sports children.

#### Methodology

Five personality trait Inventory questionnaire constructed by Prof. K S Mishra is used as tool to collect data. This test has 50 statements. Each statements have five responses namely "Nearly, Always, Often, many times, Rarely, nearly never A score of 5,4,3,2,1 were allotted respectively".. The sample of the - Study was selected randomly. Total 800 samples collected in research. In that 400 were from sports remaining 400 were from non-sports children. Subject age category was between 14 to 18 years. Sports children mean one who participated in active, sports competitive events more than taluk level sports in any games. Non-sports children mean one who not so actively & participate in physical activity and Competitive sports.

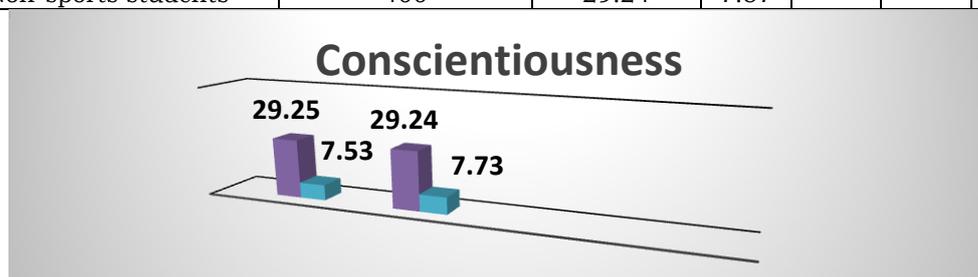
#### Statistical Technique

IBM SPSS 22 software was used for data analysis. To find out significant difference between groups researcher used independent sample t-test. Critical t-value is  $\pm 1.962$  for 798 degrees of freedom. Level of significance was kept 0.05 for the test.

#### Statistical Analysis and Discussion

**Table:1 Descriptive And T-Test Table for Conscientiousness of sports students and non-sports students**

Particulars	Samples	Mean	SD	T	Df	Sig
Sports students	400	29.25	7.53	0.01	798	0.98
Non-sports students	400	29.24	7.57			



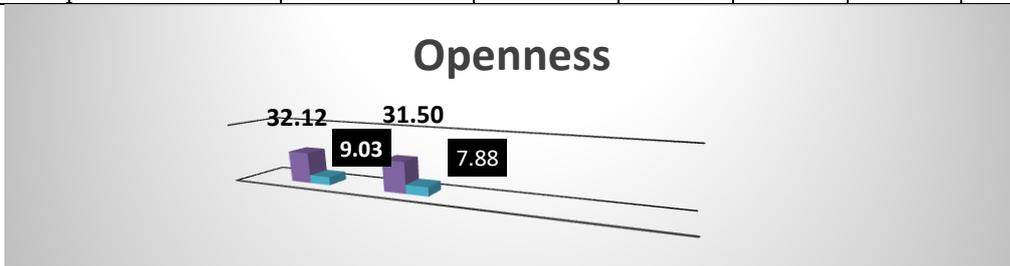
\* $\leq 0.05$

The data in the table no.1 comparing conscientiousness of sports students & non-sports students. When we observe mean and SD of both the groups sports students (Mean 29.25, Sd 7.53) is more than the non-sports students (Mean 29.24, Sd 7.57). To find the

whether mean differences among two groups are different at the significant level then data is subjected to independent sample T-Test. Independent Sample T-Test result reveals that calculated t-value is 1.03 so it is less than the critical t-value  $\pm 1.962$  for 798 degrees of freedom and 0.05 level of significance. So, Statistics results indicates that there is no significance different exist between sports students and non-sports students when their conscientiousness is compared. It is concluded that there is no significant differences in conscientiousness between sports students and non-sports students.

**Table:2 Descriptive And T-Test Table for Openness of sports students and non-sports students.**

Particulars	Samples	Mean	SD	T	Df	Sig
Sports students	400	32.12	9.03	1.03	798	0.29
Non-sports students	400	31.50	7.88			

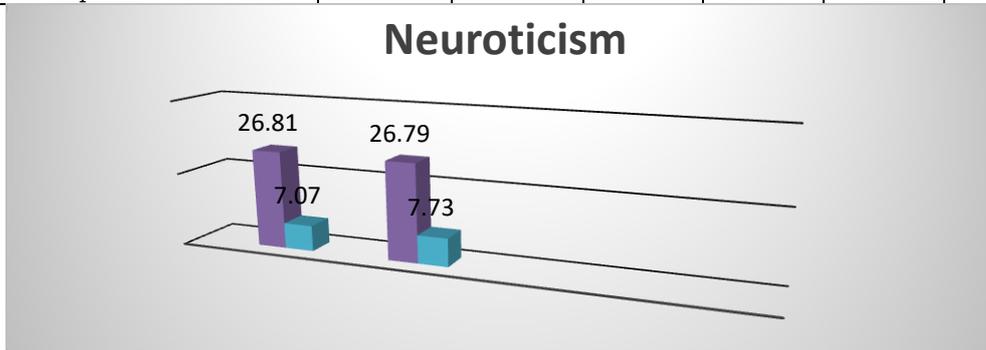


\* $\leq 0.05$

The data in the table no.2 comparing Openness of sports students & non-sports students. When we observe mean and SD of both the groups sports students (Mean 32.12, Sd 9.03) is more than the non-sports students (Mean 31.50, Sd 7.88 ). To find the whether mean differences among two groups are different at the significant level then data is subjected to independent sample T-Test. Independent Sample T-Test result reveals that calculated t-value is 1.03 so it is less than the critical t-value  $\pm 1.962$  for 798 degrees of freedom and 0.05 level of significance. So, Statistics results indicates that there is no significance different exist between sports students and non-sports students when their openness is compared. It is concluded that there is no significant differences in openness between sports students and non-sports students.

**Table:3 Descriptive And T-Test table for neuroticism of sports students and non-sports students.**

Particulars	Samples	Mean	SD	T	Df	Sig
Sports students	400	26.81	7.07	0.04	798	0.96
Non-sports students	400	26.79	7.73			



\* $\leq 0.05$

The data in the table no.3 comparing neuroticism of sports students & non-sports students. When we observe mean and SD of both the groups sports students (Mean 26.81, Sd 7.07) is more than the non-sports students (Mean 26.79, Sd 7.73). To find the whether mean differences among two groups are different at the significant level then data is subjected to independent sample T-Test. Independent Sample T-Test result reveals that calculated t-value is 0.04 so it is less than the critical t-value  $\pm 1.962$  for 798 degrees of freedom and 0.05 level of significance. So, Statistics results indicates that there is no significance different exist between sports students and non-sports students when their neuroticism is compared. It is concluded that there is no significant differences in neuroticism between sports students and non-sports students.

#### **Conclusion**

According to the findings, there are no significant differences of conscientiousness, Openness, Neuroticism between sports children and non-sports children. The cause may be the fact that schools and colleges offer holistic development programs to students, including yoga sessions, vacation classes, extra classes, and online platforms. Through apps for learning, tools to increase cognitive function, online courses, and courses on personality development offered through the aforementioned venues, parents show more care for their children's education, and sports children and non-sports children are both utilizing and enhancing their personality traits.

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# 22

## INFLUENCE OF AEROBIC CIRCUIT TRAINING WITH DIFFERENT COMBINATIONS OF YOGIC PRACTICES ON VITAL CAPACITY AMONG SEDENTARY MEN

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### **Abstract**

*The purpose of the study was to find out the influences of aerobic circuit training with different combinations of yogic practices on vital capacity among sedentary men. To achieve the purpose of the present study, sixty sedentary men were selected as subjects at random from Chitradurga District, Karnataka, India and their ages ranged from 20 to 25 years. The subjects (N=60) were randomly assigned to three equal groups of twenty subjects each. Experimental group-I was exposed to Aerobic circuit training with yogic combinations I (ACTYCI), Experimental group-II was exposed to Aerobic circuit training with yogic combinations II (ACTYCII), and control group (CG) was not exposed to any experimental training other than their regular daily activities. The duration of experimental period was 12 weeks. Analysis of Covariance and Scheffe's post hoc test was used. The aerobic circuit training with yogic combinations I and II had shown significant improvement on vital capacity of sedentary men.*

**Keywords:** Aerobic Circuit Training, Yogic Practices, Vital Capacity, Sedentary Men.

### **Introduction**

Aerobic fitness helps to promote the cardio- respiratory system from disease and it promotes physical, mental, emotional and spiritual development. Aerobic program can be started at any age and the intensity of the program can also be suited to meet the larger needs of the individual. Circuit training is a useful technique that requires some preliminary planning, but it also requires coordination. It inspires athletes because it makes conditioning enjoyable and difficult through competition with teammates. A continuous series of exercises known as "circuit training" aims to increase as many aspects of physical fitness as possible, especially endurance. Six to twelve stations are typically online. A way of life, yoga. It is primarily focused on preserving a state of composure at all costs. All schools of yoga philosophy place great emphasis on maintaining mental peace because, as the proverb goes, only when the water is still can you see through it (Iyengar, 1986).

Aerobics is a form of physical activity that combines rhythmic aerobic exercise with stretching and strength training routines with the goal of improving all elements of fitness, flexibility, muscular strength, and cardiovascular fitness. It is usually performed to music and may be practiced in a group although it can be done solo and without musical equipment. With the goal of preventing illness and promoting physical fitness practitioners perform various routines comprising a number of different dance like exercise. Aerobics is a vigorous physical activity that can provide an inexpensive and practical workout for most people. Aerobic fitness helps to promote the cardio- respiratory system from disease and it

promotes physical, mental, emotional and spiritual development. Aerobic program can be started at any age and the intensity of the program can also be suited to meet the larger needs of the individual.

Circuit training is an efficient and challenging form of conditioning. It works well for developing strength, endurance (both aerobic and anaerobic), flexibility and coordination. Its versatility has made it popular with the general Public right through to elite athletes. For sports men and women, it can be used during the closed season and early pre-season to help develop a solid base of fitness and prepare the body for more stressful subsequent training. Circuit training is an effective organizational form of doing physical exercises for improving all physical fitness components. Before and after training, the initial and final tests were conducted for the variables such as speed, agility, power, co-ordination, static balance and dynamic balance for the experimental and control groups.

Circuit training is a practical method entailing some preliminary planning, but beyond that, it needs co-ordination. Athletes find it motivating since it makes conditioning fun and challenging through competition against team mates. Circuit training is a continuous series of exercises attempting to improve as many components of physical fitness as possible especially endurance. Generally, six to twelve stations are up. Selection and sequence of the activities within a lap of circuit is made with consideration given to the continuous nature of the performance. Circuit training is also a convenient way to exercise. It maximizes the total exercise volume (number of sets, repetitions, and amount of weight) completed in a period of time. Exercises are completed in a row, and therefore, the time spent exercising is condensed. Separate cardiovascular training is not necessary. All body parts are trained in one session, and therefore, exercisers do not need to work out every day. Circuit training is a type of exercise program where one does a series of timed exercises at a fairly rapid pace, with a brief period of rest in between each exercise.

Aerobics is a progressive physical conditioning programme that stimulates cardio respiratory activity for a time period sufficiently long to produce beneficial changes in the body. As the intensity and duration of work increases the demand for fuel in the working muscle also increases to meet the additional demand for energy.

#### **Methodology**

The purpose of the study was to find out the influences of aerobic circuit training with different combinations of yogic practices on vital capacity among sedentary men. To achieve the purpose of the present study, sixty sedentary men were selected as subjects at random from Chitradurga District, Karnataka, India and their ages ranged from 20 to 25 years. The subjects (N=60) were randomly assigned to three equal groups of twenty subjects each. Experimental group-I was exposed to Aerobic circuit training with yogic combinations I (ACTYCI), Experimental group-II was exposed to Aerobic circuit training with yogic combinations II (ACTYCII), and The International journal of analytical and experimental modal analysis Volume XIV, Issue VI, June/2022 ISSN NO: 0886-9367 control group (CG) was not exposed to any experimental training other than their regular daily activities. The duration of experimental period was 12 weeks. The pre- test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance of the mean differences, whenever the 'F' ratio for adjusted test was found to be significant; Scheffe's post hoc test was used. In all cases, 0.05 level of confidence was fixed to test hypotheses. In all cases, 0.05 level of confidence was fixed to test hypotheses.

**Results**

**TABLE I : CALCULATION OF ANCOVA ONVITAL CAPACITY**

	ACTYCI	ACTYCII	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
<b>Initial means</b>	3.28	3.20	3.18	<b>BG</b>	0.093	2	0.047	0.568
				<b>WG</b>	3.450	42	0.082	
<b>Final means</b>	3.54	3.48	3.24	<b>BG</b>	0.731	2	0.366	3.787*
				<b>WG</b>	4.056	42	0.097	
<b>Adjusted Final means</b>	3.54	3.48	3.24	<b>BG</b>	0.720	2	0.360	3.638*
				<b>WG</b>	4.056	41	0.099	

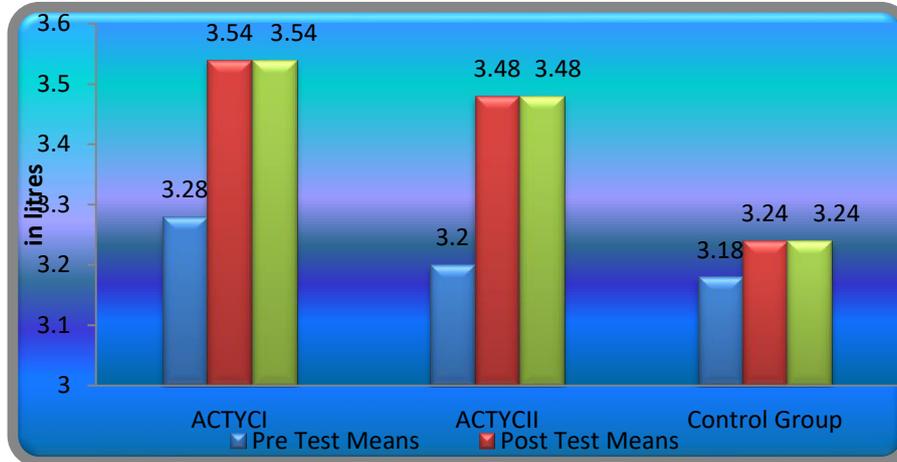
An assessment of table - I point out that the pre test means of Aerobic circuit training with yogic combinations I, Aerobic circuit training with yogic combinations II and control groups were 3.28, 3.20 and 3.18 respectively. The attained F-ratio for the pre-test was 0.568 and the table F-ratio was 3.22. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 42. This established that there were no significant difference between the experimental and control groups representing that the course of action of randomization of the groups was ideal while conveying the subjects to groups. The post-test means of the Aerobic circuit training with yogic combinations I, Aerobic circuit training with yogic combinations II and control groups were 3.54, 3.48 and 3.24 respectively.

The attained F-ratio for the post-test was 3.787 and the table F-ratio was 3.22. Hence the post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 42. This confirmed that the disparity between the post test means of the focus were significant. The adjusted post-test means of the Aerobic circuit training with yogic combinations I, Aerobic circuit training with yogic combinations II and control groups were 3.54, 3.48 and 3.24 respectively. The attained F-ratio for the adjusted post-test means was 3.638 and the table F-ratio was 3.23. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 41. This established that there was a noteworthy difference among the means owing to the experimental trainings on vital capacity.

**TABLE - II : THE SCHEFFE'S TEST FOR VITAL CAPACITY**

Adjusted Final means			Mean Difference	Required CI
ACTYCI	ACTYCII	Control Group		
3.54	3.48	---	0.06	0.91
3.54	---	3.24	0.30*	
---	3.48	3.24	0.24*	

The multiple comparisons showed in Table X proved that there existed significant differences between the adjusted means of Aerobic circuit training with yogic combinations I and control group (0.30), Aerobic circuit training with yogic combinations II and control group (0.24). There was no significant difference between Aerobic circuit training with yogic combinations I and Aerobic circuit training with yogic combinations II (0.06) at 0.05 level of confidence with the confidence interval value of 0.91.

**FIGURE – 1 : GRAPHICAL ILLUSTRATION OF VITAL CAPACITY****Conclusion**

The aerobic circuit training with yogic combinations I and II had shown significant improvement on vital capacity of sedentary men.

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# 23

## THE ROLE OF SELF-CONFIDENCE IN SPORTS PERFORMANCE- THEORETICAL APPROACHES

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### ABSTRACT

*Self-confidence plays a significant role in how athletes perform, whether it is good or bad. For some athletes having self-confidence comes natural to them, but for others it can be something they struggle with over the course of their athletic career. It is because of this that some athletes perform better than others. Self-confidence typically refers to general self-confidence. This is different from self-efficacy, which psychologist Albert Bandura has defined as a “belief in one’s ability to succeed in specific situations or accomplish a task” and therefore is the term that more accurately refers to specific self-confidence. Psychologists have long noted that a person can possess self-confidence that he or she can complete a specific task (self-efficacy) (e.g. cook a good meal or write a good novel) even though they may lack general self-confidence, or conversely be self-confident though they lack the self-efficacy to achieve a particular task (e.g. write a novel).*

**Keywords:** *Imagery, Self-talk, Quality of Education, Self-confidence, Physical, Psychological, Mental and social adaptation and Verbal persuasion.*

### Introduction

Sport is a physical, psychological, mental and social adaptation tool for everyone. It is asserted that sport has an important role in having the feeling of self-confidence, socialization and success. Improving self-confidence is one of the subjects to be emphasized by the trainers in order to eliminate disagreements in the life and to raise children. It has been stated that the children of calm, receptive, and self-confident parents also exhibit self-confident attitudes; and, this improvement arises during the childhood period. Low level of self-confidence may be the reason of many problems. Failure, anger, drug abuse and temptation are listed among said problems. Sport is a complement of physical activities with specific rules. It assists the physical development of people and helps the performance to increase in personality, mental development, socialization and business life.

Self-confidence that is based on ability and support is vital for every exercise. That the people are guided towards the experiences, which will increase self-confidence and comprise high level of responsibilities, is extremely vital for forming the base of inner self-confidence. It is said that exercise programs may help the children to gain sports habits, to improve their psychomotor skills, to learn about cooperation, discipline, and team spirit. The children who learn to play sports will firstly pass the stages such as thinking, feeling and doing and then, will become individuals who feel psychologically good, are self-confident, physically happy, and self-disciplined.

Although some people naturally have an abundance of self-confidence, other people need to work at maintaining and even improving their self-confidence. Some techniques that may be used to increase self-confidence are:

- **Self-talk:** A performer can increase their motivation and improve their self-confidence by using positive 'self-talk' an internal running commentary of positive reinforcement.

- **Imagery:** This technique involves sports performance picturing themselves in a particular situation, perhaps executing the perfect performance. They can try to implant this image into their subconscious and then recall it when performing.

**Self-confidence and the effect on sports performance**

- ❖ **Verbal persuasion:** People who are close to a performer can convince them of their own ability. Teachers, coaches, peers, and family members can help performers to believe in themselves by persuading them that they can achieve their goals. This can be of real benefit if the performer is having doubts about themselves or about their performance.
- ❖ **Imagery:** If sports performers imagine what success looks like they can bring it closer to reality. Performers visualize and imagine the feelings and rewards of success.
- ❖ **Performance accomplishments:** Sports performers can gain confidence in their abilities by focusing on previous positive experiences. For example, if a player has a good game that will help them believe that they will do so again.
- ❖ **Vicarious experiences:** By observing other people's successful performances athletes can become more confident in their own ability. Watching videos of role models perfectly executing a specific skill or watching live demonstrations from coaches and teachers can have a significant influence on a sports performer's self-efficacy because they can model their performance on their heroes performance and visualize themselves performing the skill to the same standard.

**Theoretical Approaches to Studying Self-Confidence in Sport**

**(a). Self-Efficacy**

This theory, developed within the framework of a social cognitive theory, poses self-efficacy as a common cognitive mechanism for mediating people's motivation and behavior. People's judgment of their capability to perform at given levels affect their behavior their thought patterns, and their emotional reactions in demanding or anxiety provoking situations. Self-efficacy is a major determinant of behavior, however, only when proper incentives and the necessary skills are present.

**(b). Source of Information.**

According to Bandura's theory, expectations of personal efficacy are derived from four principal sources of information:

- Performance accomplishments,
- Vicarious experiences,
- Verbal persuasion, and
- Physiological arousal.

**(c). Performance accomplishments.**

The influence that performance experiences have on perceived Efficacy also depends on the perceived difficulty of the task, the effort expended, the amount of physical guidance received, and the temporal patterns of success and failure. Performance accomplishments on difficult tasks, tasks independently attempted, and tasks accomplished early in learning with only occasional failures carry greater efficacy value than easy tasks, tasks accomplished with external aids, or tasks in which repeated failures are experienced early in the learning process.

**(d). Persuasion.**

Persuasive techniques are widely used by teachers, coaches, and peers in attempting to influence the leader's behavior. These techniques can include verbal persuasion and/or bogus performance feedback. Efficacy expectations based on this type of information are also likely to be weaker than those based on one's own accomplishments are.

**(e). Physiological states.**

The level and quality of physiological arousal also provide an indication of self-efficacy. Although other theorists postulate that reduction in physiological arousal directly changes

behavior through reinforcement, some individuals may interpret increases in their physiological arousal as a fear that they cannot perform the skill successfully, whereas others may interpret this state as being psyched up and ready for performance. People use their levels of fatigue, fitness, and pain in strength and endurance activities as indicants of physical inefficacy.

**(f). Vicarious experiences.**

Efficacy information can also be obtained through observing or imagining others engaging in a task that observers themselves have never performed. The less experience one has had with a task or situation, the more one will rely on others to judge one's own capabilities. Similarities to the model in terms of performance or personal characteristics have been shown to enhance the effectiveness of modeling procedures on subjects' self-efficacy and performance

**Methods for increasing self-confidence**

**Improving concentration and effort:** An athlete is more likely to remain on the task and try hard if they believe that they have the ability to succeed. A performer with low self-confidence may lose concentration and become distracted by people around them, by other competitors, the crowd or their coach. If an athlete has low self-confidence, they are more likely to crumble

**(i). Learning Objectives**

**Producing positive emotions:** Being confident in your own abilities can generate other positive emotions, including pride in your performance and achievements, motivation to become even more successful, hope that you can achieve your goals and elation when you exceed your targets.

**(ii). Tactics and strategies:**

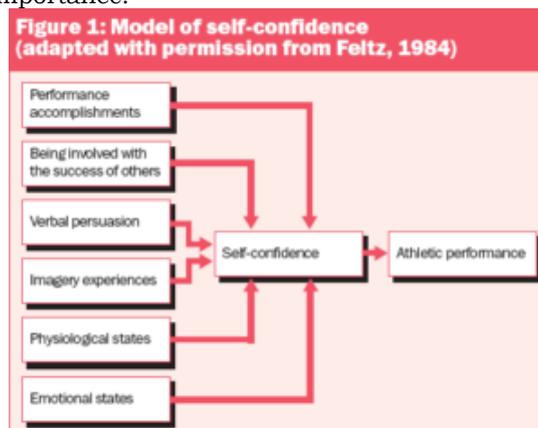
It is important in sport, particularly in invasion games such as rugby. Having self-confidence enables sports performers to have courage to create or contribute to creation of a game plan in their sport.

**(iii). Improving performance:**

Self-confidence is one attribute that contributes to improving performance. If an athlete does not believe that they can be successful, if one of their peers or their coach tells them that they are weak, and if, for example, they take the criticism to heart, they may not perform as well as a result.

**The six sources of self-confidence**

The confidence an individual feels during a particular activity or situation is generally derived from one or more of the following six elements, which are presented in figure 1 in order of their relative importance:



### **Variation between different categorical groups**

Social scientists have found ways in which self-confidence seems to operate differently within various groups in society.

#### **(i). Children**

In children, self-confidence emerges differently than adults. For example, Fenton suggested that only children as a group are more self-confident than other children. Zimmerman claimed that if children are self-confident they can learn they are more likely to sacrifice immediate recreational time for possible rewards in the future, enhancing their self-regulative capability. By adolescence, youth that have little contact with friends tend to have low self-confidence. Successful performance of children in music also increases feelings of self-confidence, increasing motivation for study.

#### **(ii). Students**

Many studies focus on students in school. In general, students who perform well have increased confidence which likely in turn encourages students to take greater responsibility to successfully complete tasks. Students who perform better receive more positive evaluations report and greater self-confidence. Low achieving students report less confidence and high performing students report higher self-confidence. Teachers can greatly affect the self-confidence of their students depending on how they treat them.

#### **(iii). Men versus women**

Some have found that women who are either high or low in general self-confidence are more likely to be persuaded to change their opinion than women with medium self-confidence. However, when specific high confidence (self-efficacy) is high, generalized confidence plays less of a role in affecting their ability to carry out the task. Research finds that females report self-confidence levels in supervising subordinates proportionate to their experience level, while males report being able to supervise subordinates well regardless of experience.

#### **(iv). Stereotype threat**

Stereotype threat examines of how a social identity that is negatively stereotyped causes vulnerabilities in a stereotype-relevant situation. This concept examines factors such as difficulty of the task while experiencing stereotype threat, beliefs about abilities, as well as the interplay of the relevance of the stereotype to the task.

#### **(v). Self-confidence in different cultures**

Some have suggested that self-confidence is more adaptive in cultures where people are not very concerned about maintaining harmonious relationships. But in cultures that value positive feelings and self-confidence less, maintenance of smooth interpersonal relationships are more important, and therefore self-criticism and a concern to save face is more adaptive.

#### **(vi). Athletes**

Many sports psychologists have noted the importance of self-confidence in winning athletic competitions. Amongst athletes, gymnasts who tend to talk to themselves in an instructional format tended to be more self-confident than gymnasts that did not. When athletes confront stress while playing sports, their self-confidence decreases. However feedback from their team members in the form of emotional and informational support reduces the extent to which stresses in sports reduces their self-confidence. At high levels of support, performance related stress does not affect self-confidence.

#### **Measures**

Some have measured self-confidence as a simple construct divided into affective and cognitive components: anxiety as an affective aspect and self-evaluations of proficiency as a cognitive component.

Maintains frequent eye contact or almost completely avoids eye contact,

1. Engages in little or no fidgeting, or, a lot of fidgeting,
2. Seldom or frequently uses self-comforting gestures (e.g. stroking hair or chin, arms around self),

3. Sits up straight facing the experimenter, or, sits hunched over or rigidly without facing the experimenter,
4. Has a natural facial expression, or, grimaces,
5. Does not twiddle hands, or, frequently twiddles something in their hand, or,
6. Uses body and hand gestures to emphasize a point, or, never uses hand or body gestures to emphasize a point or makes inappropriate gestures.

### **Wheel of Wellness**

The Wheel of Wellness was the first theoretical model of Wellness based in counseling theory. It is a model based on Adler's individual psychology and cross-disciplinary research on characteristics of healthy people who live longer and with a higher quality of life. The Wheel of Wellness includes five life tasks that relate to each other:

- Spirituality,
- Self-direction,
- Work and
- Leisure,
- Friendship, and love.

There are **15 subtasks** of self-direction areas: sense of worth, sense of control, realistic beliefs, emotional awareness and coping, problem solving and creativity, sense of humor, nutrition, exercise, self-care, stress management, gender identity, and cultural identity. There are also five second-order factors, the Creative Self, Coping Self, Social Self, Essential Self, and Physical Self, which allow exploration of the meaning of wellness within the total self. In order to achieve a high self-esteem, it is essential to focus on identifying strengths, positive assets, and resources related to each component of the Wellness model and using these strengths to cope with life challenges.

### **Implicit vs. explicit**

Implicitly measured self-esteem has been found to be weakly correlated with explicitly measured self-esteem. This leads some critics to assume that explicit and implicit self-confidence are two completely different types of self-esteem. Therefore, this has drawn the conclusion that either one will have a distinct, unconscious self-esteem OR they will consciously misrepresent how they feel about themselves.

Inaccurate self-evaluation is commonly observed in healthy populations. In the extreme, large differences between one's self-perception and one's actual behavior is a hallmark of a number of disorders that have important implications for understanding treatment seeking and compliance.

### **Conclusion**

Self-confidence is must for a sports man to achieve in the competitions. Optimum level of confidence is required for higher achievement. Lack of confidence and over confidence decline the performance. Self-confidence is differs to athlete to athlete and event to event. The past experience, mastery in skills and the social support increases the self confidence in sports man. And performance and self-confidence of athlete is correlated. Self-confidence is not a motivational perspective by itself. It is a judgment about capabilities for accomplishment of some goal, and, therefore, must be considered within a broader conceptualization of motivation that provides the goal context. One's self-confidence increases from experiences of having mastered particular activities. It is a positive belief that in the future one can generally accomplish what one wishes to do. Self-confidence is not the same as self-esteem, which is an evaluation of one's own worth, whereas self-confidence is more specifically trust in one's ability to achieve some goal, which one meta-analysis suggested is similar to generalization of self-efficacy.

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# 24

## COMPARATIVE STUDY OF BREATH HOLD CAPACITY BETWEEN DIFFERENT TRIBAL'S MALE STUDENTS

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### **Abstract**

*The main purpose of the present study was to find out the significant differences of breath hold capacity between different tribal male high school students. For the study, the researcher was selected the samples from the Beda and Soliga tribal racial in Mysore and Chamarajanagara districts. The samples were selected randomly, total size of the samples was sixty four (N=64) from both Beda (N=32) and Soliga (N=32) tribal group, age ranging between 13 – 15 years. In this study the criterion measures was physiological variable like breath hold capacity which assess the lung volume by breath hold test. The breath hold capacity was compared between the selected subjects for the differences existed using ANOVA statistical technique. The study proves that though there seem to be differences on the selected physiological variables. The Soliga tribal students were had high breath hold capacity than the Beda tribal students. But, both Beda and Soliga tribal male students were had good breath hold capacity which reflecting on their lung volume. Hence, it was concluded that the significant differences were noted in the said variable due to the daily vigorous work and differences of tribal racial of the tribal male high school students of Mysore and Chamaraja Nagara districts. ( $P < 0.05$ ,  $F = 12.14$ ).*

**Keywords:** *Breath holding capacity, Beda tribal and Soliga Tribal.*

### **Introduction:**

Exercises in the form of sports, aerobics or workouts, if performed regularly have a beneficial effect on the different systems of our body (Word, 1994). Exercises and breathing are clearly associated with physical activity. Proper breathing pattern is very essential to a person one who engaging in sports activity. Because, it can help them become more successful an activity and increase the capacity of lung. When the athlete's lung increased can help an athlete became more energetic during sport activity feel more freshed after the sport. And it can also help to the persons one who involve in the sports for prevent the respirator disorder.

The lung functional test like other physiological tests must be of the almost importance for measuring the level of fitness of an individual from a physiological point of

view (Astrend, (1960), Rodehl, 1970). Breath hold test is one of the pulmonary function tests which is using to determining the capacity of lung, cardio pulmonary reserve in an individual. Inefficiency of lung can easily be diagnosed with pulmonary function testing. But a conventional way of doing pulmonary function test is not possible due to the high sensitive attitude of the tribal peoples, high cost of test and facility which is not facilitate easily at tribal areas, but many studies conducted that breath holding test can be used to determine the vital capacity (Prasenjit Naskar and Proloy Karmokar, 2016). However till now, there is no report regarding breath holding capacity in tribal populations. Thus, the main aim of the study is to know the lung volume in healthy subjects of different tribal male students by using breath holding test and as an easy and safe method to determine pulmonary function.

#### **Objective of the study**

Objective of the study was to examine the lung volume of different tribal male students of Mysore and Chamarajanagara district.

#### **Statement of the study**

Statement of the study was that comparative study of breath hold capacity between Different tribal's male students of Mysore and Chamaraja Nagar District.

#### **Delimitation of the study**

1. This study was delimited to thirty two samples from each group of Bedas (N=32) tribal and Soligas (N=32) Male high school students of Mysore and Chamaraja nagara district.
2. This study was delimited to the age range between 13 to 15 years of the samples in the years of 2023-24.
3. This study was delimited to breath hold test to assess the lung volume of bedas and soligas tribal students.

#### **Limitations of the study**

The different modes of sports activity, the personal routine dietary habits modes, temperaments, & motivational factors of the subjects selected during test performance and their influence on the data collecting has considered as limitations of the study

#### **Hypotheses of the study**

**H** - There is no significant difference of breath hold capacity between bedas and soligas high school male students of Mysore and Chamaraja nagar district.

#### **Significant of the study**

The present investigation may be considered as worthwhile on the following grounds. The result of the study will serve as diagnostic and prognostic tools for identifying individuals with specific abilities needed for health and wellness. And also, the results of the study will give a knowledge and indication as to how much of difference of breath hold capacity which might have influence to get the total lung volume among selected subjects.

#### **Methodology**

The investigator has conducted a study to know the status of lunge volume though the examination of breath hold test among various tribal male students of Mysore and Chamarajanagara district. The number of subjects for the study has been decided according to the availability of tribal school going students. The samples of the subjects were purposively selected for the present study. However, the researcher was selected total sixty four samples from tribal area those who were studying in high school level and classified into two groups based on their category, one was Bedas (N=32), next one was Soligas (N=32). The age ranging between 13 to 15 years of 2023-24<sup>th</sup> academic years. Therefore, based on literary support, this study was taken point out their physiological variables for investigation, which were closely related to the purpose of this study. To measure the lung volume variable, the breath hold test was conducted with using systematic procedure. The ANOVA statistical technique was used to identify the significant difference between the

selected samples. The level of significance was set at 0.05 level of confidence, which was considered appropriate for this study.

**Results**

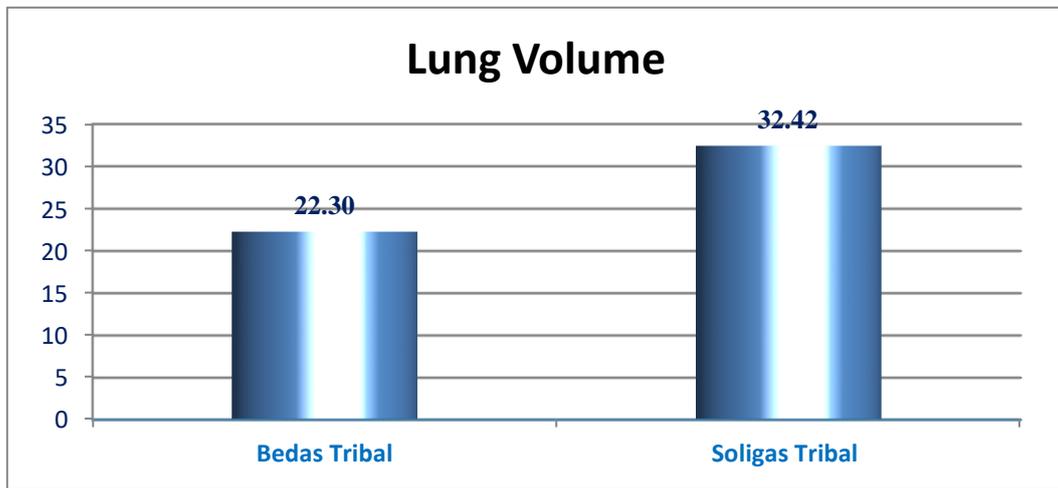
The ANOVA descriptive statistical findings of the study related to physiological variable that is breath hold capacity has been presented in table 1.

**Table no. 1 shows that the descriptive statistics of Beda and Soliga tribal male students for compare the level of difference.**

SUMMARY - Breath Hold Capacity						
	N	S. Error	SD	Average	Variance	Sum
Bedas	32.00	1.02	5.78	22.30	33.41	713.63
Soligas	32.00	2.72	15.38	32.42	236.50	1037.45

Above the table no. 1 shows that, the mean and standard deviations of Bedas and Soligas tribal male high school students on breath hold capacity was 22.30 +/- 5.78 with the variance 33.41 and 32.42 +/- 15.38 with the variance 236.50 respectively.

**The graphical representation of mean of selected physiological variables are presented in Fig.1**



**Fig. 1 Mean of selected physiological variables.**

Above the bar diagram indicated the there was different level of breath hold capacity between beda and soliga tribal male students. It indicated that the Soliga tribal students had high level of breath hold capacity than the Beda tribal students.

**Table no. 2 Comparison of scores on breath hold capacity between Bedas and Soligas tribal male high school students**

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1638.43	1.00	1638.43	12.14	0.00	4.00
Within Groups	8367.34	62.00	134.96			
Total	10005.77	63.00				

From the above column of the ANOVA table, it observed that the selected physiological variables – breath hold capacity was significant difference between the Bedas and Soligas tribal male students. Above the result showing that the 'P' value was less than the 0.05 and 'F' value is 12.14 which showing significantly difference between said samples. In other word, the Breath hold capacity more in Soligas tribal students than the Bedas tribal and Soligas tribal students have high lung volume than the Bedas tribal students which is point out our Hypothesis which states that the selected physiological variables

such as breath hold capacity was not significant difference between Beda's and Soliga's high school male students of Mysore and Chamaraja nagar district was rejected and alternate hypotheses was accepted at 0.05 percent level of significant.

**Discussion**

The result is very clearly showing that the variable was significantly differing between different tribal boys. This result indicated that our Hypothesis which states that there was no significant differences of breath hold capacity between Beda's and Soliga's high school male students of Mysore and Chamaraja nagar district was rejected and alternative hypothesis was accepted at 0.05 percent level of significant. This kind of result might be due to their difference in daily physical activity level, life style, food habits, genetic factors and environmental factors and etc. According to the previous results of the studies, during the growth and development of the physiological capacity and abilities also developed but for some limited period after that are varying from each individual. And also, the racial and socio economic conditions might have been an impact on said variable in the present study.

**Conclusion:**

The study proves that though there seem to be differences on the selected physiological variables. The both Beda and Soliga tribal male students were have good breath hold capacity which reflecting on their lung volume. Hence, it was concluded that the differences were noted in the said variable due to the daily vigorous work and differences of tribal racial of the tribal male high school students of Mysore and Chamaraja Nagara districts.

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# 25

## HEALTH, WELLNESS AND NUTRITION: AN OVERVIEW

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### **Abstract**

*Wellness is act of practicing health habits on a daily basis to attain Physical and mental health outcomes. It is always linked with health nutrition awareness is very important to maintain health and wellness. Nutrition aspects like Micronutrients and Macro nutrients are the part of Nutrition which may contribute on health and wellness.*

**Key words:** *Micronutrients, Macronutrients, wellness, nutrition health.*

### **Introduction:**

Health, wellness is very prominent place in human's life. Man is more comfortable if he has good health. he can carry out daily task without undue fatigue to achieve good health and to become wellness in his life one should have the knowledge of nutrition and its implication on health and wellness. This paper mainly focus on the overview of health, wellness and Nutrition.

### **Health, wellness and Nutrition:**

The Global wellness institute defines wellness as "The active pursuit of, choices and lifestyles that lead to a state of holistic health". There are two important aspects to this definition. First, wellness is not a passive state but rather an active pursuit" that is associated with intentions, choices and actions as we work towards an optimal state of health. Second, wellness is linked to holistic health that is, it extends beyond physical

Good nutrition is one of the keys to a healthy life and good wellness. Nutrition plays vital role in health and wellness of the man's life from beginning to end that is birth to death.

To well maintenance of health and wellness requires good nutrition, it influences on our life significantly.it is more important for physical, mental and cognitive growth of an individual.

Nutrition refers to food that we eat, proper nutrition requires a balance of three basic food types- carbohydrates, fats and proteins with required vitamins and minerals. According to WHO health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infinity". Wellness which means Positive state that is beyond simply non-sickness. The difference between health and wellness, saying that health is a state of being, whereas wellness is process of being (Jones2005).

According to (Adams2003) The main Principles of wellness.

- Wellness is multidimensioned.
- Wellness research and practice should be oriented towards identifying causes of wellness rather than causes of illness
- Wellness is about balance.
- Wellness is relative, subjective and perceptual.

### **Importance of wellness:**

Wellness is important because it impacts so many areas of life. Honestly, everyone wants to live their life to the fullest potential. Unfortunately, this is not easy. Life often comes with challenges and things we can't control. Fortunately for us, optimizing our overall

well-being is something we can. Upon doing so, we will notice significant benefits, both personally and professionally. Wellness is important in personal point of view; it is important because it has to do with the choices you make to thrive in our personal life. In fact, balancing all that life has to offer is easier when we have a personal wellness plan. Doing so helps us best succeed in life as well as challenges to grow into the best version of our self.

If we take wellness as professional important, professional wellness is important because it has to do with the choices that make to grow in our career. Employees that after wellness programmes find they are able to improve the overall health and well-being of their employees. This leads to happier employees that spend less money on health care and more time being productive their careers. Wellness is state of being in maximum health and well-being. It encompasses the body, mind and spirit, which are integrated by an individual to live life fully within the human and community or else to environment. Being in a state of well-being individual joy and happiness is seen in the lives of the people. Less stress is experienced when wellness prevails. Wellness is an indication of an individual's quality of life, which has been used to show how individuals are satisfied.

Wellness is very important because it benefits our physiological and psychological aspects:

- ✓ Stronger, heart body and mind
- ✓ Less stress
- ✓ Better able to deal with stress feel situation
- ✓ Increased life expectancy and better quality of life
- ✓ Lower cholesterol
- ✓ Better positive self-esteem
- ✓ Better socialize.

**Dimensions of wellness:**

There are several main dimensions to defining wellness.

- **Physical wellness:**  
Physical wellness: This is probably the first thing you think of when we think of health and wellness. But physical health is much more than losing a few pounds. Physical wellness is taking the necessary steps to maintain optimal health and functioning. This includes participating in physical activity and maintaining proper nutrition by eating a well – balanced diet.
- **Financial wellness:**  
Financial wellness: Having the ability to live within our means, including a healthy relationship with many and identifying effective ways to manage it. To manage this and build financial wellness, one should create a self-budget, state identifying wants and needs and make arrange accordingly.
- **Emotional wellness:**  
Emotional wellness: Emotional well-being focus on thoughts, feelings, behaviours, whether positive or negative and coping and accepting them accordingly. Emotionally wellness always, doesn't fail to seek out support if or as needed. It also provides support to others, cultivate a more optimistic attitude and accept and forgive our self.
- **Social wellness:**  
Social wellness: Interacting appropriately with the world around us and the people in it. Social wellness has to do with the relationship we have and interaction with others, how we relate and connect with others having strong and positive relationship provides us with support as well as self-esteem joy and connection. To develop social wellness, join a club or organization that interests with us, keep in touch with supportive friends and family, distance our self from toxic individuals.

- **Intellectual wellness:**  
Intellectual wellness: Participating in lifelong learning and challenging the mind on an ongoing basis such as part taking in mentally stimulating and creative activities, objectively and critically, making responsible decisions and exploring new ideas and different points of view. Intellectual wellness refers to participation in new and creative activities, learning and exploring new skills.
- **Spiritual wellness:**  
Spiritual wellness: This can refer to religion, values, faith, ethics, morals etc. It always allows you to be in touch with our self and what we believe in. In this aspect, we are likely to find meaning, purpose, appreciation and our guiding compass. If we identify with a specific religion, continue to explore that, if we don't be open to exploring different belief systems.
- **Occupational wellness:**  
Occupational wellness: This refers to how we interact with our job, our achievements at work and outlook of the work we do, our attitude towards our work directly influences our overall health. Set realistic career goals and work towards them. Occupational wellness obtaining personal fulfilment from the work we do and perform with honesty, enthusiasm and engagement on a regular basis.
- **Environmental wellness:**  
Environmental wellness: This refers to our relationship with our environment, living in harmony with the earth and taking care of the surroundings, just like plants, we need sunlight, fresh air and fresh water to thrive, use water wisely and conservatively.

Balanced wellness is benefited in various aspects mainly

- Academic success
- Resistance to illness
- Mental fitness
- Maintain stress level
- Build energy and Endurance.

The concepts of nutrition which related to balanced diet to an average person is the consumption of food which builds the body.it includes food intake and excretion (WHO 2012). Consuming too many types of food and drink which are low in fiber or high in fat, these unhealthy eating habits can affect our nutrient intake.

**Benefits of nutrition to health and wellness:**

- Reducing risk of certain diseases
- Weight control: proper eating and exercise regularly can avoid excess weight gain.
- Boost our energy and immune system.
- Stimulates the production of endorphins which keeps feeling happier and relaxed.
- Nutrition prevent stroke, high blood pressure.

**Impact of poor nutrition to health and wellness: -**

- Poor nutrition reduces our ability to lead happy and active life.
- Lack of nutrition causes anaemia, body weakness, unlearned vision, fainting.
- High rate of morbidity and mortality especially among children.
- Health risk like cholesterol, type-2 diabetes, high blood pressure, osteoporosis, depression etc.

**Conclusion:**

Every individual expects to lead life more comfortably without any health problems. So one should know the awareness of the importance or role of nutrition to health and wellness. The proper guidance and maintaining the principles of wellness may reduce the risk of illness and live a better life without any health hurdles.

**Healthy Mind Healthy Nation**

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# 26

## A STUDY ON PROMOTION OF SPORTS ACTIVITIES IN INDIA

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### **Abstract**

*Motivation comes in many forms. Some are driven to success by the sense of pride it brings in. Some are inspired to excel by the fame that is likely to follow. Several path-breakers have stayed too focused on the job to even think about the fringe-benefits due to their success. Generally, for an aspiring sportsperson in India, one more source of incentive matters much. That is, performance-related cash awards from the Central government, State government or even employers. In multi-discipline games — Olympics, Asian and Commonwealth — India is usually far from the front-runners. For a country where sports is not a priority due to more compelling socio-economic reasons, cash rewards do play their part in bringing out the best from the sportspersons particularly in these games. After all, majority of these performers are not professionals. Therefore, cash incentive has a bearing on their future.*

**Keywords:** Asian Games, cash awards for sportspersons, International, National, Sports achievement motivation

### **Introduction**

Games and sports are a very necessary part of life. They keep us healthy and refresh our weary minds. Sports and physical education are useful for both for our mind and body. Physically all become healthy and mentally become disciplined. Games give us wisdom and courage, and make us bold and confident. They develop in us a spirit of co-operation. They teach us to fight in a healthy spirit, like a player fighting or playing with his rival in the playground. An ideal player has no ill-will against anyone. In short, games help to make us good citizens. Our education is incomplete without sports. Games are very useful in keeping the students and citizens busy and in developing their personalities. In modern times, there has been increasing recognition of the role of sports in Development.

Countries like India, which are experiencing a sharp rise in their youth population, enjoy a major advantage over others in terms of lower dependency ratios, which for investing in the future. Youth development through sport development assumes immense relevance, as it contributes to bringing youth together, overall personality development, and making youth more confident, focused, productive, and conversant with team work. It is these attributes that are essential to national development process. The two-fold objective of the current programme of the Central Government is participation in the main stream of internationally current programmes of physical education and sports simultaneously with the broad based mass participation and promotion of country's traditional and indigenous activities in this field. While formulating programmes for promotion of physical education and sports the complementary nature of competitive sports aimed at excellence and high achievement on the one hand and broad-based mass physical education and sports programmes on the other have been kept in view the salient features of the programme as implemented during the year at the Central level were as under All India Council of Sports.

The 3-year term of the All India Council of Sports, which has been set up by the Government of India to advise it on matters pertaining to promotion of sports and games and which was last reconstituted for a 3-year term in July, 1978 under the Chairmanship of Field Marshal S. H. F. J. Manekshaw expired on July 20, 1981. While reconstitution of the Council is still under consideration of the Government, and the term of the existing Council was extended for a period of 3-months. During 1981, while the Council held two meetings, its Executive Committee met three times.

Prime Minister Dr. Manmohan Singh has repeatedly emphasized from several forums the key role of youth in national development. The single most important comparative advantage which India has over other's is that right through the first half of 21st century, India's youth population will be burgeoning while the developed world and even China will have to increasingly bear the burden of an ageing population. At the same time, this comparative advantage can be availed of only if we nurture our youth, educate them and impart to them the required skill's.

#### **Development of Sports Infrastructure through Five Year Plans**

In India, the integration of physical education and sports with formal education was emphasized in the First Five Year Plan itself. The Lakshmibai National Institute of Physical Education (LNPE) at Gwalior and National Institute of Sports (NIS), Patiala were established in the Second Five Year Plan. The National Coaching Scheme and the Rural Sports Programme were started in the Third Five Year Plan and expanded during the Fourth and Fifth Five Year Plan's.

Talent spotting and nurturing was emphasized in the Sixth Five Year Plan. The Seventh Five Year Plan focused on the creation of sports infrastructure. The development of Rural Sports through a special Area Game was the thrust of the Eighth Five Year Plan. The Ninth Five Year Plan emphasizes the need of modern sports infrastructure. The Tenth plan sought to promote both the broad-basing of sports and the promotion of excellence in sports.

#### **Society for the National Institutes of Physical Education and Sports:**

The Society for the National Institutes of Physical Education and Sports (SNIPES), set up in 1965, as an autonomous body to look after the maintenance and administration of the two national Institutes of Physical Education and Sports, namely, the Netaji Subhas National Institute of Sports (NSNIS), Patiala and the Lakshmibai National College of Physical Education (LNCPE), Gwalior and also to, initiate steps for raising the standards of sports and games in the country through the National Coaching Scheme continued to function under the Chairmanship of Dr. Amrik Singh, Secretary of the Association of Indian Universities. SNIPES also carried out advisory functions at the national level in matters relating to promotion of physical education and yoga. SNIPES was last re-constituted for the 3-year term in June, 1979. During the year it held 4 Meetings and its Standing Committees also met to attend to the assignments given to them by SNIPES. Lakshmibai National Institute of Physical Education The Lakshmibai National College (now Institute) of Physical Education was established by Government of India, on 17th August, 1957, the centenary year of the first war of Independence. The Institute is located at Gwalior where Rani Lakshmibai of Jhansi had lost her life. In recognition of the educational services rendered by the Institute in the field of physical education, sports and research and on the recommendations of the University Grants Commission, the Government of India, Ministry of Human Resource Development (Department of Education) declared this Institute as a "Deemed to be a University". The primary object of the College, which is one of the two National Institutes established by the Government of India in the field of Physical Education and Sports, is to provide facilities for training of high caliber Physical education teachers for educational institutions and others.

During the year, the College continued to discharge its primary responsibility of offering teacher training programmes at the graduate and post-graduate levels. Set up in

1957, the College is celebrating 1981-82 as its Silver Jubilee year. Since its inception the College has produced 1475 graduates and 472 post-graduates in, physical education. For the academic session 1981-82 with the admission of 114 students to its regular teacher training courses, the total student strength of the College was 370 including 74 women. Besides this programme, the College continued to offer extension services and refresher courses for the in-service personnel, in the field of physical education and sports. Further, it continued to implement on agency basis, the Central programmes like National Physical Fitness Programme, National Prize Competition for the Published Literature on Physical Education and Sports on behalf of the Central Government.

**National Physical Fitness Scheme:**

The Scheme, which was introduced by the Central Government in 1959, Programme to popularise the concept of physical fitness among the people and also to arouse their enthusiasm for higher standards of physical fitness and achievement, continued to be implemented during the year in collaboration with the State Governments/Union Territory Administrations and other selected agencies. The Lakshmbai National College of Physical Education, Gwalior, continued to function as the Central agency for implementation of the Scheme.

The 22nd All India Seminar for the State Liaison Officers connected with the implementation of the programme was held at Pachmarhi to review the performance of the programme during the previous year and to formulate the proposals for the current year. The programme was accordingly implemented as per the present pattern during 1981-82 with a total participation target of 20 lakhs. The 21st All India Competition for National Award in Physical Fitness was held at Gwalior in February 1982. A large number of participants from different States and Union Territories took part in the competition.

**Physical Education and Promotion of Yoga:**

Yoga is based on the complete control of body and mind. The promotion Scheme for Yoga, which is a part of the overall programme of Ministry for development of physical education and sports continued to be implemented during the year as per the existing pattern. The Kaivalyadhama Shreeman Madhava Yoga Mandir Samiti, Lonavala (Pune) continued to be assisted for its maintenance and developmental expenditure for its research and/or teacher training activities in the field of Yoga. The recommendations made by a Review Committee which was, set up to assess the working of the Samiti and to make recommendations with regard to its projected development during the coming years have since been accepted by the Government.

These recommendations include inter alia strengthening of the research and/or teacher training programmes of the Samiti Grants to Physical Education. This Scheme, which has been taken up as an independent Scheme from Teacher Training Institutions 1979-80 onwards, provides for financial assistance to physical education teacher training institutions, both Government as well as non-Government, through the State Governments, to cover 50% of the expenditure on specific projects for improvement of physical facilities in these Institutions like construction of gymnasias, swimming pools, development of playgrounds, and purchase of library books and sports equipment, subject to the ceiling of Central Government grants stipulated for each project. The scheme continued to be implemented during the year in consultation with SNIPES. On the basis of the recommendations made by SNIPES, a revision of the existing pattern of the financial assistance of the scheme so as to make its nature and scope more broad-based and its implementation more effective is under consideration with the Ministry.

**The Netaji Subhas National Institute of Sports**

(NSNIS) Patiala, established by the Government of India in 1961, along with its Southern Centre located at Bangalore (established in 1975) has been entrusted with the responsibility of training high caliber coaches in various sports disciplines and also to implement, on agency basis, on behalf of the Central Government, the National Coaching

Scheme through a countrywide network of Regional Sports Coaching Centres which are being run in collaboration with the State Sports Councils, State Governments and Nehru Yuvak Kendras. The Institute continued to offer regular and condensed coaching courses in various sports disciplines. For the academic session 1981-82, 369 trainee coaches including 25 foreign trainees, were admitted to the regular courses at the Institute, in 16 sports disciplines. Since its inception in 1961, the Institute has so far produced 5162 coaches including 130 from foreign countries in different disciplines.

Under the National Coaching Scheme of the Institute 23 Regional Coaching Centres are functioning all over the country in collaboration with the State Sports Councils/State Governments. The National Coaching Scheme has now a sanctioned strength of 650 coaches out of which 584 coaches are in position including several international and national champions, spread all over the country. Besides its regular coaching programme, the Institute continued to implement, on agency basis, the Central Programmes of National Sports Festival for Women, All India Rural Sports Tournaments, Sports Talent Search Scholarships Scheme on behalf of the Ministry of Education and Culture.

In the context of India's preparations for the IX Asian Games, the Institute has been entrusted with the job of training the national teams for their participation in the Games and also for importing sports equipment for use in training for and in competitions for the Games. The Institute has also requisitioned the services of foreign coaches for the preparation of Indian teams for the Games.

The Institute has also been rendering technical assistance to the Special Organising Committee of the Asian Games in various matters pertaining to India's preparations for the Games. Consequent upon Government approval to the construction of the new complex of the South Centre of the Institute at Bangalore at a total estimated cost of Rs. 2.5 crores, construction programme of the new complex is being formally started. The Eastern Centre of the Institute at Calcutta is also likely to start functioning shortly.

#### **Academics in the Field of Sports**

The Sports Authority of India has two functional wings relating to academics which are in the fields of sports and physical education. These are:- Netaji Subhas National Institute of Sports, Patiala (NSNIS) and LNCPE, Trivandrum. (a) Netaji Subhas National Institute of Sports, Patiala The Institute conducts academic courses for training of coaches and looks after research and development in sports related subjects. It conducts 24 months' diploma courses in fifteen sports disciplines and also offers 22 months' specialised post diploma master's course and 1 year post graduate diploma course in sports medicine. NSNIS is the only institute of its kind in the country and has so far trained 11,751 coaches at Patiala and at its centres at Bangalore (established in 1975), Calcutta (1983) and Gandhinagar (1987). In addition, under the Mass Sports Participation Programme, certificate courses of six weeks duration were held at these centres and 15,601 sports instructors have so far been trained. NSNIS is also conducting one year post MBBS Diploma course in sports medicine and 28 doctors have so far qualified. The period of this course has been raised to two year from the academic session 1993- 94. (b) LNCPE, Trivandrum This College was inaugurated in 1984 and is fast developing in terms of infrastructural facilities, academic programmes and other essential requirements. This college offers a 3 year Bachelor of Physical Education (BPE) and 2 years M.PE degree courses. One hundred and forty six students (67 boys and 59 girls) are at present studying in the college. Upto the academic year 1995-96, 270 students have passed out from the college.

Promotion of Sports Grants to State Sport Councils In consultation with, and on the recommendation of the All India Council of Sports, financial assistance under the Scheme, as per the approved Pattern and in accordance with the order of priority laid down by the Council, was released to the State Sports Councils in States and Union Territories during the past years for development of following facilities (i) Organisation of State level coaching camps; (ii) Maintenance of existing Rural Sports Centres and establishment of new Centres;

(iii) Financial assistance for purchase of sports equipment; (iv) Development of play-fields; (v) Construction of stadium; and (vi) Construction of swimming pools.

#### **National Sports Organisation**

The Scheme, which is being implemented through the University Grants Commission, Association of Indian Universities and the NetajiSubhas National Institute of Sports, aims at improving sports standards among college and university students and helping the talented sportsmen and women to achieve excellence in their respective sports disciplines. Whereas financial assistance is given through the University Grants Commission for construction of Gymnasia, development of play-fields etc. in colleges and Universities, the Association of Indian Universities have been entrusted with the job of organising coaching-cum-sports competitions among the college and university students. Similarly, 100 scholarships annually of the value of Rs. 1200 per annum per student are being awarded through the NetajiSubhas National Institute of Sports to outstanding College and University sportsmen and women.

#### **Grants to National Sports**

The National Sports Federations /Associations are autonomous bodies Federations/Associations engaged in the promotion of sports and game' in general and their competitive aspect in particular. During the past years National Sports Federations/Associations continued to be assisted for various purposes viz.

- (i) Grant of passage cost to National Sports : Federations for deputing teams abroad for participation in international fixtures;
- (ii) Holding of National Coaching : Camps for preparing national teams for their participation in international events;
- (iii) Holding of Annual Coaching Camps; (iv) Receiving sports teams from abroad and sending Indian teams abroad.

#### **All India Rural Sports Tournaments**

The country-wide programme of Rural Sports Tournaments was launched by the Central Government in 1970-71 with the twin object of involving a major segment of our youth in rural areas into the main stream of the country's sports activities and also to spot and nurture sports talent. The Programme at present involves an annual participation of about 15 lakhs rural youth right from the block level up to, the National level. The programme is being organised, by the NetajiSubhas National Institute of Sports, on agency basis, on behalf of the Government.

#### **International Sport Development Agreement Confirmed For India:**

UK Sport and the Government of India's Ministry of Youth Affairs and Sport signed a Memorandum of Understanding in New Delhi recently which marks the start of an international sport development partnership that will reach thousands of school children and communities throughout India. The agreement brings together national and international experts in the fields of development, physical education, sport development and sporting excellence to provide access to quality physical education and sport at community level and the development of pathways to excellence for elite athletes. This new commitment between both nations was sealed by Richard Stagg, British High Commissioner to India, and S. K. Arora, Secretary of the Ministry of Youth Affairs and Sport. The ceremony was also attended by Mr Mani Shankar, the Government of India's Minister of Youth Affairs and Sports, who is currently leading the finalising a new national sports policy. The partnership agreement offers both parties a unique opportunity to share best practice methods and expertise, while also allowing those involved in sport in the UK to keep up to date with the latest international developments. UK Sport's Head of Worldwide Impact, Debbie Lye, confirmed that as a sporting nation India has an important role to play internationally in youth development through sport and future legacy planning for the hosting of international sporting events. The programmes initiatives commenced shortly with an inward visit to the UK by key organisations involved in physical education and

school sport in India. This will be one of the first steps in supporting the programmes vision of developing sustainable and supportive systems within which children and young people of all abilities can enrich their lives by playing and excelling in sport.

**Some Schemes and Incentives for promotion of sports activities in India**

- Cash Awards to Winners of Medals in International Sports Events
- Sports Talent Search Scholarship Scheme
- Scholarships for Training of Specialists and Outstanding Sportspersons
- Sports Fund for Pension to Meritorious Sportspersons
- National Welfare Fund for Sportspersons
- Travel Grant to Sports Specialists
- Promotion of Sports and Physical Education among Women
- Rural Sports Programme
- Rural Sports Clubs
- North Eastern Sports Festival
- Dr. B R. Ambedkar Rural Sports Tournaments
- National Sports Festival for Women
- Evaluation of Sports Schemes
- Exchange of Sports and Physical Education Teams/Experts
- SAF Games,

**National Sports Policy for India**

It will thus be seen that at the time of the formulation of our constitution, “sports” were seen as a form of recreation and little more, on par with “entertainment and amusements”. The role of sport’s in national development requires to be redefined to accord to sport’s that critical role in youth development which is prerequisite of accelerated and inclusive national development.

Physical education and sport’s have been receiving support under Successive Five Year Plans, but received attention as a subject of policy only after India hosted the IXth Asian Games in 1982. The National Sports Policy, 1984 was the first move towards developing a conducive policy framework for the development and promotion of sport’s in our country. The implementation of the National Sports Policy, 2001, that focuses on excellence and broad basing of sporting activities. The policy seeks to realise the unfulfilled objectives of the earlier government guidelines on sports which were included in the National Education Policy of 1986, “It was felt that many objectives contained in the National Education Policy remained substantially unrealised. Therefore, in order to tackle emerging trends in sports the NSP has been formulated, The policy focusses on enhanced participation of women tribals and rural youth in sporting activities and encouragement to traditional games like archery, kabaddi and kho-kho.

The NSP proposes to set up specialised sports schools in various parts of the country and make physical education compulsory in school curricula till the secondary stage, The development and upgradation of infrastructure is sought to be given a filip and incentives have been announced to attract corporate involvement in sporting activities. Companies would be provided 100 per cent tax concession on money spent on promotion of sports as assured by Finance Minister YashwantSinha (in 2001) earlier.

There was an urgent need to tap sporting talent from rural and tribal areas and the Centre would supplement the efforts of state governments in achieving this aim, “The Panchayati Raj institutions will also be involved in promotion of sports at the grassroots level and developing the required infrastructure, adding special emphasis would be given on encouraging sporting activities in the North-Eastern states. The policy also seeks to strengthen scientific coaching and provides for incentives to sportspersons who excel at the national and international levels. The policy, based on the recommendations of A.K. Pandya Committee submitted in 1984, envisages government support to all the national federations

and other agencies involved in promoting sporting activities and the combining of sports with tourism. The Ministry of Youth Affairs & Sports proposes to have a national consultation on the draft comprehensive National Sports policy in 2007. The 2007 Sport's Policy fully recognizes the contribution of physical education and sport to personal development, especially youth development, community development, health and well-being, education, economic development and entertainment, and in the promotion of international peace and brotherhood, which is the spirit of olympism. The Comprehensive National Sport Policy 2007 aims at the making the framework for sports in India more effective and inclusion with the full ownership and involvement of all stakeholder's. The policy aims at adopting a holistic approach to sports developments taking into account the health benefits, recreation benefits, education benefits, social benefits, economic benefits and source of national pride that it offers. So the need to require a alignment of responsibilities between the Union and State Government and the Indian Olympic Association, the Sports Authority of India, the National Sports Federation and their affiliated bodies at the state and district level, and corporate bodies. All of this in turn might require Constitutional changes and elaboration of a suitable legal framework.

#### **Limitations in the field**

The investment made by most of the states in sports has been negligible, although a few states have shown the way to according a high priority to sport's. In consequence, we have not succeeded in providing universal access to sports, or creating a national sports culture, thus also impairing excellence in sports. It is estimated that out of a population below 35 year's of some 77 crore, only 5 crore or so have any access to organized sports and games, to the neglect of nearly 72 crore of our children, adolescents and youth. Serious concern at this state of affairs has been expressed in various Parliamentary Committee Report's. Despite these Report's there has been little progress made in taking organized sports and games to children in rural India or in involving Panchayats in the promotion of such sport's and game's. The Parliament Standing Committee on Human Resources Development studied a wide range of issues concerning sports in 1998 and emphasized the need for bringing about reform's in sports management and governance in order to make it more dynamic, responsive, responsible and result oriented. Some of the major problem identified by the Committee includes:

#### **Lack of sport's culture in the country**

- The non integration of sport's with the formal education system
- The lack of coordination between all stakeholders
- The inadequacy of sport's infrastructure
- The inadequate participation of women in sport's
- The lack of effective sport's system for talent identification and training and fair selection of teams

There is an immediate need to create a network of basic sport's infrastructure throughout the country and ensure proper access to it to enable more people to participate in sports thereby broadening our base for scouting of talent. The Working Group on Youth Affairs and Sports for the Formulation of Eleventh Five Year Plan also emphasized the need to strengthen the institutional frame work for the development of sports in the country. The development of sports and physical education as an essential ingredient of youth development and the promotion of a sports culture in our country. It also look's at other countries such as Cuba and China, where sport's and youth development, have been integrated in such a manner that they have made great progress in achieving the twin objectives of broad-basing sport's and achieving excellence in individual disciplines.

#### **Conclusion**

Achievement motivation is the tendency to endeavour for success and to choose goal oriented success or failure activities. Achievement motivation is an effective arousal state directing behaviour in an achievement oriented activity cognitively appraised as potentially

satisfying. Motivation inspires an individual to do something. It is that psychophysical condition of the organism which causes an individual to work and strive to fulfil his needs. Anxiety and Motivation are important psychological variables in sports and its need to achieve high level of competition. Without knowledge of these two variables athletes cannot give best in competition. The achievement motivation is one of the important motives, as it leads and directs the individual to ease his tension needs, develop consecutive plans to achieve successive goals and to implement these plans the way that allows more than other calming urgency of the individual needs and his motives. Achievement motivation has its importance to the individual; because it reflects a desire to do the hard work and its ability to deal with ideas and things in an orderly, objective and independent manner

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# 27

## EFFECT OF YOGIC PRACTICES ON SELECTED PSYCHOLOGICAL VARIABLES OF COLLEGE WOMEN STUDENTS

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### ABSTRACT

*The purpose of the study was to find out the effect of Yogic practices on selected psychological variables of college women students. To resolve the purpose of the study 40 Students were randomly selected from Vijayapur Distric. Their age ranged between 18 and 22 years. The selected subjects were randomly divided into two groups consisting of twenty each. No attempt was made to equate the groups. Experimental Group I underwent Yogic practices (YPT) for a period of 16 weeks. Group II acted as control group (CG) and were not engaged in any training programme other than their work. The subjects were free to withdraw their consent incase of feeling any discomfort during the period of their participation but there was no dropout during the study. The psychological variables namely anger, stress and anxiety were selected and anger was tested through Anger inventory, and stress and anxiety were taken though DASS inventory. Pre and post tests were conducted in all the variables. Yogic practices was given to the experimental group for a period of 16 weeks. Dependent t test was used to determine the significant difference between the treatment means. Yogic practice group had significantly decreased in anger, stress and anxiety where as the control group had no significant decrease in all the variables.*

**Keywords:** *yogic practices, anger, stress and anxiety*

### Introduction

Yoga represents a body of practices with an ancient history originally derived from India. In Sanskrit, the word yoga derives from “yuj” meaning to yoke, referring to the discipline of aligning the mind and body for spiritual goals (Lasater J 1997; Woodyard C. 2011). Yogas has also been practiced for potential health benefits, with increasing attention in pop culture to prevent illness and treat disease (Woodyard C. 2011). The definition of yoga encompasses a variety of practices which may include postures (asanas), breathing exercises (pranayama), meditation, mantras, lifestyle changes (e.g., diet, sleep, beliefs, and/or rituals) (Patanjali & Shearer A 2002). Different yoga styles utilize and/or emphasize different practices reflecting the varied practice of yoga in India and the United States.

Now-a-days in all human being stress, depression and anxiety is increasing tremendously. Modern medicine has different drugs for the treatment of mental problems like anxiety and depression, but not that effective and has lots of side effects; therefore, researches are seeking for drugless therapies. Studies suggest that Yoga help to improve the

variables of self-description, psychological status, and the quality of life. Yoga as an intellectual and mental exercise, improve health feeling (Shapiro et. al.2007; Shohani et.al.2018). Furthermore, yoga can improve the psychological conditions for monitoring and managing stress and negative emotions, increase positive emotions, and help mental balance (Shapiro et. al.2007; Shohani et.al.2018). However, despite the popularity and the positive psychological and physiological effects of yogasana and pranayama, it is not widely studied to find how much it really prevents and treats mental ailments. Additionally different limbs of yoga may have different impact on mental disease; need to be investigated in detail. Hence the present study was conducted to investigate the comparative effects of yogasana and pranayama on stress, anxiety, and depression in human adults' yoga practitioners

### Methodolgy

The investigator used pre and post test random group design in this study. This procedure involves dividing the sample into two groups based on random selection. The investigator did not make any attempt to equate the groups in this study. The selected forty subjects were divided into two groups consisting of 20 each such as Experimental Group I and a Control Group. The treatment was administered to the experimental groups for a period of sixteen weeks. At the end of 16th week the post test were administered to both the groups. The psychological variables namely anger, stress and anxiety were selected and anger was tested through Anger inventory and stress and anxiety were tested through DASS inventory. Pre and post tests were conducted in all the variables.

**Table-I : Significance Of Mean Gains & Losses Between Pre And Post Test Scores On Selected Variables Of Yogic Practice Group**

S.No	Variables	Mean		Mean difference	SD(±)		σ DM	't' Ratio
1	Anger	65.50	55.35	10.15	4.50	3.52	1.31	7.72
2	Stress	32.60	22.50	10.10	5.99	4.27	1.46	6.88
3	Anxiety	18.20	11.35	6.85	4.71	2.43	0.89	7.67

An examination of table-II indicates that the obtained 't' ratios were 7.72, 6.88 and 7.67 for anger, stress and anxiety, respectively. The obtained 't' ratios on the selected variables were found to be greater than the required table value of 2.861 at 0.05 level of significance for 19 degrees of freedom. So it was found to be significant. The results of this study showed statistically significant and explained its effects positively.

**Table-II : Significance Of Mean Gains & Losses Between Pre And Post Test Scores On Selected Variables Of Control Group**

S.No	Variables	Mean		Mean difference	SD(±)		σ DM	't' Ratio
		Pre	Post					
1	Anger	65.95	64.80	1.15	5.27	4.84	1.38	0.83
2	Stress	32.80	34.50	1.70	7.66	4.68	1.58	1.07
3	Anxiety	18.85	19.00	0.15	5.30	4.97	1.69	0.08

An examination of table-III indicates that the obtained 't' ratios were 0.83, 1.07 and 0.08, for anger, stress and anxiety respectively. The obtained 't' ratios on the selected variables were found to be lesser than the required table value of 2.861 at 0.05 level of significance for 19 degrees of freedom. So it was found to be insignificant.

### Discussion On The Findings

The prime intention of the researcher was to analyse the effect of yogic practices on selected psychological variables among college women. The yogic practices group had significantly reduced anger, stress and anxiety. But there is no significant change in the selected variables anger, stress and anxiety in the control group. Yoga can help to check any imbalance in muscular development and enable individual both mind and body to function

more efficiently. Practicing yogasanas strengthen s the muscles release physical tension and improves concentration and poise.Yoga makes limbs balanced,strong and relaxed. The standing poses improve balance and muscle flexibility.Yogic practiceec an helppla yersto relax and replenish their energya fterst renuousgames. It also promotescalm,clear thinking even in situations that call for fastreactions.Yoga stretches and strengthens all muscles of the body and brings peace and calm to the mind and spirit (Chandrasekaran, 1999).

**Conclusion**

It was very clear that sixteenweeks of yogic practices produced significant changes in psychological variables anger, stress and anxiety of college women.

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# 28

## IMPACT OF HEALTH, WELLNESS AND SPORTS NUTRITION ON HEALTHY LIFESTYLE

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### ABSTRACT

*Health, wellness and sport nutrition is generally used to mean a healthy balance of the mind, body and spirit, that results in an overall feelings of well-beings. Each of the character act and interact in a way that contributes to our own quality of life. Health, wellness and sport nutrition is an active process of becoming aware of and making choices toward a healthy and fulfilling life. Health, wellness and sport nutrition more than just being free from illness, it is a dynamic process of change and growth. Maintaining optimal level of wellness is absolutely crucial to live a higher quality life.*

**Key words:** Diet, Nutrition, wellness, sleep, health, nutrition etc

### MEANING OF HEALTH AND WELLNESS

Health is the state of complete physical, mental, and social well-being and not merely the absence of disease, or infirmity. Wellness is an active process through which people become aware of, and make choices toward, a more successful existence.

Wellness is more than just physical health; it is holistic and multidimensional. It comprises six dimensions that include physical, intellectual, emotional, environmental, social, and spiritual wellness.

People often use the terms health and wellness interchangeably. Although a person cannot have one and not the other, they are two different concepts that are quite variable, and their meanings are different.

World Health Organization (WHO) defines health as “a state of complete physical, mental, and social well-being and not merely the absence of disease.”

WHO defines wellness as “the optimal state of health of individuals and groups,” and wellness is expressed as “a positive approach to living.”

The primary difference between health and wellness is that health is the goal and wellness is the active process of achieving it. You truly cannot have health without first achieving wellness. Wellness has a direct influence on overall health, which is essential for living a robust, happy, and fulfilled life.

Risk factors are actions or conditions that increase a person’s risk of illness or injury.

Some of the risk factors that can be harmful to good health are as follows:

- Smoking: It is a major risk factor for lung cancer and cardiovascular diseases.
- Drinking alcohol: It can cause liver damage, stroke, heart diseases, and cancer.
- Unprotected sex: It spreads sexually transmitted diseases including human immunodeficiency virus (HIV).
- Extreme physical activity/sports: This may lead to broken bones and other types of injuries.

### **DIMENSIONS OF WELLNESS**

Wellness is multidimensional. Therefore it is not made up of just one concept/ idea. The most commonly described sub-dimensions of wellness are;

1. Social wellness
2. Spiritual wellness
3. Intellectual wellness
4. Physical wellness
5. Occupational wellness
6. Emotional wellness
7. Environmental wellness
8. Financial wellness
9. Mental wellness
10. Multicultural wellness

- 1. Social wellness :** It refers to one's ability to interact with people around them. It involves using good communications skills, having meaningful relationships ,respecting yourself and others ,and creating support system that includes family members and friends. Social wellness follows these tents
  - a) It is better contribute to the common welfare of our community than to think only of ourselves.
  - b) Contact and make a specific effort to talk to the people who are supportive in your life.
- 2. Spiritual wellness :** Spiritual wellness includes seeking meaning and purpose in life,pursuing a fulfilling life,and contributing to the spiritual health of others.
  - A spiritual well person will have concrete answers to the questions who am i? and what is meaningful in my life?Also,a spiritual well individual will attain a greater application and wonderment for the world around him or her.
  - Your actions become more consistent with your beliefs and values.
- 3. Intellectual wellness :** It is engaging the individual in creative and stimulating mental activities to expand their knowledge and skills and help them discover the potential for sharing their gifts with others.
  - It's better to stretch and challenge your mind with intellectual and creative pursuits than to become self-satisfied and unproductive.
  - Is involved in intellectual and cultural activities.
  - Is engaged in the exploration of new ideas and understanding.
- 4. Physical wellness :** Physical wellness includes exercising regularly,eating a balanced diet,caring for one's body,and avoiding the use of tobacco,alcohol,and drugs.

Tips to becoming physical well

  - Exercise at least 30 minutes a day.
  - Get consistent and adequate sleep
  - Control your meal portions
  - Recognize early sign of illness
  - Avoid the use of tobacco,alcohol,and other drugs
- 5. Occupational wellness :** It is ability to achive a balance between work and leisure time,addressing workplace.Stress and building relationship with co-workers.it focuses on our search for a calling and involves exploring various carrier options and finding where you fit.

It's better to choose a carrer which is consistent with your personal values,interests,and beliefs than to select one that is unrewarding.

  - Enjoy going to work most day
  - Managable workload at work
  - Talk to your boss and co-worker when problems arise

- 6. Emotional wellness :** Being emotionally well is more than just handling stress. It also involves being alternative to your thoughts, feelings and behaviours, whether positive or negative.  
Tips for becoming emotionally well;
- Spend time with friends and family discussing personal concerns
  - Take on challenges, take risks, and recognize conflict being potentially healthy.
  - Manage your life is personally rewarding ways and taking responsibility for your action.
- 7. Environmental wellness :** Environmental well-being includes trying to live in harmony with the earth by understanding the impact of your interaction with nature and your personal environment and taking actions to protect the world around you.
- Living a life accountable to environmental needs, both in the present and in the long term.
- 8. Financial wellness**
- Financial wellness is an intricate balance of the mental, spiritual and physical aspects of money. This unique combination is an ideal to strive towards in our dealings with money.
  - In order to maintain this balance we must be comfortable with where our money comes from and where our money is going.
  - A financially well individual has an understanding of their financial situation and takes care of it in such a way that they are prepared for any financial changes.
- 9. Mental wellness :** Mental wellness can be influenced by: **Biological factors** ; changes in the central nervous system, medication, illness and family history  
**Social environment**; losses, stress and low economic status  
Mental wellness is promoted through;
- Physical activity
  - Good nutrition
  - Adequate rest and sleep
  - Stress reduction
- Maintaining mental wellness is an essential change, both for us and for those who work and live around us.
- 10. Multi-cultural wellness :** Multi-cultural wellness includes the development of the former elements in a multi-cultural environment, as well as exploring and developing one's identity through race, gender, sexuality, ability etc

### **SPORTS NUTRITION**

Sports nutrition is the practice of maintaining optimum nutrition and diet to support individual athletes in achieving peak performance in physical activity, either recreational exercise or participation in competitive sports.

#### **Purpose**

The purpose of sports nutrition is to support the skills, power, strength, speed, and endurance of athletes. These attributes require physical training and the correct nutrition, including the selection of appropriate types and quality of foods essential to the success of training effects. Individuals who engage in any type of physical activity, from a personal workout to improving general fitness or preparing for a major professional sporting event, can benefit from understanding the role of good nutrition in athletic performance.

#### **Description**

The human body requires certain nutrients in order to stay alive and maintain the functions of the body's organ systems. The essential nutrients required for optimum health include carbohydrates, proteins, fats, vitamins, minerals, and other metabolites as needed.

The specific nutritional recommendations for an individual athlete depend on a number of factors, including the individual's gender, age, overall health status, exercise

level, skill level, and level of commitment to exercise or sport. Although anyone who follows general guidelines for a healthy everyday diet will likely be nutritionally fit for almost any type of exercise or sporting activity, most athletes benefit from consulting a coach, trainer, nutritionist, sports physician, dietician, or other expert about nutrition and dietary requirements before, during, and after a specific physical activity. Many experts believe that the ideal dietary program for an athlete should supply similar nutrients as that of the average person, but with the ability to meet the higher energy requirements demanded by athletic activity.

#### **Diet and nutritional concerns**

The nutritional recommendations for exercise and sports typically fall into three general categories: pre exercise nutrition; during-exercise nutrition; and postexercise nutrition. Nutritionists often suggest carbohydrates as the primary component of pre-exercise meals, with relatively smaller amounts of protein and fat. Carbohydrates provide the energy stores needed for any exercise or sporting event.

Nutrition during exercise according to the ADA should consist primarily of the carbohydrates and electrolytes needed to replace those lost through sweating during the exercise. Sports drinks (e.g., Gatorade) provide balanced electrolytes in a carbohydrate-rich juice; coconut water provides the same electrolytes without added sugars. Both are quick to enhance energy levels. Small amounts of fruit, jams, honey, and whole-grain bread can also be consumed during exercise.

The goal of post-exercise nutrition is to replace nutrients lost during exercise. Recovery nutrition should begin soon, as early as 15 minutes and no later than one hour, after completion of the exercise. Again, foods that provide quick carbohydrates are preferable as a first meal, including sports drinks, smoothies, fruits, and whole-grain bread or crackers. A main meal should include a high-quality source of protein such as turkey; tofu; eggs, lean steak; fresh, lightly cooked vegetables, especially dark leafy greens (e.g., kale, collards, spinach, chard); and carbohydrates such as brown rice or whole-grain pasta.

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**Organizations**

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- *American Dietetic Association, 120 S. Riverside Plaza, Ste. 2000, Chicago, IL, 60606-6995, (800) 877-1600, [knowledge@eatright.org](mailto:knowledge@eatright.org), <http://eatright.org> .*
- *International Society of Sports Nutrition, 600 Pembroke Dr., Woodland Park, CO, 80863, Fax: (719) 687-5184, (866) 740-4776, [issn.sports.nutrition@gmail.com](mailto:issn.sports.nutrition@gmail.com).*

# 29

## THINKING ABOUT TECHNOLOGY IN SPORTS

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### ABSTRACT

*Contemporary various professional sports entities have embraced technology and data to boost sporting quality. However, this development has gone beyond the playing field as technology start to play a larger role in improving business performances in all sports. This paper looks into how technology in sports tracking systems, cf. based on but not totally limited to the case of the sports tracking system, are capable of helping to translate improved sporting performances into enhanced business performances. However, harnessing the increased amounts of data is associated with technical challenges and financial and human resource constraints. In some instances, the context of applying 'big data' in football is still premature. Therefore, the technology and data implementation in professional football needs to undergo a qualification process to secure that the applied data co-exists with a context of competent knowledge-sharing, individual and organizational learning in order to positively develop sporting and business performances.*

### Introduction

In recent days technology has enhanced the accurateness, pleasure and experiences of both athletes and spectators at every sporting event. Sport and exercise science like most areas of life have been affected greatly by technological advancements. It is very much difficult to imagine modern sports and various sub-disciplines of exercise science without technologies. The use of technologies is, without exception, tainted with frustration and ambivalence. Paradoxically, it is the omnipresence of technology that has contributed most to people's inability to fully grasp the scope and depth of its influence and also uncertainty as to what role various technological advancements play in sports. Indeed, the influx of sport technologies has profoundly changed the landscape of sport and exercise science. Importantly, technology has in many ways changed what we think of as the athletic body. Therefore, this paper examines the impact of technology on sport performance, considering the theories of technology and quest for improved performance, types of available sport technologies, the advantages and disadvantages of sport technologies in current day sports. It is recommended that those managing, handling and using sport must be equipped to make wise choices on the type and use of sport technologies that would assist in the correct performance.

In many of the sports there are many decisions which cannot be determined by individual interfaces. So we need to use different types of technologies to determine the decisions perfectly. One of most outstandingly used technology is HAWK-EYE technology. It is used in sports like cricket, tennis, snookers and in some other games. It is a technology where we can determine speed, deviation of ball from actual track etc. Hawk-Eye as the most innovative technology provider in sports broadcasting and is a development that will reinforce the group's presence and influence. It is primarily used by the majority of television networks to track the trajectory of balls in flight.

### **Benefits of this technology**

- a) Hawk-Eye technology helps to take an error-free decision in cricket, lawn tennis, rugby league, football, and baseball etc.
- b) This technology has reduced the criticism of the players and spectators about the decision of the match referee.
- c) By analyzing the movement of the balls through this technology, the umpire can take an error-free decision quickly when the game is going on. With Hawk-Eye Technology, you just don't see this anymore: Hawk-Eye also has its applications in military operations and automobiles

Technology increasingly is playing a most important role in the development of sport and enhances performance in all faces. Thus, applications of technology allow for more effective training, stimulations, management and tracking of athletes, accuracy of results, enhanced spectator viewing, developing performance and preventing injuries, amongst many more functions (Busch, 1998). Technology in sports is a technical means by which athletes attempt to improve their training and competitive surroundings in order to enhance their overall athletic performance. It is thought of as a technical means or instrument utilized to pursue chosen ends. Hence, the paper investigates the impact of technology on sport performance.

### **Theories of Technology and Performance**

Theories of Technology One of the leading philosophers of technology Feenberg, (1999, 2003) outlined theoretical positions regarding technology. In essence, like lenses through which we can see the impact of technology. Depending on which lens it is look through, technological advancements may appear very positive or frighteningly negative. Heidegger (1998) noted that more fundamental criticisms of technology as ideology where technology, far from being the hand-maiden of man, comes full circle to be its master, where technology is sometimes seen to dominate its users by creating dependency and distorting human relations. Thus, the theories include: instrumentalist, determinist, substantivist, critical and dynamics.

### **Critical Theory**

Modern technology is no more neutral than medieval cathedrals or The Great Wall of China; it embodies the values of a particular industrial civilization and especially of its elites. Critical views of technology recognize that, ultimately, technologies should be controlled by us. Feenberg (1999, 2003) advocates moving toward a more critical theory of technology. Critical theory argues that technology is not a thing in the ordinary sense of the term, but an "ambivalent" process of development suspended between different possibilities. This "ambivalence" of technology is distinguished from neutrality by the role it attributes to social values in the design, and not merely the use, of technical systems. On this view, technology is not a destiny but a scene of struggle. It is a social battlefield, or perhaps a better metaphor would be a parliament of things on which civilizational alternatives are debated and decided. A critical theory sees the politics and values associated with technology. So, critical perspectives of the influx of new tennis racket technologies would call for more open debates on the politics of the technique and ask questions such as "Who will have access to this equipment?" "Who decides whether the equipment should be legal or restricted on the professional tour?" and "What will be the longterm effects of new racket technologies on the game?"

### **Types of Sport Technologies**

Technology is altering the face of modern sports, sports psychology and coaching. State-of-the-art technologies are used to optimize performance in sports as diverse as cycling, speed-skating, swimming, golf, skiing, surfing, football/soccer ball, tennis racket and ball, running, facilities and many more. Technology in sport today is found in countless forms with each innovation has potentially positive and beneficial outcomes. Understanding the implications of sport technologies involve basic typology used in classifying, these are

done in six types of sport technologies though not mutually exclusive, in some cases same technologies could fit into multiple categories. The categories include: self-technologies, rehabilitative technologies, landscape technologies, movement technologies, implement technologies and database technologies. While some of the technologies are yet to make an impact on sport, understanding of many types of sport technologies help to obtain a better perspective on which technological options athletes eventually have access to and impact on sport performance.

### **Self -Technologies**

This represents the most apparent and distributing for many people form of technology due to the potential of fundamentally and often permanently alter an athlete's physical or psychological being/make-up. Banned performance-enhancing drugs are the most recognizes of these technologies. Self-technologies encompass other kinds of athletic innovations, of which are also controversial. Others include surgical procedures, prosthetic/bionic limbs, sport psychological interventions and genetic engineering are all classified as self-technologies.

The presence of certain self-technologies in sport may be seen as future such as bionic prostheses (as used by Oscar Pistorius). Scientists working on a muscle-building vaccine derived from engineering genes already recognised the implications of their work for sport. Thus, the generic alteration of athletes or gene doping is a human genome projects to map all the genes in the human body, which can increases the muscle mass. Although it is unclear whether the long-term effects are safe or not.

Under this view, technology is ethically neutral. It is neither good nor bad in itself. Rather, what matters is the end or purpose to which the technology is merely the means. While equipment such as a prosthesis or a wheelchair are fundamental for some persons with a disability to carry out their daily living (Haisma, vanDerwoude, Slam, Bergen & Bussmann, 2006; Pasquina, Bryant, Huang, Roberts, Nelson & Flood, 2006), advances in this technology, such as an energy storing prosthetic foot, make a lower limb amputee's gait faster and more efficient (Brodtkorb, Henriksson, Johanesen-munk & Thidell, 2008).

### **Movement Technologies**

It refers to those devices and procedures that are designed to assess the form and efficiency of an athlete's body. The most common of such include videotape analysis, although there are much more sophisticated instruments that provide detailed computerized information on an athlete's biomechanics. On like the other form of technology movement technologies are often not visible within the competitive arenas. Besides helping to improve an athlete's existing technique, the data yielded by movement techniques may also facilitate conceptual or stylistic shifts that allow the athlete to compete in a mechanically, aesthetically and kinesthetically novel manner. The introduction of technology as profoundly changes the nature of sport and sports participants. The use of high-speed video technology (goal-line technology) wish have change the response to ball that crosses the goal line without officials' presence or sightseeing.

The use of (mini) digital cameras, body-worn sensors, wireless transmission, and mobile computers has revolutionalised the way coaches and sport psychologists interact with individual players and teams. Individual body-worn sensors can yield real-time biometric player data that may inform coaching decisions during a game or may be used to analyze a player progress over time. Warburton and colleagues (2009) reported that interactive video game cycling significantly increased steady-state heart rate and energy expenditure compared to traditional cycling at constant, submaximal workloads; the two forms of cycling (traditional and interactive video game cycling) resulted in similar ratings of perceived exertion.

### **Technology and Quest for Performance**

Sports gear such as clothing and footwear should be user-friendly and include valuable properties such as strength, flexibility, density, thickness, durability, toughness,

resistance to moisture and more importantly cost. Footwear is generally considered more for comfort and injury avoidance rather than performance enhancement, whereas clothing such as the full body suits used in swimming are often claimed to rationalise the competitor's performance times where winning or losing the race is measured in hundredths of a second. Sporting equipment such as the composite tennis racket has been created in order to provide enhanced ball speed, and reduce the potential vibration that can lead to a condition known as tennis elbow (damage to the small blood capillaries in the muscles and ligaments that surround the elbow joint). In other sporting equipment such as the golf club, the overall mass of the club has decreased which is believed to result in a greater achievable distance and possibly a more precise shot. The bicycle has also undergone modern day advances with the development of specialist wheels, pneumatic tyres; break levers and pedals, which are all aimed at increasing stability and rigidity of the bicycle. Prosthetic devices have also been constructed for those athletes with a specific disability. Examples include the springlite prosthesis device created for those athletes deficient of a lower limb, which acts with a 'springboard-like' effect where with each step as the runner strikes the track, the device returns energy and permits running gait. Wheelchair devices used in sporting activities have also become more sophisticated, for example, with sharply slanted back wheels in tennis to allow the player to move swiftly across the court from side to side, these and many more ways technology and quest for performance improved.

#### **Conclusion**

Sports as a special social phenomenon, has become a modern technology accessories. The word of sport is changing because of technology, as technology plays large roles in daily lives, it also play a large role in changing the body. Thus, technology continues to change the way sports are played, how injuries are treated, what kinds of sports are played and enhances performance outcomes. Sporting technologies are man-made means developed to reach human interests or goals in or relating to a particular sport. It is a technical means by which athletes attempt to improve their training and competitive surroundings in order to enhance their overall athletic performance. It is the knowledge and application of using specialised equipment and the latest modern technologies to perform tasks more efficiently. Therefore, coaches and athletes must be aware of sport technologies, and make wise choices about how it affects their performances.

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## RELATIONSHIP BETWEEN SHYNESS AND ANXIETY AMONG HIGH SCHOOL ATHLETES

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### ABSTRACT

*Most people experience shyness from low to high, sometimes it is seen severely, influences the health of individuals, and causes many problems in their occupational, educational, physiological, and psychological lives. Shyness is combined with loneliness, depression, and withdrawal and decreases the self-esteem of the person and feretory feelings that lead to severe anxiety reactions; even some researchers consider it as social anxiety.*

*The purpose of the study is to establish a relationship between shyness and anxiety and to assess the level of shyness and anxiety among high school athletes. To achieve the purpose of the study fifty (N=50) high school athletes of Mangalore city in five different schools were selected. The present study indicates the role of shyness components in both boys and girls athletes. The shyness and anxiety components have direct and indirect influences on high school athletes. We cannot ignore the contribution of the psychological variables both anxiety and shyness components required at optimum level for the athletes for high level performance.*

### INTRODUCTION

The human behaves and thinks in various ways, whether normal or abnormal. Most people experience shyness in their life from low to high, sometimes it is seen severely, influences the health of individuals, and causes many problems in their occupational, educational, physiological, and psychological life. Shyness is combined with loneliness, depression, and withdrawal and decreases the self-esteem of the person and feretory feelings that lead to severe anxiety reactions; even some researchers consider it as social anxiety. Many adolescents, show initial wariness on meeting a stranger, have doubts about one's ability to contribute effectively to social encounters, and believe that others will negatively evaluate one's action/behavior. These patterns of behavior lead to the withdrawal behavior and social anxieties that characterize shyness or social phobia.

During adolescence, shyness often develops due to a fear of being judged in small group settings, leading to social avoidance. According to various statistics, around 40 to 50 percent of people (and, sometimes more) are involved in shyness. Shyness has been defined as discomfort and inhibition in social situations that interfere with obtaining interpersonal or professional aims, and it is anxiety and discomfort in social conditions, particularly those involving evaluations and social withdrawal. Shyness evokes a negative effect, which leads to sadness, unhappiness, and fearfulness, and the tendency to describe oneself as shy-

natured is associated with low global self-esteem and feelings, of low self-worth in several domains of the self.

Physiological manifestations of shyness' may include excessive perspiration, blushing, increased heart and pulse rate, dry mouth, trembling, and butterflies in the stomach. By far, most research studies on shyness are correlation type. They attempt to derive a linkage between various characteristics related to shyness and developmental factors and/or other variables such as consequences of shyness.

Behavioral symptoms may consist of difficulty making eye, contact with- others reluctance to speak, speaking in a low volume that at times may be inaudible attempts to be inauspicious, avoiding social interactions, and difficulty in initiating conversations. Affective symptoms of shyness may include feelings of self-consciousness, embarrassment, insecurity, and feelings of inferiority.

#### **Statement of the Problem**

The purpose of the study is to establish a relationship between shyness and anxiety and to assess the level of shyness and anxiety among high school athletes.

#### **Objectives of the Study**

- To assess the level of shyness or anxiety among high school athletes
- To find out whether athletes in different sports backgrounds differ in Shyness and anxiety.
- To find out the relationship between different domains of shyness and Anxiety

#### **Definition and Explanation of the Terms**

##### **Shyness**

Shyness is a psychological state that causes a person to feel discomfort in social situations in ways that interfere with enjoyment.

##### **Anxiety**

Anxiety is a multi-system response to a perceived threat or danger.

##### **Athletes**

- A person who is good at sports
- A person who competes in track and field events.

#### **METHODOLOGY**

The present study was undertaken to determine the level of shyness and anxiety among high school athletes in Mangalore City. This chapter explains the objectives, sample tools employed, procedure, and statistical techniques used.

Shyness can have negative effects on many areas of an athlete's life. Many shy athletes develop low self-esteem and may lack self-worth. Shy athletes have difficulty making friends and may be so limited that they will not ask for help from teachers or coaches which would set them back in their performance.

#### **Selection of Subjects**

- To achieve the purpose of the study, the investigator has selected male and female high school athletes who represented district-level competitions.
- The data of fifty (n=50) subjects were collected from six schools in Mangalore city

#### **Selection of the Test**

**Shyness questionnaire** : Crozier's Shyness questionnaire

Aim: To assess the shyness level

**Anxiety Questionnaire** : Taylor's Manifest Anxiety Scale

Aim: To find out anxiety level

Equipment: Pen, pad, classroom and questionnaire

**Procedure** : Initially, the athletes were briefed about the study, and consent was taken from them for inclusion in the study. The information on the type of games/sports involved and other details were recorded and later then were given a shyness questionnaire developed by Crozier (1995), whenever they had doubts in understanding statements or questions, such

statements or questions were clarified by researchers. The next day they were given Taylor’s Manifest Anxiety Scale, Nataraj and Nataraj, 1993).

Once both questionnaires were completed, they were scored according to the manual provided by the respective authors. Later a master chart was prepared and all the data were fed into a computer for further analysis.

**Statistical Analysis**

A T-test was applied to find out the different frequencies of various levels of shyness and anxiety. Lastly, to find out the mutual relationship between different domains of shyness and anxiety, a person’s product-moment correlation was applied. SPSS was used for all the statistical analysis.

**ANALYSIS AND INTERPRETATION OF DATA**

The purpose of the study was to analyze the shyness and anxiety levels of high school athletes in Mangalore City. To accomplish the purpose of the study the investigator collected the requisite data from fifty (N=50) students who were studying in five different schools of which 24 male athletes and 26 female athletes, with age groups ranging from 14-16 years.

Shyness and social anxiety are prevalent issues that can impact anyone, regardless of gender. Most of us feel shy or anxious in social situations at some point in our lives This problem can greatly impact some people’s lives and cause significant difficulties. It was hypothesized that there would be a significant difference in shyness scores and anxiety scores. The studies show that there is no significant difference in shyness and anxiety. Only in the physiological component, there is a significant difference.

To get the result, the investigator used two questionnaires: Crosier’s Shyness Questionnaire and Taylor’s Manifest Anxiety Scale. The Shyness Scale contains three domains, (Cognitive, Physiological, Action Oriented Component) which consists of 54 questions the anxiety Scale consists of 40 questions.

**The descriptive statistics of the study variables were formulated below tables.**

**Table No.1 : Descriptive Statistics of Shyness and Anxiety of High School Athletes**

	Minimum	Maximum	Mean	Std. Deviation
ANXI	18.00	48.00	30.7200	7.22535
SHY_COG	12.00	40.00	25.7600	6.98266
SHY_PHY	.00	16.00	6.4600	4.36690
SHY_AC	.00	18.00	9.3200	4.65302
TOTAL	34.00	107.00	72.2600	17.99865

**Note:** Anxi = Anxiety; Shy\_Cog = Shyness Cognitive component; Shy\_Phy = Shyness Physiological component; Shy\_AC = Shyness action-oriented component.

**Table No.2 : Group Statistics of Shyness and Anxiety of High School Athletes**

	SEX	Mean	Std. Deviation
ANXI	Male	29.9167	7.11347
	Female	31.4615	7.38772
SHY_COG	Male	26.6667	7.78888
	Female	24.9231	6.18335
SHY_PHY	Male	7.8333	4.44939
	Female	5.1923	3.95999
SHY_AC	Male	9.8750	4.75772
	Female	8.8077	4.58711
TOTAL	Male	74.2917	18.52021
	Female	70.3846	17.65690

**Note :** Anxi = Anxiety; Shy\_Cog = Shyness Cognitive component; Shy\_Phy = Shyness Physiological component; Shy\_AC = Shyness action oriented component

**Table No.3 : Independent Sample Test**

	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Anxiety	-.752	48	.456
Shyness Cognitive component	.880	48	.383
Shyness Physiological component	2.221	48	.031
Shyness action-oriented component	.807	48	.423
<b>TOTAL</b>	<b>.764</b>	<b>48</b>	<b>.449</b>

The main finding of the study from the above tables infers the following.

1. **Anxiety** : Girls and boys of high school athletes did not differ significantly in their mean anxiety scores. Independent sample test revealed no differences ( $t = 0.752$ ;  $0.456$ ). The mean anxiety scores for boys and girls were 29.92 and 31.46 respectively are statistically the same.
2. **Shyness Cognitive Component** : Independent sample t-test revealed that boys and girls had statistically equal scores (mean = 26.69 and 24.92 respectively), t-value of 0.880 was found to be non-significant at 0.383 level.
3. **Shyness physiological Components** : In this component boys were found to be significantly shy than girls (mean 7.83 and 5.19 respectively). Further t-tests revealed significant differences between these mean scores ( $t=2.221$ ;  $p = 0.031$ ).
4. **Shyness Action Oriented** : In this component independent sample t-test revealed that boys and girls had statistically equal scores (mean=9.87 and 8.80 respectively) t-value of 0.807 was found to be non-significant at 0.423 level.

**Table 4 :Correlation between shyness and anxiety**

		Anxiety
Shyness Cognitive component	Pearson Correlation	<b>.396</b>
	Sig. (2-tailed)	<b>.004</b>
Shyness Physiological component	Pearson Correlation	<b>.209</b>
	Sig. (2-tailed)	<b>.145</b>
Shyness action-oriented component	Pearson Correlation	<b>.734</b>
	Sig. (2-tailed)	<b>.000</b>

From the above table infer in following

Anxiety had a significant relationship with the cognitive domain, action-oriented domain, and total shyness scores. Anxiety was found to be independent of the physiological domain of shyness ( $r=0.209$ ;  $p=0.145$ ) anxiety was found to have a maximum positive relationship with the action-oriented domain ( $r=0.494$ ;  $p=0.000$ ) than the cognitive domain ( $r=0.393$ ;  $p=0.0004$ ).

#### **Summary**

The purpose of the study was to assess shyness and anxiety. To achieve the purpose of the study fifty (N=50) high school athletes of Mangalore city in five different schools were selected.

It was hypothesized that there would be a significant difference in shyness scores and anxiety scores. The study indicates that there is no significant difference in the levels of shyness and anxiety. Only in the physiological component, there is a significant difference.

The investigator used Crozier's shyness questionnaire and Taylor's manifest anxiety scale was administered to know the shyness and anxiety level among the athletes, under the instruction and personal supervision of the investigator.

Data collected for the high school athletes of Mangalore City was analyzed to find out the mean and standard deviation values by using the 't' ratio.

### **Conclusion**

The investigator concludes the study that shyness's physiological components have significant differences. The present study indicates the role of shyness components in both boys and girls athletes. The shyness and anxiety components have direct and indirect influences on high school athletes. We cannot ignore the contribution of the psychological variables both anxiety and shyness components required at optimum level for the athletes for high level performance.

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## OPTIMIZING ATHLETIC PERFORMANCE THROUGH SPORTS NUTRITION: AN OVERVIEW OF NUTRITIONAL NEEDS AND KEY CONSIDERATIONS

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### ABSTRACT

*Sports nutrition is a critical component of athletic performance, focusing on the relationship between nutrition and the human body in the context of exercise science. Proper nutrition plays a vital role in fueling physical activity, supporting recovery and repair processes, and optimizing athletic performance while promoting overall health and wellness. This article provides an overview of the importance of sports nutrition, the basic nutrients required for optimal performance, and the specific nutritional needs for athletes. It emphasizes the role of carbohydrates, proteins, fats, vitamins, minerals, and water in meeting the energy demands of exercise, supporting tissue repair, and maintaining overall health. The article highlights the significance of proper nutrition timing, adequate calorie intake, and hydration for optimal athletic performance. It also discusses the individualized approaches needed to meet the unique nutritional requirements of different types of athletes. By understanding the interconnection between nutrition and exercise, athletes can enhance their performance and achieve their goals while promoting long-term health.*

**Keywords:** *Sports nutrition, athletic performance, nutrients, carbohydrates, proteins, fats, vitamins, minerals, water, calorie intake, hydration, individualized approaches.*

### Introduction

Sports nutrition is a specialized field of study that focuses on the relationship between nutrition and the human body in the context of exercise science. It involves applying nutrition knowledge to develop practical daily eating plans that fuel physical activity, support recovery and repair processes, and optimize athletic performance while promoting overall health and wellness [2]. To understand sports nutrition, one must have a solid understanding of general nutrition and its interconnection with exercise science. It is crucial to recognize the interdependence of physical training and dietary habits in order to achieve optimal performance [3]. The practical application of sports nutrition knowledge is essential for individual athletes participating in any sport or physical activity [4].

### Importance of Sports Nutrition

Sports nutrition is important because athletes constantly challenge their bodies through rigorous training and competitions. To meet the demands of their sport or activity,

athletes require adequate fuel for their bodies on a daily basis [5]. Optimal nutrition, with a specific focus on dietary modifications, is necessary for participating in endurance sports. Developing targeted fitness at an early age, particularly during adolescence, is considered the foundation for leading an active lifestyle, preventing overweight issues, reducing motor deficiencies, and improving overall quality of life [6].

During the final performance, athletes should be well-nourished, uninjured, fit, focused, and ready to compete. Sports nutrition goes beyond achieving weight or body composition goals; it involves understanding the impact of nutrition and eating habits on athletic performance. Sports nutrition experts should provide tailored recommendations to accommodate individual athletes' specific requirements regarding health, sports, nutrient intake, food choices, body weight, and body composition [7].

Proper nutrition is vital for athletes as it provides the energy required to perform physical activities. The food they consume directly affects their strength, training, performance, and recovery. Not only is the type of food important for sports nutrition, but the timing of meals throughout the day also plays a significant role in an athlete's performance and their body's ability to recover after a workout. Athletes need to pay close attention to what, when, and how much they eat or drink prior to a game or match [8].

#### **Basic Nutrients**

Food and beverages consist of six essential nutrients that are vital for the human body. These nutrients are carbohydrates, proteins, fats, vitamins, minerals, and water. The body requires these nutrients for energy production, growth and development of tissues, regulation of body processes, and prevention of deficiency and degenerative diseases. While the body cannot produce these nutrients in sufficient quantities on its own, they can be obtained through proper nutrition [11].

**Carbohydrates:** Carbohydrates are stored in the body as glycogen, which serves as a source of energy during physical activity. Carbohydrates are necessary to meet the energy demands of exercise, maintain blood glucose levels, and replenish muscle glycogen stores. During sub-maximal exercise, carbohydrates in the body are the primary source of fuel [12].

**Proteins:** Proteins are essential for nutrient transfer in the blood, support of connective tissues, and repair of tissues in response to exercise [4].

**Fats:** Fats are primarily used as a fuel source during low to moderate intensity exercise. They also contribute to the structure of cell membranes, hormone production, nerve lining, and absorption of fat-soluble vitamins [4].

**Vitamins and Minerals:** Vitamins are involved in a wide variety of bodily functions and help maintain overall health. Minerals play a role in structural development of tissues and regulation of bodily processes [13].

**Water:** Water is essential for the human body and is required for various functions. It regulates body temperature, lubricates joints, transports nutrients to active tissues, cushions and protects vital organs, aids digestion, and helps eliminate waste products [1].

#### **Nutritional Needs for Athletic Performance**

To achieve peak athletic performance, athletes need to ensure sufficient calorie intake, proper hydration, and appropriate timing of meals. It is crucial to address the common misconceptions and misinformation surrounding sports nutrition for young athletes. Proper nutrition not only contributes to their athletic success but also supports their growth, development, and overall health [4].

The science of nutrition in relation to sports performance has progressed from empirical studies to direct investigations of the physiological basis for specific nutritional demands during physical exercise [9]. Sports nutrition plays a crucial role in supporting training programs, and dietary intake must be adjusted according to changes in the training regime. Poor nutrition can lead to injury, fatigue, and poor recovery, all of which can hinder an athlete's performance [14].

According to the American Dietetic Association, Dietitians of Canada, and the American College of Sports Medicine, optimal nutrition enhances physical activity, athletic performance, and recovery from exercise. The appropriate selection of foods, timing of intake, and supplement choices are critical for optimal health and exercise performance [5].

Different types of athletes have specific nutritional requirements. For strength and power athletes, nutrition plays a vital role in enhancing power, body weight management, resistance training, and muscle growth. The timing of nutrient intake is crucial to maximize fueling and recovery objectives, as well as meeting pre-competition body mass requirements. Carbohydrate availability and intake are essential for high-intensity performance, and protein intake influences post-exercise recovery and muscle adaptation [15] [16].

Individualized approaches are necessary to meet the nutritional needs of athletes. Training for power sports involves diverse routines, each placing unique physiological demands on the athlete. Nutritional strategies should support general training needs, tailored to specific training phases and the demands of competition. Energy intake must be sufficient to support recovery and adaptation for athletes with high training intensities and volumes. Adequate carbohydrate intake is crucial to maintain muscle glycogen levels, and aggressive nutritional recovery strategies are required to optimize muscle glycogen resynthesis due to demanding competition schedules [17].

Carbohydrate intake for athletes should ensure adequate carbohydrate substrate for the muscles and central nervous system

#### **Fuel for Exercise**

When it comes to fueling exercise, carbohydrates play a crucial role. During endurance exercises, the primary fuel sources for skeletal muscle tissue are carbohydrates and fats [20]. The contribution of these fuel sources depends on the intensity and duration of the exercise. Carbohydrate availability is particularly important for endurance performance and capacity. Consuming carbohydrates during prolonged moderate-to-high intensity exercise (lasting more than two hours) has been shown to improve endurance performance [21].

During championship seasons, athletes can benefit significantly from strategies that enhance performance, such as intra and extracellular buffering agents. However, more research is needed to understand the effects of these agents on different power sports that have varying body compositions, activity levels, and weight requirements. It is important to continuously adjust and adapt training, competition, and nutrition strategies based on individual needs and desired physiological adaptations [17].

Maintaining adequate muscle glycogen levels is crucial for high-intensity performance. Therefore, emphasis should be placed on carbohydrate intake during both training and competition phases in power sports. A diverse nutritional strategy is necessary to meet the overall training needs. Additionally, optimizing muscle glycogen resynthesis through aggressive nutritional recovery strategies is important for power sports with demanding competition schedules [16].

To ensure sufficient carbohydrate availability, athletes should consider their total daily intake as well as the timing of carbohydrate consumption in relation to exercise. Consuming carbohydrates in the hours or days before exercise can enhance carbohydrate availability during the activity. Carbohydrate intake during exercise should be adjusted based on the duration and intensity of the event. Small amounts of carbohydrates, including mouth-rinsing with carbohydrate-rich fluids, can improve performance through their effects on the central nervous system. For longer duration sports, a target intake of 30-60 grams of carbohydrates per hour is suitable, while events lasting more than 2.5 hours may benefit from higher intake of up to 90 grams per hour. Special carbohydrate mixtures can enhance absorption at high rates. Athletes may also experiment with different strategies, such as "train-low" approaches, to optimize training adaptations [16].

When it comes to protein intake, athletes' needs depend on the type of activity they engage in. Those aiming to gain muscle mass and strength generally require higher protein intake compared to endurance-trained athletes [21]. Various studies have examined the effects of animal and plant-based protein sources on sports performance. Some commercial sports nutrition products now combine dairy protein and soy protein to provide a mixture of proteins. The potential benefits of such combinations are being explored, and the supplement industry is actively targeting this growing market [22].

There is a lack of scientific evidence suggesting that protein intake within the range of 1.4-2.0 grams per kilogram of body weight per day is unhealthy for athletes. In fact, inadequate protein intake can lead to slower recovery and hinder training adaptations [23]. Protein supplements or ergogenic aids can be useful in ensuring athletes meet their protein needs conveniently. However, consuming excessive protein beyond daily requirements does not lead to additional gains in strength and muscle mass. Recent research has focused on understanding the effects of different types of protein and biologically active subtypes and peptides on physiological, hormonal, and immunological responses to training. Timing of protein intake may also play a role in optimizing protein synthesis after exercise. It is important to recognize that athletes do require higher protein intake than sedentary individuals, and incorporating various types of protein into the diet can have ergogenic value [25] [27].

According to the International Society of Sports Nutrition (ISSN), exercising individuals require approximately 1.4 to 2.0 grams of protein per kilogram of body weight per day, which is higher than the recommended dietary allowance for sedentary individuals [28]. Studies have shown that the addition of protein and branched-chain amino acids (BCAAs) before or after resistance training can enhance protein synthesis and lean mass gains, particularly in untrained populations. However, additional gains are not observed when supplements only contain protein, unless they include other nutrients like creatine monohydrate [29].

Apart from understanding the role of nutrition in exercise, other factors can significantly impact an athlete's performance. Failing to meet overall nutritional needs or provide specific nutritional support during exercise can negatively affect performance and hinder training and recovery [30]. For Muslim athletes who observe fasting during Ramadan, it is important to capitalize on overnight opportunities to consume adequate nutrients that can enhance performance, adaptation, and recovery. Adjustments to exercise and nutrition plans should be made to accommodate the nutritional needs of these athletes [31].

Weight loss diets, food selection, and frequent weight fluctuations among athletes in weight class and leanness sports have long been areas of concern. However, the extent of the problem and the effects on health and performance are still being studied [32].

Resistance exercise has shown numerous benefits, including reversing muscle loss, increasing resting metabolic rate, reducing fat, improving cardiovascular health, and enhancing mental health. Inactive adults experience a decline in muscle mass as they age, leading to reduced resting metabolic rate and increased fat accumulation. Resistance exercise, particularly when combined with a high-protein diet and calorie restriction, can help counteract these effects and promote lean body weight, reduce blood pressure, and improve body composition [33][34].

Assessing and promoting exercise and physical activity can have significant benefits across various populations. Numerous studies have shown that exercise and physical activity are associated with improved quality of life and health outcomes. Therefore, it is important to assess and encourage exercise and physical activity to promote overall well-being [34].

**Ergogenic Aid**

An ergogenic aid refers to various techniques, devices, practices, methods, or techniques that can enhance exercise performance and improve training adaptations. These aids help individuals tolerate intense training, recover faster, prevent injuries, and maintain overall health during rigorous physical activity. Some studies have shown that supplements can significantly enhance exercise performance, enabling athletes to run faster, lift heavier weights, or perform more work during exercise tasks. Additionally, ergogenic aids can prepare athletes for optimal performance and aid in recovery from exercise, making them an important consideration [34].

One widely used ergogenic aid is creatine monohydrate, which can quickly increase muscle creatine stores. To achieve this, a common approach is to consume 0.3 grams per kilogram of body weight per day for at least three days, followed by a maintenance dose of 3-5 grams per day [35]. Creatine products are available as dietary supplements and are regulated by the US Food and Drug Administration. The Dietary Supplement Health and Education Act (DSHEA), signed into law in 1994, allows manufacturers to make structure-function claims for dietary supplements while strictly prohibiting disease claims [36].

Testosterone and growth hormone are two primary hormones in the body that promote muscle mass gains (anabolism), strength, and reduce muscle breakdown (catabolism) and body fat mass [37]. Testosterone also contributes to male sex characteristics. In certain cases, low doses of anabolic steroids may be prescribed by doctors to prevent lean weight loss in individuals with specific diseases or illnesses [38]. However, it is important to note that the use of anabolic steroids by athletes in large doses to enhance training adjustments, increase muscle mass, or aid in recovery is prohibited in most sports organizations. Anabolic steroid abuse can lead to various potentially life-threatening side effects, such as liver and hormonal dysfunction, high cholesterol, increased cardiovascular disease risk, behavioral changes (e.g., steroid rage), and mood swings [40]. Therefore, the use of anabolic steroids should be strictly avoided unless prescribed by a physician for medical reasons [41].

**Conclusion**

Diet plays a crucial role in athletic performance, and achieving an optimal sports diet requires balance. Athletes must fuel their bodies with appropriate nutrition to meet energy requirements during competition, training, and recovery. Failing to meet these nutritional needs can lead to poor performance and health issues. When used within established guidelines, nutritional supplements are safe, effective, and ethical. Creatine monohydrate supplementation, supported by numerous studies, has been shown to improve anaerobic capacity, strength, and lean body mass when combined with training. However, it is important to be aware of sports-specific variations in dietary practices and avoid falling for false beliefs or market-driven fads. Educating athletes about proper nutrition and dispelling fears of consuming prohibited foods during competitions is vital to ensure optimal performance. The future of nutritional supplementation holds promise in areas such as transport mechanisms, improved muscle retention, and treatment of various clinical conditions

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# 32

## THE ETHICS OF USING ENGINEERING DISCIPLINES TO ENHANCE ATHLETIC PERFORMANCE –A STUDY

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### ABSTRACT

*Engineering, science and technology are used extensively in sports - from equipment design and increasing athletic performance, safety, health benefits and enjoyment, to preventing injury and assuring equity and longevity in sports. Yet for some individuals, sports and recreation may be associated with the word "fun", while science, math and engineering may be equated with the words "hard" or "difficult".*

**Keywords:** *Ethics, fairness, human enhancement technologies, regulation.*

### Introduction

Humans have used tools and technology to enhance the things we do. In sports, it is without doubt that engineering and technology have played an important role not only in improving the performance of an athlete, but also in making sports more entertaining, yet safe. There are huge numbers of technology being applied in various sports. Hence, to name a few, we have categorised the technologies applied in sports into four distinctive engineering disciplines, namely materials engineering, computational modelling, instrumentation, as well as design and ergonomics.

Sports engineering can be considered as a new engineering discipline. It bridges the gap between two distinctive fields: sport science and engineering. Sports engineers are responsible in designing and building new equipment based on athlete's demands, besides measuring the performance of the athlete, the equipment itself, as well as their interaction. It is without doubt that engineering and technology have played an important role not only in improving the performance of an athlete, but also in making sports more entertaining and safe.

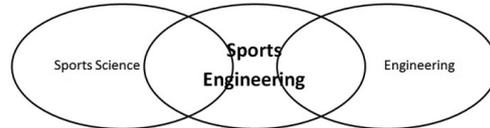
In 1998 Professor Steve Haake set up the International Sports Engineering Association (ISEA), establishing Sports Engineering as a recognised academic discipline. Despite the ISEA now being over 15 years old, the question 'what is sports engineering?' still gets asked.

1. **Sports** = A 'winnable' activity which requires a physical intervention
2. **Engineering** = Technical application of maths and physics to solve problems

Sports engineering can be thought of as the technical application of maths and physics to solve sporting problems. These might include: designing equipment, building facilities, analysing athlete performance, regulating standards, ensuring safety requirements are met, developing coaching tools, etc.

Many of our members come from a mechanical engineering background, but Sports Engineering is not limited to this field and can often also be linked to disciplines such as physics, mathematics, biomechanics, computer science and aeronautical engineering to name a few. The common factor is that all of our members are applying their research skills and background knowledge in the world of sport.

People often get confused between sport scientists and sports engineers. Whilst there is often a lot of cross over, a somewhat simplified explanation is that a sport scientist is interested what is going on inside the athlete – how much oxygen they are using, which muscles are working the most etc. whereas as sports engineers, we are interested in the external factors – i.e. how the athlete may interact with the equipment or the environment. An obvious overlap comes in biomechanics where sports engineers develop motion capture systems to quantify an athlete’s movement; this data is then interpreted by sports scientists to fully understand the athlete’s performance.



### **Materials engineering**

Materials engineering in sports includes the development of new textile materials that are used in sportswear, invention of new materials to be used in sports equipment and development of new materials for sports playing surface. Advances in textile for swimsuit are an example of textile engineering in sports that has produced significant impact on athlete’s performance. Early advances in swimsuit design were to make the swimsuit as small as possible to reduce drag. Then, nylon was invented in 1950’s, which replaced the conventional woollen fabric that tends to absorb water during the race. The introduction of Lycra in 1980’s enabled suits to be cheaper, better fitting and more comfortable to wear.

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### **1. Sports equipment product design and testing**

We’ve worked with a number of sports equipment manufacturers to help redesign or test new sports equipment. Using computer aided design (CAD) skills, 3D laser scanners and expert manufacturing knowledge we’ve also helped build equipment that can be used in the sporting environment. Some examples of products we have been directly involved in are:

- Planet X Bikes – carbon fibre tri-bar handlebar
- STRI – Golf green ‘Trueness Meter’
- ZEN Oracle – Golf putter design
- Golfbone Europe – T-bone carrying support



**Figure 1 – Design and analysis of Planet X tri-bars and Zen Oracle golf putter.**

## 2. Analysis and simulation of equipment or athletes

Computers play a big part in our work, modern techniques allow us to look at how structures (such as tennis racket frames) bend and vibrate (finite element analysis, FEA) and also how air and water flow around athletes and equipment (computational fluid dynamics, CFD). These new tools make it possible to simulate how products perform in the real world and assess how changes in design may affect the sport. The changes we make may be to improve performance or to ensure regulations are upheld. Some examples of the sports we've worked in and the clients we've worked with are:

- Tennis – ITF and Prince – FEA analysis of ball interaction and racket performance
- Cycling – CFD of the cyclist, bike or equipment
- Golf – Ping – characterising performance of clubs or golf balls
- Football – adidas – Football trajectory simulation

## 3. Human movement analysis

Innovation Partner; supporting Team GB's quest for medals at this summer's Olympics and beyond. Some of the work we do in sport also transfers over to health related applications. Some of the examples of the work we do in this area are:

- ❖ Gymnastics, Boxing, Diving – Bespoke motion capture systems and coaching software
- ❖ Second Lives for the Third Age – Development of a virtual environment to allow older or less active users to control an avatar with rehabilitation benefits.
- ❖ Smartfloor Field Lab – Interactive floor space allowing balance to be assessed.
- ❖ SuPPORT 4 All – Developing a novel solution for safer breast radiotherapy.

### The Impact of Engineering in Sports

Humans have used tools and technology to enhance the things we do. In sports, it is without doubt that engineering and technology have played an important role not only in improving the performance of an athlete, but also in making sports more entertaining, yet safe. There are huge numbers of technology being applied in various sports. Hence, to name a few, we have categorised the technologies applied in sports into four distinctive engineering disciplines, namely materials engineering, computational modelling, instrumentation, as well as design and ergonomics.

#### (i). Materials engineering

Materials engineering in sports includes the development of new textile materials that are used in sportswear, invention of new materials to be used in sports equipment and development of new materials for sports playing surface. Advances in textile for swimsuit are an example of textile engineering in sports that has produced significant impact on athlete's performance. Early advances in swimsuit design were to make the swimsuit as small as possible to reduce drag. Then, nylon was invented in 1950's, which replaced the conventional woollen fabric that tends to absorb water during the race.

#### (ii). Computational modelling

Computational modelling is commonly used in all engineering disciplines to represent complex systems. Cycling is a noteworthy example of sports, which has been greatly influenced by CFD. CFD analysis has been used to assess the aerodynamics of the bike, rider and clothing. It is used to model how air flows over an object and return useful values such as drag coefficients and pressure maps. CFD analysis indicates how slight changes in bike design will influence its drag without having to go through the manufacturing process. By using 3D body scanning of the riders on the bikes, CFD analysis can tell coaches how to order cyclists in team events to make full use of the drafting effect. In terms of bike design, each component on the bike can be optimised to reduce the drag coefficient.

#### (iii). Instrumentation

Instrumentation that involves sensors and electronic components also plays a major role in advancing sports to a whole new level, for instance, the video technology that assists official's decisions. A prominent example would be the Hawk-Eye system used in tennis.

Hawk-Eye uses a network of on court cameras to track the trajectory of the ball and use modelling techniques to predict where it lands.

- Hawk-Eye was introduced in 2005 and the system now offers players three challenges to umpire decisions. Controversial line calls can now be resolved by calling up the Hawk-Eye referral system.
- Hawk-Eye decision stands even if it differs from that of the umpires.
- The acceptance by players, officials and spectators for the use a computational Decision Review System indicates that the sport of tennis is one that is constantly evolving, embracing technology and using it to improve the game for all involved.

**(iv). Design and Ergonomics**

The ways of running, biking and skiing for instance, have developed and improve day by day, and so do the athletes' demands of ergonomic clothing. In 2008 Beijing Olympics, the British cycling team won seven of the ten gold medals offered. One of the factors contributing to this remarkable performance by British cyclists was the suit that they were wearing. One notable feature of the suit is the 'hot pants'. Cyclists warm up their muscles before the race. But due to the practicalities of racing, they have to stop about 10 minutes before the race to prepare and be in the right place. This causes their muscles to cool down. The suit that was made of Lycra-like material is equipped with battery-powered strips that heat up the muscles to 35 degree Celsius, thus deliver an increase in power when the race begins.

**The Ethics of Using Engineering to Enhance Athletic Performance**

**(a). Sports engineering VS human enhancement technology**

Human enhancement technologies (HETs) is a term that has been used for a number of years to describe the broad range of methods that may be used to augment one's natural abilities, both for sporting and non-sporting applications. may be in breach of two or more of WADA's guiding criteria for banning a HET.

- ❖ In 2009 the use of polyurethane swimsuits attracted worldwide attention to the advances made by sports engineers in a long and heated debate. FINA's eventual decision to ban the use of full body swimsuits will have lasting repercussions on the sport with potential implications for the wider sports engineering community.

It is apparent that the topic of sports engineering ethics is no longer a hypothetical debate. Similar to so many sports, swimming has tried to balance the benefits of technological advances with tradition and fairness. Sports engineers have clear vested interests in the technological advance of sport and they may be better able to defend their interests through a better understanding of some of the key arguments and concerns about the role of HETs.

**(b). Public dialogs in sports engineering ethics**

In all events, the non-specialist audiences have been encouraged to share their views on a host of topics ranging from technical issues, regulation, ethics and what they want sport to look like in the future. Often, the dialog has been very energetic, free-flowing and with strong, polarized views being expressed. However, these debates have also had the benefit of being grounded in scientific fact and hence some of the more extreme perceptions about the role of technology in sport have been calmed.

**Arguments in favor of sports engineering**

**(i). Banning performance advantage curtails development**

All sports people benefit from sports engineering development. We enjoy playing with high performance equipment that helps us to reach out sporting ambitions. It has been argued that research into sports technology is fundamentally about gaining a performance advantage over a competitor, whether they be a rival athlete or a rival company in the market place. If gaining a performance advantage through technology is severely curtailed by excessive regulation, the principal motivation for undertaking research and development is lost. There is simply no point in embarking on a sports engineering process if the

resulting developments are likely to be banned because they provide a performance advantage.

**(ii). Back to the future**

In the early 1980s during the crossover between the era of the traditional wooden tennis racket and the 'radical' oversize design, arguments about the use of this new technology were probably very similar to those that we hear today. Thirty years later and the idea of playing tennis with a wooden racket is laughable; indeed most young people tend to snigger when they see one. The point is that we quickly normalize to new technology and look back at old technology in amazement at how we ever coped.

**(iii). Only a 'problem' for the elite**

Almost all of the arguments posed against developments in sports engineering are primarily concerned with competitive sport. Indeed, the issues only really tend to come into focus when the elite performer is considered. By definition, the vast majority of people who use sports equipment are not elite, and most will only engage with recreational, non-competitive sport.

**Conclusion**

While sport and recreation may be considered fun to watch or participate in, the science, engineering, mathematics and technology is often not recognized. Yet, the manufacturer's (wholesale) sales of sporting goods equipment, fitness equipment, sports apparel, athletic footwear, As well, as professionals working in sports science and engineering we recognize the pattern of athletic development. While there are training regimes for a sport, there are hours and hours of individual practice, failure (or partial success), observing performance issues, resolution of these issues and perseverance. There is no one "right answer" in athletic development as there may be in a math problem. The young athlete who desires to improve persists. These same characteristics can be key in becoming an engineer or scientist.

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## ANALYSIS OF MOOD PROFILE AMONG SPORTSPERSONS

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### ABSTRACT

*Sport performance is a complex mixture of biomechanical function, emotional factors and training techniques. The measurement of athletes' mood would be valid method in performance time (Bergen and Motel, 2000). Every success achieved by a human in this world is not a sign of individual intellect but that of team work or collective effort, where someone or something would have always played the role of a tutor, where there are heroes who've inspired them, competitors who compete against them and the obstacle in their path. The purpose of this study was to find out the difference in tension, anger, fatigue, depression, confusion, vigour, esteem related affect, mood profile among sports hostels athletes of different sports. One hundred and twenty sports hostels athletes were selected randomly as a subjects for the the study. Data was collected from the athletes who were residing in District Youth Empowerment and Sports of Karnataka state by using the profile of mood state questionnaire. After obtaining the response from all the subjects, the data was tabulated and analyzed, with one way ANOVA and LSD post hoc analysis statistical techniques by using SPSS. There is a significant difference in different aspects of mood profiles among female athletes of different disciplines belonging to sports hostels.*

**Key words:** *Mood, sports person, sports hostel, female athletes, tension, anger, fatigue, depression, confusion, vigour, esteem related affect, mood profile.*

### Introduction

Sports performance is the manner in which sport participation is measured. Sport performance is a complex mixture of biomechanical function, emotional factors and training techniques. Performance in an athletic context has a popular connotation of representing the pursuit of excellence, where an athlete measures his or her performance as a progression toward excellence or achievement.

Some psychological test such as the profile of mood states is used in sport in recent years. This measure a person's mental condition and it is used to show what is called overtraining. It is believed that positive thinking, high concentration on a task, enough self-confidence, high motivation, and the ability to cope with stress is effective in the reduction of injuries. Also, psychological factors such as poor concentration, low motivation, negative thinking, lack of self-confidence, and low ability to deal with stress can lead to the increasing of injuries. Researchers use different methods for the better and more accurate

prediction of the athlete’s performance because athlete’s mood is the resultant of his/her character and situation at any time.

The measurement of athletes’ mood would be valid method in performance time (Bergen and Motel, 2000). Some researchers believe that the use of this test to measure athletes’ psychological characteristics is an appropriate method to prevent the extreme fatigue. Psychological test such as the profile of mood states is used in sport in recent years. This test measures a person’s mental condition. It is believed that positive thinking, high concentration on a task, enough self-confidence, high motivation, and the ability to cope with stress is effective in the reduction of injuries and to perform better.

Every success achieved by a human in this world is not a sign of individual intellect but that of team work or collective effort, where someone or something would have always played the role of a tutor, where there are heroes who've inspired them, competitors who compete against them and the obstacle in their path. Similarly, the rise of an Indian sportsman or team from grassroots levels to glory is mainly because of the collective work and contribution of sports centers. At elite level the performance is affected by many factors, but the psychological aspect edge the rest.

**Purpose of the study**

To purpose of the study was to find out the difference in tension, anger, fatigue, depression, confusion, vigour, esteem related effect of mood profile among sports hostels athletes of different sports.

**Methodology**

One hundred and twenty sports hostels athletes were selected randomly as subjects for the this study. Athletes residing in District Youth Empowerment and Sports hostels of DYES sports hostel, Vidyanagar, Bangalore; and DYES sports hostel, Mysore were considered as subjects for this study. Data for this study was collected by using the profile of mood state questionnaire. The method of answering was explained to them. Subjects were instructed not to take long time to answer the questionnaire. After obtaining the response from all the subjects, the data was tabulated and analyzed, with one way ANOVA and where ever F value found significant LSD post hoc analysis statistical technique was used by using SPSS.

**Findings of the study**

**Table – 1: Summary of One way ANOVA for aspects of mood profile among athletes of hostel athletes**

Variable		Sum of Square	Degree of freedom	Mean Square	F value	Sig.
Tension	Between Groups	389.558	3	129.853	7.617	.000
	Within groups	1977.567	116	17.048		
	Total	2367.125	119			
Anger	Between Groups	250.692	3	83.564	8.489	.000
	Within groups	1141.900	116	9.844		
	Total	1392.592	119			
Fatigue	Between Groups	205.625	3	68.542	8.574	.000
	Within groups	927.300	116	7.994		
	Total	1132.925	119			
Depression	Between Groups	408.025	3	136.008	10.582	.000
	Within groups	1490.967	116	12.853		

	Total	1898.992	119			
Confusion	Between Groups	219.158	3	73.053	10.198	.000
	Within groups	830.967	116	7.164		
	Total	1050.125	119			
Vigour	Between Groups	318.958	3	106.319	9.843	.000
	Within groups	1253.033	116	10.802		
	Total	1571.992	119			
Esteem related affect	Between Groups	72.158	3	24.053	2.289	.082
	Within groups	1218.833	116	10.507		
	Total	1290.992	119			
Mood profile	Between Groups	16175.533	3	5391.84	5.118	.002
	Within Groups	122215.267	116	1053.58		
	Total	138390.800	119			

The above table reveals the F value of among athletes in tension (F=7.617), anger (F=8.489) is fatigue (F=8.489) depression (F=10.582), confusion (F=10.198), vigour (F=9.843), Esteem related affect (F=2.289) and mood profile (F = 2.68). Except esteem related affect rest of the mood profile dimensions showed significant difference.

Since F ratio was found significant in the tension, anger, fatigue, depression, confusion, vigour and mood profile, least significant difference L S D post hoc test was used to indicate the significant variance between the paired mean.

**Table - 2 Summary of post hoc analysis for tension among athletes of hostel athletes**

Group Mean				Mean difference
Athletes	Volleyball players	Basketball players	Hockey players	
14.8333	9.7667			5.06667*
14.8333		11.8333		3.00000*
14.8333			12.0667	2.76667*
	9.7667	11.8333		-2.06667
	9.7667		12.0667	-2.30000*
		11.8333	12.0667	-2.33333

\*Significant at 0.05 levels.

Results in table 2 showed a significant difference in tension between Athletes and Volleyball players, Athletes and Basketball players, Athletes and Hockey players, Volleyball players and Hockey players, Basketball and Volleyball players, but there is no significant difference between Volleyball players and Basketball players, Volleyball players and Hockey players.

**Table - 3 Summary of post hoc analysis for anger among athletes of hostel athletes**

Group Mean				Mean difference
Athletes	Volleyball players	Basketball players	Hockey players	
12.6333	10.0667			2.56667*
12.6333		8.6000		4.03333*
12.6333			10.2667	2.36667*
	10.0667	8.6000		1.46667
	10.0667		10.2667	-2.0000
		8.6000	10.2667	-1.66667*

\*Significant at 0.05 levels.

The results of anger in table 3 indicated a significant difference among sports hostel athletes. The paired mean difference showed a significant difference in anger between Athletes and Volleyball players, Athletes and Basketball players, Athletes and Hockey players, Basketball players and Hockey players, but there is no significant difference between Volleyball players and Basketball players, Volleyball players and Hockey players.

**Table - 4 Summary of post hoc analysis for fatigue among athletes of hostel athletes**

Group Mean				Mean difference
Athletes	Volleyball players	Basketball players	Hockey players	
12.0333	8.8333			3.2000*
12.0333		9.1000		2.9333*
12.0333			9.1000	2.9000*
	8.8333	9.1000		-.2667
	8.8333		9.1000	-.3000
		9.1000	9.1000	-.0333

\*Significant at 0.05 levels.

The results of fatigue in table 4 indicated a significant difference among sports hostel athletes. The paired mean difference showed a significant difference in fatigue between Athletes and Volleyball players, Athletes and Basketball players, Athletes and Hockey players, but there is no significant difference between Volleyball players and Basketball players, Volleyball players and Hockey players, Basketball players and Hockey players.

**Table - 5 Summary of post hoc analysis for depression among athletes of hostel athletes**

Group Mean				Mean difference
Athletes	Volleyball players	Basketball players	Hockey players	
14.5333	11.5000			3.0333*
14.5333		9.4000		5.1333*
14.5333			11.2000	3.3333*
	11.5000	9.4000		2.1000*
	11.5000		11.2000	.3000
		9.4000	11.2000	-1.8000

\*Significant at 0.05 levels.

The results of depression in table 5 indicate a significant difference among sports hostel athletes. The paired mean difference showed a significant difference in depression between Athletes and Volleyball players, Athletes and Basketball players, Athletes and Hockey players, Volleyball players and Basketball players, but there is no significant difference between Volleyball players and Hockey players, Basketball players and Hockey players.

**Table - 6 Summary of post hoc analysis for confusion among athletes of hostel athletes**

Group Mean				Mean Difference
Athletes	Volleyball players	Basketball players	Hockey players	
11.5333	7.8333			3.7000*
11.5333		9.2667		2.2667*
11.5333			8.8667	2.6667*
	7.8333	9.2667		-1.4333*
	7.8333		8.8667	-1.0333
		9.2667	8.8667	.4000

\*Significant at 0.05 levels.

The result of confusion in table 6 indicates a significant difference among sports hostel athletes. The paired mean difference showed a significant difference in confusion between Athletes and Volleyball players, Athletes and Basketball players, Athletes and Hockey players, Volleyball players and Basketball players, but there is no significant difference between Volleyball players and Hockey players, Basketball players and Hockey players.

**Table - 7 Summary of post hoc analysis for vigour among athletes of hostel athletes**

Group Mean				Mean difference
Athletes	Volleyball players	Basketball players	Hockey players	
10.5667	7.6667			2.90000*
10.5667		12.1000		-1.53333
10.5667			9.3000	1.26667
	7.6667	12.1000		-4.43333*
	7.6667		9.3000	-1.63333
		12.1000	9.3000	2.80000*

\*Significant at 0.05 levels.

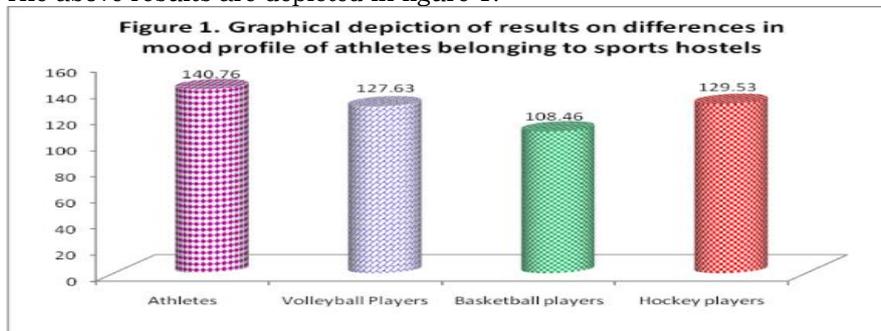
The results of vigour in table 7 indicate a significant difference among sports hostel athletes. The paired mean difference showed a significant difference in vigour between Athletes and Volleyball players, Volleyball players and Basketball players, Basketball players and Hockey players, but there is no significant difference between Athletes and Basketball players, Athletes and Hockey players, Volleyball players and Hockey players.

**Table - 8 Summary of post hoc analysis for mood profile among athletes of hostel athletes**

Group Mean				Meandifference
Athletes	Volleyball players	Basketball players	Hockey players	
140.7667	127.6333			13.13333
140.7667		108.4667		32.30000*
140.7667			129.5333	11.23333
	127.6333	108.4667		19.16667*
	127.6333		129.5333	-1.90000
		108.4667	129.5333	-21.06667*

\*Significant at 0.05 levels.

The results of mood profile in table 8 indicate a significant difference among sports hostel athletes. The paired mean difference showed a significant difference in mood profile between Athletes and Basketball players, Volleyball players and Basketball players, Basketball and Hockey players, but there is no significant difference between athletes and volleyball players, athletes and hockey players, volleyball players and Hockey players. The above results are depicted in figure 1.



### Conclusion

There is significant difference in different aspects of mood profiles among female athletes of different disciplines belonging to sports hostels of Karnataka State . It clearly shows each disciplines should have different characteristics.

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# 34

## THE LEVEL OF MENTAL HEALTH AMONG THE ATHLETES AND NON-ATHLETES

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### **INTRODUCTION:**

The aim of higher sports in this age of competition is to win in international meets or to attain peak performance in competition. And it is on this factor that the coaches try to concentrate. In order to reach the target and accomplish the social expectation; the players also work hard, ignoring their comforts in their daily lives and practice for many hours a day. Unless the players are prepared mentally and psychologically for the contest, they are not able to achieve the desired results. The psychological training has to be provided to the players by the coaches to face stressful situations occurring during the competition. Mental health means the ability to balance in one's daily living. In other words, it is the ability to face and balance the reality of life (Bhatia, 1982). Mental health is a complex phenomenon that depends on a set of familiar personal, psychological, and social variables. Mental health is as important a feature as the physical health of a person to make him complex with a balanced mental disposition of the children to cope with life more effectively and productively. Good mental health depends on the good state of both mind and body. Each exerts a direct influence on the other, but owing to the power of matter, good mental health is of supreme importance according to Hadfield (1952) mental health is the harmonious functioning of the whole personality.

### **PHYSICAL ACTIVITY :**

It is an integral part of a healthy lifestyle and has been associated with many health benefits. A well-documented decline in sports participation occurs during adolescence and since physical activity may track from adolescence to adulthood, there is concern that morbidity and mortality associated with physical inactivity will increase. Determinants of physical activity have been studied in adolescents and include behavioral attributes such as sensation seeking, history of physical activity, involvement in community sports, and sedentary pursuits after school and on weekends (negative association); physical environment factors such as opportunities for exercise; and demographic and biological factors such as sex, age, and ethnicity. Although one would expect sedentary behavior to be at one end of the physical activity continuum, it appears that the determinants of "activity" and of "inactivity" differ substantially.

### **Physical Activity and Mental Health: Current Concepts**

Paluska, Scott A. Schwenk, Thomas L (2000). Physical activity may play an important role in the management of mild-to-moderate mental health diseases, especially depression and anxiety. Although people with depression tend to be less physically active than non-depressed individuals, increased aerobic exercise or strength training has been shown to reduce depressive symptoms significantly. However, habitual physical activity has not been shown to prevent the onset of depression.

### **WELL-BEING**

Well-being means good, excellent, attractive, positive, approaching, qualitative, aesthetic, enjoying, enthusiastic, satisfactory and self-realizing. It may be physical, mental, social, emotional, cultural, spiritual and in a holistic perspective, it is psychological. Therefore

total well-being is termed as psychological where we totally evaluate ourselves in terms of our realistic conditions of life and we try to adjust or to be good in all situations, environmental forces and social and cultural perspectives. According to Aurobindo, the concept of health is essentially related to human existence where life is a goal oriented program and multi-dimensional evolutionary process.

#### **The Influence of Physical Activity on Mental Well-Being**

The case for exercise and health has primarily been made on its impact on diseases such as coronary heart disease, obesity and diabetes. However, there is a very high cost attributed to mental disorders and illness and in the last 15 years there has been increasing research into the role of exercise a) in the treatment of mental health, and b) in improving mental well-being in the general population. There are now several hundred studies and over 30 narrative or meta-analytic reviews of research in this field. These have summarized the potential for exercise as a therapy for clinical or sub clinical depression or anxiety, and the use of physical activity as a means of upgrading life quality through enhanced self-esteem, improved mood states, reduced state and trait anxiety, resilience to stress, or improved sleep. The purpose of this paper is to a) provide an updated view of this literature within the context of public health promotion and b) investigate evidence for physical activity and dietary interactions affecting mental well-being.

#### **Promotion of Mental Health through Coaching Competitive Sports**

Competitive sports can have a negative or positive impact on an athlete's mental health, and an athlete's coach plays a large role in determining this. The coach's goal should be to help athletes realize that developing human potential is equally as important as winning. This article highlights guidelines to assist coaches in instructing and mentoring athletes.

Therefore, according to the review literature it was felt necessary to undertake an integrative study on the mental health between the Athletes and Non-athletes.

#### **Statement of the Problem**

To measure and compare the level of Mental Health among the Athletes and Non-athletes.

#### **Significance and Relevance of the Study**

The importance of this study may be summarized in the following manner:

- This would enable them to understand and to know the level of psychological strengths and weaknesses of athletes with respect to their participation in different sports.

#### **Objectives of the Study**

- To examine the level of Mental Health between the Athletes and Non-athletes.
- To understand the differences in the Mental Health between Athletes and Non-athletes.

#### **Hypothesis of the Study**

- There would be significant difference between in the Mental Health level of Athletes and Non-athletes.

#### **Methodology**

The present investigation pertaining to **“A Comparative Study on Mental Health among Athletes and Non-athletes”** is in the framework of ex-post-facto research. The particulars of samples, tools, collection of data and statistical techniques are given as under;

#### **Sample**

Keeping the objectives in view, appropriate research design is adopted. The sample for the study is drawn from the Athletes and Non-athletes. 30 Athletes and 30 Non-Athletes were administered Mental Health scale to assess the differences in their Mental Health. The sample design is as under.

**Tools**

1. Personal Data Schedule: This is framed to collect information regarding the personal and socio demographic status of the sample.
2. Mental Health scale developed by Dr. Jagadish and Dr. A. K. Srivastava was used in the present study. The inventory contains 54 questions. The responses are scored with the help of manual.

**Collection of Data**

The data were collected from the Athletes and Non-athletes who were administered the Mental Health scale during the sports competitions.

**Statistical Analysis**

The **t-test** was used to assess the significant differences of Mental Health between Athletes and Non-athletes.

**ANALYSIS AND INTERPRETATION OF DATA**

**Table 1**

**MENTAL HEALTH LEVEL OF ATHLETES AND NON-ATHLETES**

Players	M	SD	t-value
Athletes	159.76	10.08	2.44*
Non-Athletes	153.23	10.27	

\*significant at 0.05 level

**Graph.1**

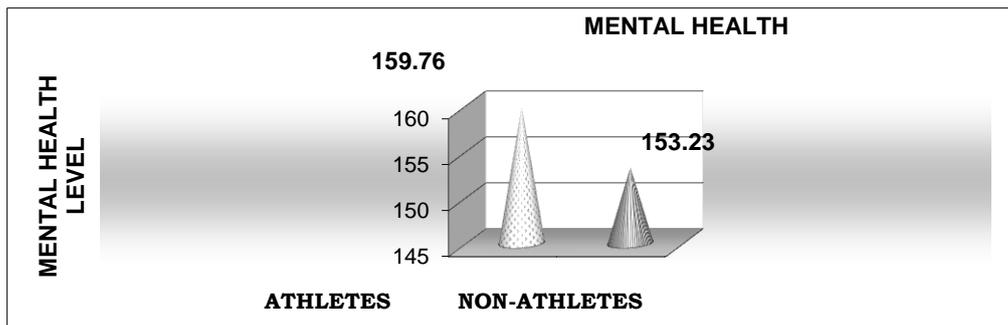


Table no. 1 and graph shows the mean, SD and t-value of Athletes and Non Athletes in relation to their level of mental health. The Mean and SD of Athletes is 159.76 and 10.08 respectively and the mean and SD of Non- Athletes is 153.23 and 10.27 respectively. The mean score of Athletes is higher than the Non- Athletes. It shows that the Athletes have high mental health and Non- Athletes have low mental health. Because Athletes involves in sports and physical activity that may represent resources, that do not only contribute to an increased well-being, but also to an improved self concept as a cognitive representation of Athlete’s mental health-status. When t-value was applied to know the significant difference it was found that obtained t-value is 2.44, which is significant at 0.05 level.

**SUMMARY:**

Mental Health is proved to be a key factor in sports and games. The achievements in games and sports is possible when the players are mentally fit. Similarly, Mental Health level is a psychological factor that influences the performance. The objectives of the study are to measure and compare the level of mental health between the Athletes and Non-athletes. Hence the Athletes and Non-athletes were selected and the Mental Health Inventory is administered on the subjects. The results of the study are analyzed and the following conclusions were drawn.

**CONCLUSIONS :**

The Athletes have high mental health and Non- Athletes have low mental health.

**RECOMMENDATIONS:**

The experience of the present investigator during the period of this study as well as the findings of the present study may serve as a guideline for the researcher in the field of physical education and sports.

- The findings of the present study can be utilized by the HRD (Human Resource Development) experts and Ministry of Sports and Youth Affairs, and Sport Councils while formulating the policies and implementing the same at all levels.
- Cross sectional studies need to be conducted at the inter-university, regional and national levels.
- Results of study are capable of strengthening athletic performance in the form of 'sports package' to be used by coaches and trainers in the field of physical education and sports science.

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## IMPACT OF GLOBALIZATION ON HIGHER EDUCATION: IMPLICATIONS FOR EDUCATIONAL PRACTICES

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### ABSTRACT

*It is expected that globalization potentials dramatic and satisfying change to the higher education systems, of societies, which are comparatively stable in their political, social and institutional makeup, while for the others, it may impend the very stability needed to build well executing higher education system in India. Higher Education system in India has seen a thoughtful transformation since it has opened its market. Globalisation or popularly known as LPG (Liberalisation, Privatisation and Globalisation) is a part of our new economic policy happened in 1991. Under which, wide range of reforms were introduced by government. Some of the objectives of these reforms were aimed at increasing competition, encourage foreign trade, increase foreign capital and bring technology as a platform. In simple words, globalisation is removing physical boundaries among countries and allowing free flow of services, goods and people without any restrictions. Thus, many countries participate to form our globe as one village.*

### Introduction

Post globalisation in India, we have witnessed many changes in various sectors. Especially a big impact in education sector. Human resource in India is turning out to be most important asset since globalisation. Education sector is directly influencing over economy by shaping and training human resources for global needs. In a way globalisation means, achieving standardization of commodities and service across all countries. Education system is ensuring standardization of education system accredited to international standards. Education since globalisation has been transformed as one of the marketable commodity services. Excessive competition and advances in technology has created big demand at international level for bright minds. Global opportunities are becoming a choice for students and they are selecting it based on their interest. The choice of opportunity is determined at their higher education itself. Globalisation has created more openness and transparency which is helping students to make right choice at higher education to determine their future career options at different parts of the world.

### Globalisation and Higher Education

Globalisation in this era is a symbiosis of economic changes and cultural changes. It rests on one hand in the formation of world-wide markets operating in real time, underpinned by the first world-wide system of financial capital and exchange, and growth rates in foreign direct investment far exceeding the growth rate of industrial production. On the other hand it rests on the creation of the first world-wide systems of communications, information, knowledge and culture, so that increasingly the world becomes a single cultural community as Marshall McLuhan (1964) predicted forty years ago. Guy Neave describes globalisation as 'quickenning exchange' which is suggestive of both its economic

and its cultural aspects. In the first quarter of 2002, 24 billion text messages were sent globally; by mid-2006 100 million people in India will subscribe to a mobile phone service; 70% of households in Korea already have broad-band Internet connections. Information and communications technologies (ICTs) are creating new forms of continuously engaged inter-subjective human communities, of unprecedented scale, variety and flexibility. Communication and information are at the heart of global economic and global cultural change, and the junction between them. It is this element above all which constitutes what is new about globalisation.

Higher education and research are not far behind. They are foundational to the sophisticated use of technologies and to culturally complex communities, and like ICTs are formative of the emerging global environment. 'Although many universities still seem to perceive themselves rather as objects of processes of globalisation, they are at the same time also key agents' Research universities are intensively linked within and between the major 'global cities' that together constitute the nodes of a globally networked world. Castells remarks that 'the Internet is in fact the technological medium that allows metropolitan concentration and global networking to proceed simultaneously. The networked economy, tooled by the Internet, is an economy made up of very large, interconnected metropolitan regions. Those regions typically exhibit a high density of higher education. There is a strong positive correlation between the higher education enrolment ratio of a nation or a region, and its global competitive performance. Correspondingly, nations and regions relatively decoupled from the globally networked economy are typified by a low density of higher education.

#### **Review of Literature**

**Indian planning** [1950-51] well perceived by planners and academics in India, Jawaharlal Nehru says the crucial role of higher education is the development and modernization. He quotes 'If all is well with universities, it will be well with the nations'. Followed by this, **UNESCO-27<sup>th</sup>** session [1993] general conference recommends that higher education should include all types of studies, training, research provided by universities and other educational establishments approved by competent authorities. Whereas **Chanana** [2004] in his book "Transformation links between higher and basic education" states higher education as tertiary education which includes all institutions, which impart post-secondary education. Higher education system in India consists of colleges, universities, institutions of national importance [IIT, IIM'S and IISC etc]. Higher educational institutions impart general education in humanities and sciences as well as professional education viz, Engineering, Medicine, Agriculture, management and computer education. A study by **Tilak** [2003] in his article entitled "Higher education and development in Asia" studied importance of role of higher education in development of studies in terms of economic, social, Human development in health, life expectancy. Teaching and research help in absorption, creation and dissemination of knowledge. And **Gupta** [2004] in his article "Higher education in India in the new millennium" reveal that 'higher education has special value in the emerging knowledge society.

**Tiwari and Kumar** [2011] in their article "Higher education and economic development in India-In the backdrop of Globalisation" found that higher education improves quality of labour as a factor of production and permits technological development, further it enhances productivity, quality of jobs, economic growth, life standards of individuals. **Twelfth five-year plan** [2012-2017] also states the importance of higher education that, it is critical for developing a modern economy, a just society and vibrant polity. It equips young people with skills relevant for the labour market and the opportunity for social mobility.

Therefore, we can find here that previous studies have been concentrated on the importance of higher education system. We can find the gap that in this globalized era, education being the most potent instrument of creation, assimilation and transmission of

the knowledge, assumes a central role in the process. Therefore, the present study has been taken to study the impact of globalization on Indian higher education system and also to study the government policies towards the privatization of higher education.

#### **Objectives of the study**

1. To examine the impact of globalization and privatization on the Indian higher education system.
2. To examine challenges in higher education services in India.
3. To study the government policies towards privatization of higher education.

#### **Methodology**

The study is designed as descriptive one. The present study is based on secondary data sources, information from secondary and tertiary sources like articles, journals, books and publications.

#### **Effects Of Globalization on Higher Education**

The concept of globalization has opened up several avenues in India for higher education. Many youths today are dreaming of abroad education with many private universities ready to provide world class education. So to get the accessibility into these institutions globally, India n prime minister Narendra Modi and U.S. President Barack Obama in 2014 signed education pacts. This pact included launching agencies like Global initiative of academic networks [GIAN] and study webs of active learning for young aspiring minds [SWAYAM] to provide a whole host of schemes and measures to boost education in the country. [MOOC] Massive operation online. Courses made available on all kinds of subjects. Also setting up new IIT's with specific resources from U.S.A, faculty exchange programmes and online courses provided some promising provisions, globalization is simply putting 'The space-time compression' which brings together nations, culture, economies, and increasing dependency. With one global world, the aspiring students who were left out and failed to secure seats in India's premier institutions can now go abroad to fulfil their aspirations.

Globalised information and communication technology and available academic resource materials are provided ample opportunities for research and publications on issues of international importance. The envisioned policy reform, foreign collaboration in the university sector and joint ventures in academic activities now exist even in private institutions. Globalisation and privatization have given a boost to higher education in India by opening horizons of progress in every sector.

#### **Negative effects of globalization on higher education**

Flipside of globalization is that it could erode our traditional values and ethos of education. Globalisation is beyond the reach of poor students; since educational level has been elevated monetary requirements are also high. Massive globalization in higher education makes individual to face cultural conflict and issue of Xeno centrisism will come to the forefront.

#### **Challenges In Higher Education Services**

We have to face many challenges in providing a quality and practical based higher education in India

##### **1] More Assessment Than the Solution**

We have prolonged panel discussions and solutions from experts in the education industry. But the real practical and scientific solutions for adopting new techniques are not brought to practicality.

##### **2] Miss-Match in Supply and Demand**

India's gross enrolment rate [GER] is 25% that is 6% below the global average and at least 50% lesser than countries like USA, Australia means the percentage of students enrolling in higher education institutes each year post high school. The government apparently has a vision to increase this to 30% by the year 2020.

India has a large population of teens with close to 100 million in number between 17-19. But each year only 19% enrol for higher education, which translates to 20 million, according to a joint survey by NASSCOM in 2013. That leaves whopping 81% or 80 million who do not have even opportunity to study. And to think only 3.5 million graduates join the work force each year among the 20 million. Such massive gap should be bridged by higher education institutes, here privatization and globalization process are a key factor.

### **3] Low-Quality, Money-Making Institutions Galore**

As a result of that huge gap, people who have no reason to be in the field of education want to capitalize this situation. It's an open secret that the education industry has long lost its noble cause and is more a business. Politicians, realtors, businessmen anybody who wants to mint money open colleges. The infrastructure facilities and faculty quality are compromised. This farce exists everywhere, many have zero intentions of churning out quality graduates.

### **4] India's Youth's Obsession To The Service Industry**

The globalization caused many changes in our country's economy. India saw a gradual shift from manufacturing to a service provider, which was fuelled by IT and BPO industries. Many of these companies have their own training programs which have no relation to student's field of study. These companies are giving false notions to youngsters to enrol in only such courses that cater to them.

### **5] Ineffective Foreign Education Bill**

In September 2013 government of India passed an executive order to allow 400 top universities in the world to set up campuses in India, without local partners. Only Duke university and Georgia Tech started to show interest. Many are not lining up because they aren't allowed to take surplus profits out of country with compulsion of 5 million dollars buy in and maintenance of escrow accounts. Secondly, they have to deal with UGC, which takes a lengthy procedure. The foreign education provides bill can be more effective if stops trying to control and regulate universities and instead be similar to their Singapore and Dubai counterparts. Granting quick permissions, infrastructure and subsidy. These countries are quickly emerging as top-quality higher education hubs for students from around the world.

### **Government Policy Towards Privatisation**

The government claims that autonomy gives greater academic freedom and allows universities to innovate, start courses on self-funding mode. This Niti Aayog prompted policy is a decisive move towards privatization of higher education and will mean the exclusion of economically and socially disadvantaged sections.

The word privatization suggests academic liberty, the government prepared a script to ensure that entire process is guided through bureaucrats and financial advisors. This script is the UGC graded autonomy regulation, notified through union gazette dated 12 February 2018. It asks institutions to fund their own study programmes, establish their own variable emoluments and incentive structures for faculty and office staff and to collaborate with highly ranked institutions, both national and foreign. This regulation introduces a 3-tier system of graded autonomy for universities and colleges, based on their NAAC score and ranks. The GAR works in tandem with other educational policy decisions being taken by Narendra Modi government. The finance minister announced a new funding authority, Higher education financing agency [HEFA] in collaboration with Canara bank [2017 may] has been tasked with the authority of raising funds through public equity and investing them as loans given to higher educational institutions for infrastructural maintenance/upgradation and research facilities. Hence in order to access additional funding for infrastructure from government universities and colleges will now have to mortgage their assets to Escrow accounts operated by the Canara bank under HEFA. The Niti Aayog has also charted out a course of privatization of higher education in its Niti Aayog action agenda 2016-18. It advocates graded autonomy, loan funding, self-financing MOOC based assessment of institutions. Graded autonomy combines with loan funding and the other Niti Aayog recommendations to introduce privatization in all its four forms.

- Privatisation as cost-sharing
- Privatization through corporatization of administration and application of business models.
- Privatization through a voucher system.
- Privatization through the emergence of a non-state education sector.

### **Findings**

The policy framework will inevitably lead to commercialization of curriculum, modularisation of courses through semester system across undergraduate and post graduate with “Cafeteria approach”, already implemented across state and central universities. Students feel encouraged to choose courses that don’t need great investment of time to study. Applied courses are preferred over theoretical courses in the traditional sciences, social sciences and humanities. Teacher should face reduced time of teaching and more of evaluation and exams. The direct pathway from classrooms to jobs in corporate sector will mean that traditional disciplines that derive roots from epochs of enlightenment and scientific revolutions will not survive in this scenario. Despite government emphasis on skill –based education, the economic slowdown and rising unemployment data suggests that very few students will become economic actors after graduation. The devaluation of academics can lead to medium to long term supply crises in education sector itself. Devaluation is a potential recipe for disaster even when it is viewed through a purely market oriented perspective.

Higher education is a prime aspiration among the economically weaker sections, today India’s young population is its potential beneficiary. Privatisation and commercialization are an explosive recipe for dividing youth and deepening the social fault lines of caste, gender and religion.

### **Globalisation, Nation-states and Higher Education**

In policy making, globalisation is associated with the partial de-nationalisation and integration of regulatory systems. It may lead to some blurring of national identities; and to the substitution of a global framework for national frameworks as occurs with trade liberalisation. At this stage though, most economic activity remains nationally-bound. Likewise, in higher education the national policy space remains the main arena and a single worldwide policy setting is a distant prospect.

Globalisation is not either/or in relation to the nation-state. It does not constitute the disappearance of nations, despite some more extreme predictions. Nor are governments legislating themselves out of higher education. Rather they are modernising higher education systems and regulatory frameworks so as to render them more competent for a more global era. But globalisation has changed the terrain on which nation-states are operating in important ways. It has ‘relatives’ national governments and HEIs so that these are no longer the sole custodians of their own horizons of possibility. Both national policy and institutional performance are being referenced to the requirements and measures of informal global standards, to a greater extent than was the case two or three decades ago. The partial liberalisation of international trade and global market competition, for example in the education of foreign students and in on-line programs, encourages direct comparison between national systems; and university rankings have taken this a step further. The process of global referencing is also sustained by worldwide science, research and academic publication; in economies in which knowledge-intensive production and marketing are increasingly integrated on a world scale; and also by tendencies (albeit uneven and incomplete) to convergence and harmonisation in degree structures, recognition and quality assurance. Here global research rankings are perhaps the decisive innovation, combining long-standing systems for codifying and verifying knowledge, with global policy comparison within a single world-wide competition.

Globalisation does have transformative implications for the internal relations between nation-states and their HEIs. In one sense the single worldwide logic of global

rankings is confirmed, in that within global networks universities deal directly with each other in their own right. The model of stand-alone global actors was long practised among individual researchers and scholars and has always shaped the dealings of certain leading universities (mostly in the United States and United Kingdom) with the rest of the world. It is now much more widespread. Global linkages, especially in research and in cross-border education, are facilitating the more autonomous evolution of individual institutions. This process has been encouraged in many nations by policies of corporatisation and partial devolution based on governance by steering from a distance and more plural income raising; a model of provision which reflects informal cross-border norms influenced by practices in the English-speaking nations and the policy templates of the World Bank. No doubt such changes at the national level facilitate an engagement with global trends that provides individual HEIs with more strategic options. Indeed, in many nations corporatisation and devolution are explicitly designed to further the cross-border effectiveness of HEIs, and in some nations HEIs operate on a relatively independent basis in their cross-border dealings.

In sum, there are three kinds of potential global transformation in higher education, with varying implications for nation-states:

1. Global processes of an 'integrationist' type that are distinct from national ones, that once established are difficult for national agents to block or modify, for example the formation of a global market in high value scientific labour, distinguishable from and to some extent over-determining the separate national labour markets;
2. Global systems and relationships that directly engender common changes in different national higher education systems, leading to convergences that again trend towards integration. Examples include cross-border disciplinary networking, the use of English as the principal language of academic exchange, Internet publishing, and the convergence of approaches to PhD training. The question here is not just the existence of cross-border effects but whether these effects lead to homogenization;
3. Parallel reforms by the different autonomous national governments, following common ideas and templates, which tend to produce some convergence and also facilitate inter-connectivity between different national higher education systems. For example, almost everywhere policy and management are being affected by global models of new public management derived largely from higher education practices in the United States and the United Kingdom, though nations vary considerably in the extent to which and manner in which these templates are adopted. Cross border 'parallelisation' is facilitated by homogeneity in a national system and retarded by intra-system diversity.

Changes made under national auspices, type 3 transformations, can lead to a 'tipping point' that facilitates global transformations of the first and second type. Likewise, Enders and de Wert suggest that Europeanization, combining transformations of type 2 and 3, is opening higher education to a larger transformation than has been explicitly envisaged.

#### **Impact of Globalization on Higher Education in India**

The International Journal of Indian Psychology | 25 Globalization is a process, which has affected many areas of human life, one of those being education. In the twentieth century, many developing countries have experienced growth in the educational facilities available to them due to the entry of institutions from the west. Some believe that this process is an invaluable opportunity for the people of the developing countries to raise their skills and standards of education. Others fear that it is merely a modern version of cultural imperialism that will lead to the creation of a universal, ultimately western society. No human activity has remained unaffected by globalization and education is no exception. It brings education to the front lines. In the prevailing discourse, education is expected to be the major tool for incorporation into the 'knowledge society' and the technological economy.

Is it possible, to give general answers to the question of how globalization is affecting educational policy and practice in India and worldwide? We believe that there can be no single answer; national and local economic, political, and cultural changes are

affected by, and actively responding to, globalizing trends within a broad range of patterns. Indeed, because education is one of the central arenas in which these adaptations and responses occur, it will be one of the most myriad of institutional contexts. Hence, the answers developed will require a careful analysis of trends in education, including:

- The currently popular policy “buzz words” (privatization, choice, and decentralization of educational systems) that drive policy formation in education and prevailing research agendas based in rational organization and management theories
- The role of national and international organizations in education, including teacher unions, parent organizations, and social movements.
- The new scholarship on race, class, gender, and the state in education (hence concerns about multiculturalism and the question of identity in education), critical race theory, feminism, post colonialism, diasporas communities and new social movements.

The current globalization of higher education creates both challenges and opportunities. The relationship between universities education and globalization gives special attention. Education will be the answer to many problems raised by globalization. Educational goals are seen to be an area of great concern in the era of globalization. It is here that universities play a crucially important role, to create better society.

#### **Suggestions and Recommendations**

The various policies and implementations have both positive and negative influences on higher education sector. In the context of globalization and privatization, government should play appropriate role, a principle of participatory governance is essential. Government and higher education institutions and private corporate should attract foreign students and make India a hub of knowledge. Quality enhancement and capacity building of students is the need of the hour. Key is a complete reform of higher education to global standards.

#### **Conclusion**

There is now increasing global competition for the best and brightest students, as more and more countries recognize the economic potential of higher education as a service export sector and India is not an exception. The major concern of globalization has been “how to fulfill the national objective of equality?” Interaction is expected to improve the quality of education and performance evaluation at all levels of education which is giving more avenues to the private education and in turn affecting the equity consideration. Changes in Indian education system that pervasive the core appears to remain the same only the notion of change and the rate at which it takes place varies virtually and spatially and in field operations. Globalization of higher education may help India to take advantage of opportunities in the new global environment.

With foresight, skill and determination, today’s leaders of Indian universities have it within their power to craft a different kind of globalization, one which affirms and values cultural difference and encourages greater mobility for all students. The world of higher education in the 21st century can truly be a border-less world of knowledge and ideas which will yield reciprocal benefits for all nations. There is no single, simple path for reaching this new global future, but instead, multiple pathways that lead toward “a world in one nest”.

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# 36

## THE CONCEPT AND IMPORTANCE OF HUMAN RIGHTS IN THE PRESENT SCENARIO

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### ABSTRACT

*“The true civilization is where every man gives to every other every right he claims for himself.” Stating the meaning quotation, Rights are always being there for the strengthening of lives. We cannot ignore system without the presence of Rights. Rights are like gifts from god. Here god may be compared with Nature and since the genesis of human beings, Rights are always come forward. Using of proper justice to the Rights is justified by the Humans. The system has been looked forward to the protection of human rights because these rights are always protected the life and dignity of an individuals. In this context, the present article deals with the information related to Human Rights and its importance in present scenario.*

**Key words:** civilization, Rights, Nature, Human Rights, Justice

### Introduction

“Freedom means the supremacy of human rights everywhere. Our support goes to those who struggle to gain those rights and keep them. Our strength is our unity of purpose. To that high concept there can be no end save victory.” – **Franklin Delano Roosevelt.**

Rights are fundamental in nature. They are absolute to all human beings and other living organisms. ‘Simply stated, a right is a claim of an individual recognized by the society and the state.’<sup>1</sup> Rights are legal and moral entitlements or claims of a person over other fellow beings, over society and over the government. A claim cannot be considered as a right unless it is recognized by the society. Rights are the basic requirement to sustain a democracy. Rights are applicable both for Human beings and animals (living organisms). But human rights are only meant for humans.

To say that there is widespread acceptance of the principle of human rights is not to say that there is complete agreement about the nature and scope of such rights or, indeed, their definition. Among the basic questions that have yet to receive conclusive answers are the following: whether human rights are to be viewed as divine, moral, or legal entitlements; whether they are to be validated by intuition, culture, custom, social contract, principles of distributive justice, or as prerequisites for happiness or the achievement of human dignity; whether they are to be understood as irrevocable or partially revocable; and whether they are to be broad or limited in number and content. Even when the principle of human rights is accepted, there are controversies: whether human rights are a way of privileging narrowly conceived special interests over the common interest; whether they are the political tools of predominantly progressive elites; whether they are a stalking horse for Western economic imperialism; and so forth. It is thus sometimes claimed that there exists no universally agreed upon theory or even understanding of human rights.

### **About Human Rights**

Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination. These are universal rights inherent to all of us, regardless of nationality, sex, national or ethnic origin, color, religion, language or any other status. They range from the most fundamental, the right to life to those that make life worth living, such as the rights to food, education, work, health, and liberty. World Human Rights Day is observed by the international community every year on 10<sup>th</sup> December. It commemorates the day in 1948 the United Nations (UN) General Assembly adopted the Universal Declaration of Human Rights (UDHR). UDHR is a part of the International Bill of Human Rights. Its Headquartered in Geneva, with many regional offices, the Office of the High Commissioner for Human Rights has lead responsibility in the UN system for the promotion and protection of human rights.

Human rights are standards that recognize and protect the dignity of all human beings. Human rights govern how individual human beings live in society and with each other, as well as their relationship with the State and the obligations that the State have towards them.

Human rights law obliges governments to do some things, and prevents them from doing others. Individuals also have responsibilities: in using their human rights, they must respect the rights of others. No government, group or individual person has the right to do anything that violates another's rights.

**Universality and inalienability:** Human rights are universal and inalienable. All people everywhere in the world are entitled to them. No one can voluntarily give them up. Nor can others take them away from him or her.

**Indivisibility:** Human rights are indivisible. Whether civil, political, economic, social or cultural in nature, they are all inherent to the dignity of every human person. Consequently, they all have equal status as rights. There is no such thing as a 'small' right. There is no hierarchy of human rights.

**Inter-dependence and inter-relatedness:** The realization of one right often depends, wholly or in part, upon the realization of others. For instance, the realization of the right to health may depend on the realization of the right to education or of the right to information.

**Equality and non-discrimination:** All individuals are equal as human beings and by virtue of the inherent dignity of each human person. All human beings are entitled to their human rights without discrimination of any kind, such as race, color, sex, ethnicity, age, language, religion, political or other opinion, national or social origin, disability, property, birth or other status as explained by the human rights treaty bodies.

### **Participation and inclusion**

Every person and all peoples are entitled to active, free and meaningful participation in, contribution to, and enjoyment of civil, political, economic, social and cultural development, through which human rights and fundamental freedoms can be realized.

**Accountability and rule of law:** States and other duty-bearers must comply with the legal norms and standards enshrined in human rights instruments. Where they fail to do so, aggrieved rights-holders are entitled to institute proceedings for appropriate redress before a competent court or other adjudicator, in accordance with the rules and procedures provided by law.

### **Status of Human Rights in India**

According to the National Human Right Commission of India, Human Rights as the rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the International Covenants and enforceable by courts in India.

**National Human Rights Commission:**

The National Human Rights Commission (NHRC) of India was established in 1993. The statute under which it is established is the Protection of Human Rights Act (PHRA), 1993. The Act provides for the establishment of State Human Rights Commissions.

**Human Rights as Incorporated in Indian Laws:**

Indian Constitution incorporated several provisions of human rights in Indian Constitution. Part III of Fundamental Rights from Article 14 to 32. Articles 14 to 18 of the Constitution guarantee the right to equality to every citizen of India. Article 19 deals with freedom of speech and expression and Article 21 provides Right to life and liberty.

**What are the Emerging Challenges Regarding Human Rights?**

Violations of Human Rights may be committed by the state knowingly or as a result of the state's negligence.

1. One of the most severe and well-known violations of human rights in recorded history is the Holocaust. Jews, gays, communists, Slavs, and other groups were denied humanity as part of Adolf Hitler's "cleansing the world" agenda.
2. Right to live with dignity: Manual Scavenging is a grave concern. The Indian government has come up with several policies to counter it, but few areas are witnessing cases of manual scavenging till now. The human rights of the Tribals are compromised when they are displaced from the protracted area for the conservation of the animals. The Right to Clean Environment comes under the Right to life under Article 21 of the Indian Constitution. Hike in pollution due to urbanization and industrialization led to continuous violation of this human right.
3. Human rights of women: Women are considered weak in our society and are often denied basic human rights. They are subjected to violence in society whether it is within four walls of the house or at workplace. In Afghanistan, invasive vaginal examinations are forced on women to test "virginity" every time a girl is arrested on a mortality charge.
4. Rights of prisoners: Violations of the most fundamental human rights of the prisoners, including forced labour, physical abuse/torture, police misuse of power, inhumane treatment, custodial rape, poor food quality, a lack of a water system, and other issues noted by the Supreme Court. The Supreme Court of India in the recent past has been very vigilant against encroachments upon the Human Rights of the prisoners.
5. Corruption in Governance: Corruption threatens the rule of law, democracy and human rights, undermines good Governance, fairness and social justice, distorts competition, hinders economic development, and endangers the stability of democratic institutions and moral foundations of society. There have been possibilities of misuse of the provisions of the anti-terror law including the targeting of minorities and using it against political opponents had arisen.

Laws and policies that were passed without adequate public and legislative consultation eroded the rights of human rights defenders and religious minorities. The government selectively and viciously cracked down on religious minorities, and explicit advocacy of hatred by political leaders and public officials towards them was commonplace and went unpunished. Punitive demolitions of Muslim family homes and businesses were carried out with impunity. Peaceful protesters defending minority rights were presented and treated as a threat to public order. Repressive laws including counterterrorism legislation were used rampantly to silence dissent. Authorities intimidated human rights defenders using digital technologies, including unlawful surveillance. Adivasis and marginalized communities including Dalits continued to face violence and entrenched discrimination.

Around 40% of human rights violation cases lodged annually by the National Human Rights Commission (NHRC) in the past three financial years till this 31<sup>st</sup> October (2021) were from Uttar Pradesh.

A human rights violation is the disallowance of the freedom of thought and movement to which all humans legally have a right. While individuals can violate these rights, the leadership or government of civilization most often belittles marginalized persons. This, in turn, places these people in the cycle of poverty and oppression. Individuals who approach life with the attitude that not all human lives are of equal value then perpetuate this cycle.

**Examples can be traced out below points,**

- Forcibly evicting people from their homes (the right to adequate housing)
- Contaminating water, for example, with waste from State-owned facilities (the right to health)
- Failure to ensure a minimum wage sufficient for a decent living (rights at work)
- Failure to prevent starvation in all areas and communities in the country (freedom from hunger).

**Types of Human Rights Violations:**

**Directly or Intentionally:** Violations can either be intentionally performed by the state and or come as a result of the state failing to prevent the violation. When a state engages in human rights violations, various actors can be involved such as police, judges, prosecutors, government officials, and more. The violation can be physically violent in nature, such as police brutality, while rights such as the right to a fair trial can also be violated, where no physical violence is involved.

**Failure by the state to Protect Rights:** It occurs when there's a conflict between individuals or groups within a society. If the state does nothing to intervene and protect vulnerable people and groups, it's participating in the violations. In the US the state failed to protect black Americans when lynching's frequently occurred around the country.

**Current Scenario in India:**

**Total Violations:** The total number of rights' violation cases in India lodged by the NHRC reduced from 89,584 in 2018-19 to 76,628 in 2019-20 and to 74,968 in 2020-21. In 2021-22, till 31<sup>st</sup> October (2021), 64,170 cases were lodged.

**Caste-based Discrimination and Violence:** According to a report released last year, crimes against Dalits increased by 6% from 2009 to 2018 with over 3.91 lakh atrocities being reported.

**Communal and Ethnic Violence:** Many people were attacked by vigilante cow protection groups and many of those affected were minority groups. People from African countries faced racism and discrimination in India.

**Freedom of Association:** The government cancelled the registration of several civil society organizations which specifically prevented them from getting foreign funding, even after the United Nations (UN) claimed it was not in accordance with international law.

**Freedom of Expression:** Several people were arrested under sedition laws for expressing their dissent with government policy and several Indians were arrested for even posting comments on Face book.

**Violence against Women:** Recently released report National Family Health Survey (NFHS) 5, points to rising instances of domestic and sexual violence against women in the state. It shows that married women, between the ages of 18-49, who have ever experienced spousal violence, has more than doubled from 20.6 in 2014-15 to 44.5%.

**Children's Rights:** National Crime Records Bureau (NCRB) data reveals a total of 1,28,531 crimes against children were recorded in India last year (2020), implying that an average of 350 such cases were reported each day during the pandemic

### **Why Human Rights are Important?**

Human rights protect an individual from being abused or discriminated against because everyone should have the equal opportunity to grow physically and intellectually. Individuals can speak out against societal injustice and evil practices prevalent in society. Human rights guarantee that people's fundamental necessities be addressed. Freedom of speech and expression are promoted by human rights. Religious freedom is made possible by human rights. A uniform norm for government accountability is provided by human rights.

Whatever the current attitudes and policies of governments, the reality of popular demands for human rights, including both greater economic justice and greater political freedom, is beyond debate. A deepening and widening concern for the promotion and protection of human rights on all fronts, hastened by the ideal of self-determination in a postcolonial era, is now unmistakably woven into the fabric of contemporary world affairs.

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## TOWARDS ICT-ENABLED LAND GOVERNANCE: A MODEL OF KARNATAKA

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### **Abstract**

*Information and Communication Technology (ICT) is widely viewed as a growth catalyst for any country's socio-economic development. It has the potential to enhance every aspect of the development path if they are appropriately applied and managed. The concept of ICT has been associated with good governance in rural economies like India. Keeping this in mind India has taken many e-initiatives, particularly in its land administration. To transform India into a knowledge economy and society that is enabled by technology, flagship programmes such as Digital India, were launched by India. This encompasses a diverse range, such as the Land Records Modernization Programme. Integrated Land Information Management System (ILIMS), National Generic Document Registration System (NGDRS), and Unique Land Parcel Identification Number (ULPIN) as advanced digital programme of the Computerization of Land Records (CLR), the Strengthening of the Revenue Administration and Updating of Land Records (SRA&ULR). In an attempt to carry out a descriptive analysis, the study explores the connections between various ICT applications and land administration, placing particular emphasis on Karnataka's land governance, notably in terms of its land administration and land records. It continues to look at the link from the principles of good governance.*

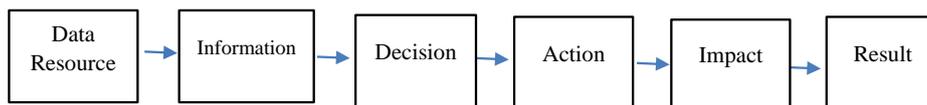
**Keywords:** *India, ICT, Land Administration, Karnataka, & Good Governance*

### **Introduction**

The concept of land encompasses human existence, biological necessities, economic activities, and possibly more than that an enduring sense of security and socio-economic and cultural identity. It is not just a voiceless geographical entity or a piece of the earth's surface. The land is a metaphor for freedom, equality, and justice, which establishes and strengthens everyone's emotional connections to the natural world. But land rights do not exist in a material form; thus, they must be expressed in some way. Information on land rights is frequently documented in something like a land registry and cadastre system, whether held by citizens, households, localities, the state, or businesses and other enterprises, under a formal legal framework. Information about the land, people, and their rights are essential for its successful management. However, the issues related to land are multi-dimensional, incorporating social, technical, economic, institutional, legal, and political factors which are all intertwined but are frequently overlooked. This includes land document forgery, inefficiency in service delivery, multiple plot allocation, inefficient land record storage, and poor land rent collection. In light of this, an effective land administration system assumes increased significance and is essential for all matters relating to land, but especially for administering decisions.

The role of Information and Communication Technology (ICT) is critical in addressing the complexity of issues relating to land and is considered a tool for development. As noted by the Asian Development Bank (ADB), ICT for development isn't just about computers, smartphones, and the internet; it's also about assisting, supporting, and teaching people to use technology to connect them with their communities for communication, learning, and services. This will lead to higher enjoyment, productivity, innovation support, and a push for inclusive growth. This emphasizes ICT's problem-solving capabilities and future development prospects. The increasing use of ICT applications in public service delivery has greatly influenced the way public services are provided and how citizen engagement processes are delivered. (Liu and Yuan, 2015) Primarily, ICT is used to facilitate and support the basic functions of coordination and control of public organizations, functions defined in "the legal-normative set of rules designed to standardize the administrative procedure and the delivery of public services" (Cordella and Tempini, 2015). The e-government strategies (called digital government), within a short period, have evolved rapidly from basic uses of ICT as simple tools to facilitate highly structured administrative work to the integration of ICT throughout government operations (Evans, Olaniyi, 2018). The application of ICT in land governance is an emerging field that aims to improve productivity and service delivery.

**ICT-Information Chain**



**Source:** ICT for Development-e-Gyankosh

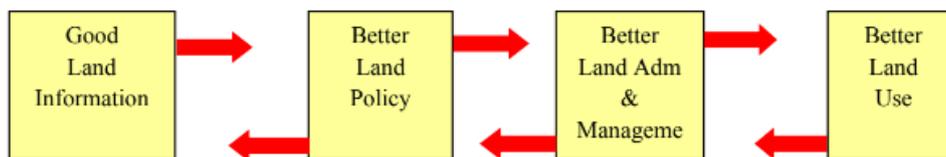
As a result of technological advancement, land management may gain from increased information flow and improved access to service delivery. Information and communication technology adoption is almost regarded as a panacea for land administration. It not only broadens technological prospects but also has enormous potential to improve productivity growth as a capacity builder. With ICT-enabled land administration, there are great prospects for citizen-centric service delivery; better decision-making, execution, and evaluation with cost-effective, consistent, and seamless services. This is inextricably linked to good governance principles and practices, such as the establishment of democratic, responsive, and accountable organisations. Furthermore, technical arrangements have revolutionised the rule of law, equity, and inclusion by infusing openness, efficacy, and efficiency into governance.

As far as India is concerned "land is a vital source of identity, a symbol of social rank, and the foundation for rural power and it is typically associated with strong emotional attachment. With a long history, diverse geography, and pluralistic culture, land governance has evolved in India through communal, imperial, feudal, colonial, and modern systems, gradually moving towards individualization and conclusive titling." Thus, socio-economically the land means "right in or over land lend tenure including the relation of the landlord and tenant and the collection of rents, transfer, and alienation of agricultural land". (Aziz A & Krishna, S. 1997). However, "Land rights are not typically perceived to be a human rights issue. These rights broadly refer to rights to use, control, and transfer a parcel of land. They include rights to occupy, enjoy and use land and resources; restrict or exclude others from the land; transfer, sell, purchase, grant or loan; inherit and bequeath; develop or improve; rent or sublet; and benefit from improved land values or rental income". (FAO, 2002).

Different individuals have varying associations with land. It is in this sense; every harmonious and forward-thinking society needs a good land administration. Nonetheless,

“Land administration is not an easy task in India where different methods exist with a lack of effort at bringing commonality into the system of land records. Ensuring transparency, accountability, and efficiency in the age-old institutional arrangement is difficult. Thus, computerisation is an effort towards land administration reforms that overcomes certain issues pertaining to records management” (Behera, H. C, 2009).

At the same time, a close link between robust land management and sustainable development was made by the Bathurst Declaration on Land Tenure and Cadastral Infrastructures for Sustainable Development (UN-FIG, 1999). The interaction of land information with land policy, land management, and land use is visualized in fig as one of the declaration’s core principles. Digitisation, mobile devices, and customized software can be used to improve the information flow and day-to-day connections between different actors in the land sector, such as local land offices, surveyors, financial institutions issuing mortgages, and private citizens (Peele, 2015).



Source: Siniak and Saltykou-2014

Utilizing ICT strategies and frameworks, India has made substantial efforts to establish a connection between its land governance and its citizens. The country has been now providing accurate, complete, precise, relevant, customized, and well-integrated land-related services with the assistance of ICT-enabled land administration. The political, technological, economic, environmental, and societal landscapes of India are changing as a result of the country’s journey toward e-Governance with prudent ICT policies in land governance. Thus, researching the structure and function of e-Governance in India’s land administration is extremely pertinent in this context.

Long back, during the first three Five Year Plans, the journey towards guaranteeing systematic land administration was begun to maintain accurate land records to promote social justice and development initiatives. The expected results, however, have not been obtained. Subsequently, even during the Sixth Five-Year Plan, efforts were undertaken to modernise land records and speed up survey activities in a timely way (1980-1985). The seventh FYP document also states that because land records serve as the foundation for all land reform initiatives, it is crucial for all states to regularly update their property records. This will unavoidably require measuring unmeasured land scientifically and recording previously unrecorded tenant and sharecropper rights. A few key digital initiatives for the maintenance of land records have been undertaken as a result of this strategy. Despite this, there were numerous issues plaguing India’s land governance. According to Justice V. R. Krishna Ayer, “Every working day of the court hundreds of thousands of persons, many with empty stomachs, wait in different courts of the country from morning till evening for seeking redresses of their land disputes. We have more lawyers than doctors in the country.”

The Supreme Court of India, on the other hand, agreed that “Revenue records are not at all documents of the title because the millions of productive man-hours of the Court lost in time-consuming litigation”. It is worthwhile to mention that the Indian Prime Minister’s Independence Day speech highlighted the massive issue of extensive land disputes. From the Red Fort’s ramparts, the country’s former prime minister, Shri P.V. Narasimha Rao, made the call on 15 August 1991 was that “You must also be aware that there are frequent land disputes and often they assume such violent proportions that the real issues are pushed into the background. And a lot of litigation continues for years, ruining the people. The sources of these conflicts are the land records which are not kept properly. The only method to avoid this is to keep our land records in the villages properly

so that people know about their ownership and proprietary rights. We want to launch this campaign throughout the country so that in all villages proper land records are made available". For efficient land planning and optimum use, there must be clarity and certainty about the title to the land. Various studies also reveal that in India land records are in very poor shape and there is maximum litigation in rural and urban areas about ownership.

It has been estimated by reputed agencies that India loses 1.3 percent of economic growth annually as a result of disputed land titles, which inhibit the supply of capital and credit for agriculture. It is therefore exceedingly important that a fundamental change is brought about in the way land records are maintained. The conversion of the present system of presumptive titles to land into conclusive titles is the only sensible solution to this problem. (Wadhwa, D. C. 2002). Consequently, during the Eighth Five-Year Plan (1992–1997) and the Ninth Five-Year Plan (1997–2002) a commitment was made to pay adequate attention to the National Land Reforms Policy's objectives.

#### **Towards ICT-Enabled Land Records**

##### **1. Computerization of Land Records (CLR)**

To address the inherent issues with the manual system of maintaining and updating land records, the Computerization of Lands Record (CLR) plan, a centrally supported scheme was launched in 1988–1989 and was aimed at (i) to furnish landowners with computerised copies of ownership, crop information, and RoR updates as needed. (ii) to generate a computer-generated certificate of land records' legal validity upon certification by qualified revenue officers. (iii) to guarantee reliability, openness, and fast dispute resolution. (iv) to enable quick and effective information retrieval for decision-making. (v) to achieve affordable and easily reproducible fundamental land record data through dependable and long-lasting record preservation. (vi) installation of a robust land information system to enhance land-based planning and resource use. The government has spent more than Rs 300 crore on computerisation of land records (CLR) in the last 10 years, but incorrect and out-of-date entries have been made without field verification. Despite this fact, the dissemination of these records to the farmers is being done in the traditional offline manner. (Naresh C. Saxena, 2005)

##### **2. Strengthening of Revenue Administration & Updating of Land Records (SRA&ULR)**

The Strengthening of the Revenue Administration & Updating of Land Records (SRA&ULR) programme was introduced to assist the States and Union Territories (UT) with updating and maintaining land records, establishing and improving survey and settlement organisations, and the survey training infrastructure, modernising survey & settlement operations and enhancing the revenue machinery. The Center and the States have split the cost of funding under the SRA&ULR programme 50:50. 100% of Central support is given to the UTs.

##### **3. Comprehensive Modernization of Land Records (CMLR)**

Comprehensive Modernization of Land Records was envisioned as a significant e-governance and system reform endeavor that could be concerned with more than just computerising, updating, and maintaining land records or validating titles. It was intended as a programme that would add value and provide a comprehensive database for planning and decision-making for development planning as well as regulatory activities where there is a need for location-specific information. To make the spatial and non-spatial land-related data for the entire country available as a national enterprise knowledge base for both public and private stakeholders, the systems disconnects and redundancies would be minimised and a better reform model would be re-engineered.

However, other efforts helped with conclusive titling incorporated in the schemes of SRA&ULR and CLR. These operations were primarily intended to increase land administration. The choice of projects was left to the States and UTs, the majority of which did not use the money for the projects for which it was intended by the union administration. No deadline for accomplishing the aim of decisive titles was established given the manner the schemes were constructed. The task remained unfinished in the

majority of the states and no technology choices for surveys were mentioned. Both the monitoring system and the exit mode were not explicitly stated in the current schemes. Furthermore, the CLR, SRA&ULR, and CMLR initiatives did not touch the aspects such as interconnection, Geographic Information System (GIS) mapping, connectivity with banks and treasuries, or registration, the very last of which is a crucial component in maintaining land records. The necessity for an extensive modernization plan that incorporates Land Records and Registration was therefore identified. In line with this, the Union government has launched the National Land Records Modernization Programme (NLRMP).

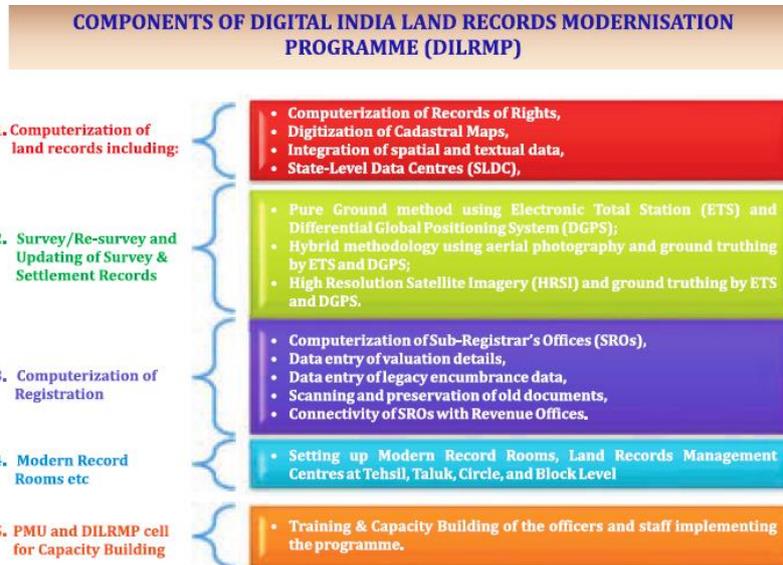
#### **4. National Land Records Modernization Programme (NLRMP)**

To modernise the nation's land records management system in real-time, the National Land Records Modernization Program (NLRMP) was launched in 2008. It is a redesigned programme that combines the two centrally-sponsored initiatives of Computerization of Land Records (CLR) and Strengthening of Revenue Administration and Updating of Land Records (SRA&ULR). The NLRMP's main priorities include (i) To usher in real-time land records, (ii) Automatic mutation (iii) Integration of Textual and Spatial Records (iv) Interconnectivity between land records and registration system (v) Achieving the goal of Integrated Land Information Management System (ILIMS). The NLRMP has been conceptualized as a major system and reform initiative that is concerned not merely with computerization, updating, and maintenance of land records and validation of titles, but also as a programme that will add value and provide a comprehensive database for planning developmental, regulatory and disaster management activities by providing location-specific information, while providing citizen services based on land records data. The NLRMP objectives cannot be understood in isolation from the broader policies of economic and governance reform. The shifts in the policy objectives of computerisation and updating of land records must be seen in the light of the "rightward drift in Indian politics" of the Indian state and its virtual abandonment of the state-led land reform measures. The possibility of radical land reforms appears remote as the policy objective is to provide secure land title and property rights for facilitating the growth of the land". (Nayak, P. 2013)

#### **5. Digital India Land Records Modernization Programme (DILRMP)**

The National Land Records Modernization Programme (NLRMP) has been reconfigured as the Digital India Land Records Modernization Programme (DILRMP) in April 2016. This is 100% central funding and launched with the objective of (i) building on the similarities that already exist in the field of land records across different states, (ii) creating a suitable integrated land information management system across the nation, and (iii) enabling other states to add state-specific needs as they may consider relevant and appropriate.

The key elements of these initiatives are the following: (a) computerization of record of rights; (b) digitization of cadastral maps; (c) integration of record of rights (textual) and cadastral maps (spatial); (d) survey / re-survey; (e) modern record rooms; (f) computer centres at tehsil, subdivision, district and data centre at state level; (g) connectivity between revenue offices; (j) computerization of registration; connectivity between sub-registrar offices and tehsils; and (i) integration of registration and land records.



Source: Department of Land Resources, Ministry of Rural Development

#### 6. Digital India Land Records Modernization Programme (DILRMP-MIS 2.0)

The major goal of the DILRMP-MIS 2.0 initiative is to establish a contemporary, complete and transparent land records management system in the country, to implement the conclusive land-titling system with title assurance, which will be based on four key principles, i.e., a single window, the mirror principle, the curtain principle, and the title insurance principle. Management Information System (MIS) reports such as land usage patterns, revenue-related statistics, etc. The digitized data can be used in land value assessment, preparation of field-level soil health cards and smart cards for farmers to facilitate e-governance and e-banking; easy settlement of compensation claims related to land acquisition and rehabilitation, crop insurance and grants of agricultural subsidies; establishment of community/village resource centres; precision farming, etc.

##### a) Bhunaksha

To facilitate the maintenance of digitised cadastral maps, NIC created the cadastral mapping software named Bhunaksha. Since it meets all of the basic requirements of an official concerning parcel map management, it is intended for authorised officials of States/UTs. The purpose of its application is to support an end-to-end cadastral mapping solution, commencing with digital raster and vector data validation of cadastral maps, their integration with Records of Rights (RoR), and services like mutation, updating, and dissemination of RoR and maps fulfilling the needs of NLRMP projects in G2G and G2C domains. The applications will also encompass all organizational structures and procedures of the land revenue system during development. The main features of this application are

- Desktop, Web, and Mobile Clients
- Deployable on Central Server or Tehsil Server
- Multiple Plot Division
- Various Plot Division Methods
- SLD-Based Map Styling & Symbolology
- Digitization Quality Check
- FMB & ETS Survey Data Composing
- Easy ROR Integration

- Map Printing on Any Scale

**b) National Generic Document Registration System (NGDRS)**

The NGDRS is a unique, cutting-edge software application that NIC developed for the registration system and has been developed with underlying ambitious aspirations such as one nation one software; a generic platform for nationwide property and document registration, enabling property appraisal and online document submission will empower citizens in a single platform for everyone involved in the registration system.

This software programme is adaptable, expandable, changeable, and suitable for the needs of each state in the country. It guarantees openness, the responsibility of the officials who execute the paperwork, and a decrease in the expense, time, and quantity of visits and procedures necessary for the execution of the registration documents. It has already been put into practice in 12 states and put through a pilot test in 3 states serving a population of over 10 crores. More than 25 lakh documents have reportedly already been recorded using this technique, according to the report. A person only needs to visit the office once or twice to finish the registration of a property, as opposed to the previous requirement that he visit eight to nine different offices to complete the registration procedure. A greater emphasis is placed on the Registry Office's integration with other offices when certain information is necessary for the fulfillment of registration deeds. After deeds are registered, information for modifications is automatically transmitted to the relevant agency. The important feature of this initiative is that citizens are eventually assisted in deciding where and what kind of land they should purchase by the availability of transactions involving forbidden properties, such as government land, tribal land, mortgaged land, etc. Once that is done, customers can apply online, pay instantly, and schedule appointments. It is a sophisticated registration process software that enables the automatic transmission of information about high-value property transactions to the Directorate of Income Tax, Ministry of Finance. By incorporating data analytics and blockchain technologies, NGDRS has advanced.

**c) Unique Land Parcel Identification Number (ULPIN)  
(Bhu-Aadhar Number System)**

The Unique Land Parcel Identification Number (ULPIN) is the same as a land parcel's Aadhar number. By using a special approach, the 14-digit number assigned to each piece of land in the nation is derived using the parcels' geo-coordinates. Identifying departments like the Revenue Department, Panchayat, Forest, Registration department, and Survey & Settlement department that deal with land and provide citizens with multifaceted land-related services is one of the main goals. The ULPIN ensures consistency of core data across all departments & agencies of the government worldwide and supports comprehensive information on land and properties. This has been implemented to communicate computerised digital land record data throughout various States and Sectors and to provide a uniform system for allocating a distinct ID to each land parcel across the nation. Since this is a unique identification number, duplication is not possible. It facilitates data sharing on land records across departments, financial organisations, and all related stakeholders. APIs enable smooth cross-departmental validation of land records data. This opens up the possibility of offering citizen services for land records through a single window. Additionally, it ensures that all transactions are unique, that land records are current, and that registration and mutation data are automatically updated. A clause that links all property transactions has been established. It has been put into practice so far in thirteen States and has undergone pilot testing in an additional six States.

**d) Integrated Land Management Information System (ILMIS)**

Has also taken a collaborative effort to digitise the land management system through Integrated Land Management Information System (ILMIS) Project, wherein land-related information is available in a single window, to combine all the procedures and land records database. The objective of this effort to link the land records database with banks, financial institutions, circular rates, Registration Offices, and other sectors is to provide effective and efficient service delivery by the relevant offices. Currently, 283 districts around the nation have already adopted it. According to data, by the end of 2021, significant progress has been made in a variety of programme components, including the computerization of land records in 600811 villages, compared to a total of 656190 villages, the digitization of cadastral maps/FMBs in 1.11 crore, compared to a total of 1.63 crore maps, the computerization of sub-registrar offices in 4883 offices, compared to a total of 5220 offices, and the integration of sub-registrar

**The Journey of Karnataka's ICT-based Land Governance (Land Records)**

The land is not only the most expensive economic asset in Karnataka, but it is also a prerequisite for all anthropogenic activities. Its rural community still accounts for 61 percent of the population, with 55 percent working in agriculture. In Karnataka, "The land is a mother resource giving rise to various other things of economic value". (De' R. & Sen C. 2004). It is also a pioneering state in harvesting ICT for land governance, with its Bhoomi e-governance effort. It is for these reasons that the role of land in the economy and society of Karnataka is not always obvious, but is of great significance. As far as land records of the State are concerned, they include information about the property's borders, ownership chronology, and past appearance. Real land ownership and boundary disputes are the subjects of practically all judicial rulings. The importance of error-free, conflict-proof, and easily available land records has received attention in Karnataka over the years. Digital initiatives like Bhoomi, Kaveri, and Mojini, as well as their integration, play a significant part in this approach.

**Bhoomi**

Bhoomi is an online land records management system with a lot of features. This database was created to provide access to Karnataka land records. The project started in 2001 with the massive challenge of digitising 20 million written hand-land records maintained by Karnataka farmers. This venture was a component of the Computerization of Land Records (CLR) plan, which was funded by the Indian government and backed by the National Information Centre (NIC). The digitalization of 15,913,341 RTCs from 29,527 villages was a notable accomplishment for the state. Computerization of land records has been implemented in nearly all of the villages in the state's thirty districts. The Karnataka Land Revenue Act of 1964 was also amended to recognise the computerised RTCs. With the implementation of the Karnataka Land Revenue (Amendment) Rules, 2002, computer-generated RTCs gained legal status. RTC stands for 'Record of Rights, Tenancy, and Crop Information. It mainly consists of sixteen types of information such as landowner details, land type, area of measurement, type of soil, flood areas, land possession nature, tenancy, liabilities, and cultivated crops. The Bhoomi project's major qualities are remote access, virtual land record updates, Aadhar-enabled biometric verification, secure land record production, and openness in land title changes. Farmers and land-based businesses like real estate, grazing, cow rearing, and sericulture can all earn from the Bhoomi initiative in different ways.

- Real-time RTC is available to farmers.
- RTC serves as a socio-economic credential for farmers.
- It is simple to obtain a loan from a financial institution by presenting RTC.
- It facilitates the resolution of judicial cases.
- It is simple to update and maintain for official purposes.
- It allows users to access materials quickly and easily for a variety of purposes.

- It supports the management of public lands.
- It reminds banks and other financial entities.

### **Kaveri**

A web-based programme developed by the state called Kaveri gives online service to the citizens the interface they need to register documents. It also provides access to information on issues like stamp duty, property guidelines value, data entry for document registration, marriage registration, and other things. In this online system, citizens don't need to visit several government buildings to register or confirm property information. They should instead go to this webpage, where they may obtain all the information and solutions relating to the state's land and holdings.

### **Mojini**

Mojini is a digital platform that enables farmers to obtain copies of some land survey records without having to frequently visit government offices. In addition to requesting a land survey, citizens have access to several other services, including checking the progress of the request for a land survey, the allotment status, and viewing other sketches including the 11E Sketch, Alienation, and Phodi. By making the payment online, one can view and copy revenue maps of the village, as well as copies of Mojini dispute reports, Mojini MIS reports, Survey Department circulars, pre-mutation sketches, land conversion sketches, Haddubasthu, and Thathkal Podi. The mobile number, survey number, or application number of the farmer or applicant may be used to search the records. Through the website, farmers can also apply for a land survey and make payments. Farmers who normally have to make frequent visits to taluk offices to obtain copies of their land records and survey plans are believed to benefit from this relief.

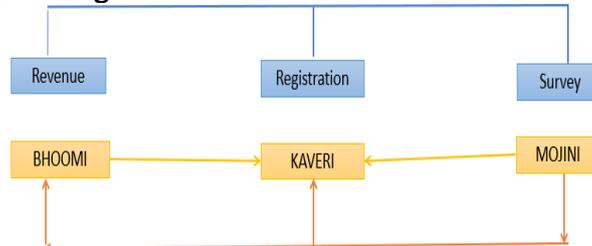
### **Bhoomi-Kaveri Integration**

During the registration process, the Kaveri registration programme uses data from the Bhoomi database for all properties for which RTC information is accessible. The rights can only be transferred by the existing owner, whose information is stored in the Bhoomi database. No transfer of rights is permitted under the Prohibition of Transfer of Certain Land Act (PTCL Act-1978). It also makes it easier to check whether any court orders about specific registered parcels were followed.

### **Bhoomi-Mojini Integration**

Mojini software used by survey departments creates a pre-mutation drawing (PMS/11E Sketch) for measuring and identifying land before registration for the benefit of potential buyers using Bhoomi data. The pre-registration sketch protects the land's potential buyer against future litigation (its extent and placement). Textual data (RTC) and geographical data (11E-Sketch) can be synchronised with Integrated Mutation Podi, and RTC and survey records can be updated at the same time (IMP). Bhoomi data has also been coupled to the Integrated Mutation Podi (IMP), allowing both mutation and podi (a division of land transferred in the survey record) to be completed in one step, guaranteeing that each owner/occupant receives their own RTC.

### **Bhoomi-Kaveri-Mojini Integration**



Source: Conceived, Designed and Developed by Researcher

### **Bhoomi-Land Acquisition**

Bhoomi and land acquisition integration allow for seamless integration between Bhoomi and land acquisition activities, resulting in updated land records, the prevention of incorrect notification because of data volatility, and the avoidance of procedural errors. This integration prohibits the same piece of land from being purchased several times, resulting in payment excess or double compensation.

### **Bhoomi-Bank Integration**

Farmers and bankers faced several difficulties in the loan progression process at banks when using the manual recordkeeping method. Banks were integrated with Bhoomi records to address these challenges, to immediately conduct mutation transactions in Bhoomi based on online requests from Bank branches to add or remove liabilities. Among the benefits of such integration are the following: Credits from all pledged financial institutions are automatically credited. Banks do not need to obtain NOC from all FIs because all encumbrances are stored in Bhoomi records. Cross-lending will be eliminated, saving both time and money. There will be a huge reduction in staff, resulting in fewer lawsuits and more benefits for banks and farmers.

Land reform is a state-led endeavor in India. In most cases, ownership or title to a piece of land in the country is prospective rather than definite. NITI Aayog has prepared a draught model Land Title Act for 2019. Aayog is likewise a proponent of transparent land titles and state-backed ownership. A conclusive title is an unambiguous confirmation of property ownership. It also predicted that digitising land records and implementing 'land titling' will assist India in becoming a \$ 5 trillion economy by 2025. It is also essential that all information about land records management be available through a single window which is possible only through the integration of land-related information across departments, including financial and judicial institutions, and the updating of these records. (Basu, R. (Ed.). 2020). As a result, decisive land titling will be a watershed event, allowing farmers to acquire loans more easily, drastically lowering land-related litigation, permitting transparent land transactions, and streamlining the land acquisition process for infrastructure development. On the other hand, Karnataka has been one of the key players in the IT sector and is renowned as an IT hub for several global corporations worldwide.

### **Conclusion**

Land records contain details regarding the boundaries, ownership history, and previous looks of the land. Practically every legal decision involves issues of actual land ownership and boundary conflicts. Over the years, Karnataka has paid attention to the value of error-free, conflict-proof, and readily accessible land records. Land rights must be stated because they do not exist in a physical form. For effective land management, it is crucial to have a connection to the land, the people living on it, and their legal rights. The citizens of the states now have access to land information and services as a result of the introduction of information and communication technology into the land governance process, which has increased citizen participation in the administrative process. It also contributes to good governance by establishing a structure that is effective, efficient, accountable, and transparent. A stable and secure society and economy are reflected in a well-functioning land records system. Furthermore, Karnataka's Information and Communication Technology initiatives go beyond just computerising, updating, and keeping property documents. Nevertheless, it serves as a comprehensive and trustworthy database for many government entities. The state's land administration has reached a tipping point with real-time land data for its inhabitants. The public is protected from unfair treatment by government officials by having easy access to computerised land data. The automatic mutation is possible thanks to the implementation of land records and the land registration system, which lowers the possibility of illegal property transactions and land disputes.

Karnataka has been working hard to implement a unified land information management system that meets the requirements for absolute land title deeds. It will be a

great milestone in the state's land administration if the state successfully integrates textual and spatial records using innovative information and communication technology. Karnataka, on the other hand, must assure the presence and availability of sufficient physical infrastructures, skilled labour, and resources to successfully implement ICT in the future. Thus, the application and the journey of ICT in land governance of the country particularly in Karnataka goes beyond government email and websites; it also encompasses more than just online service delivery. It is not simply about having access to government data online or making payments with a computer also meets the basic tenets of Digital India i.e., transforming India into a digitally empowered society and knowledge economy. It will influence how people interact with governments just as much as it reflects how people interact with one another. Undoubtedly, fresh ideas about citizenship in terms of expectations and responsibilities will emerge from it. In a nutshell, designing and operating ICT-enabled land administration systems have been a substantial governmental effort over the past three decades, both at the national and sub-national levels, with the principal goal of promoting effective and efficient land governance. It's crucial for nations like India (Karnataka) to learn from international theory and practice as they develop their land administration systems to avoid making a variety of errors that would impede their further development and lessen the benefits they intended to harvest.

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## CHALLENGES FACING THE RESEARCH STUDY OF ELECTORAL PROCESSES INFLUENCING THE FORMULATION OF DEVELOPMENT POLICIES- AN OVERVIEW

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### **Introduction:**

In the context of the complexities of Elections in India through Social Science Research, democratic system in India is facing crucial issues and challenges, particularly in the realm of elections. Social science research is proposed as a means to unravel and understand these complexities for informed analysis and potential solutions. The relationship between electoral processes and the formulation of development policies is a complex and dynamic field of study that sits at the intersection of political science, public policy, and development studies. Understanding how electoral processes shape the policies that drive a nation's development is crucial for fostering effective governance and sustainable progress. However, this area of research is confronted with several challenges that necessitate a nuanced and comprehensive approach.

### **Needs of research in social sciences:**

Research practices in the social sciences are crucial for gaining a deeper understanding of human behaviour, societies, and the various factors that influence them. The needs of research practices in social sciences can be diverse and include the following:

**1.Understanding Human Behaviour:** Social science research helps in comprehending the complexities of human behaviour, attitudes, and interactions. This understanding is essential for addressing social issues, improving interpersonal relationships, and informing policy decisions.

**2.Addressing Social Issues:** Social scientists investigate and analyse social problems such as poverty, inequality, discrimination, and injustice. Research practices help identify the root causes of these issues and propose effective solutions.

**3.Policy Development and Evaluation:** Research in social sciences provides evidence-based insights that can inform the development, implementation, and evaluation of public policies. Governments and organizations can use this research to design policies that are more likely to be successful and beneficial.

**4.Cultural Understanding:** Social science research contributes to the understanding of diverse cultures, traditions, and belief systems. This knowledge is essential for fostering cultural sensitivity and promoting cross-cultural understanding.

**5.Predicting Trends and Patterns:** Social scientists often engage in longitudinal studies to identify trends and patterns in human behaviour and societal developments. This predictive aspect of research is valuable for anticipating and preparing for future challenges and opportunities.

**6.Improving Education:** Research in the social sciences is vital for enhancing educational systems. It helps identify effective teaching methods, assess educational policies, and understand the factors that contribute to academic success or failure.

**7. Health and Well-being:** Social science research plays a crucial role in public health by examining factors such as healthcare access, mental health, and social determinants of health. This information is vital for designing interventions and promoting overall well-being.

**8. Economic Analysis:** Social scientists contribute to economic research by studying economic systems, consumer behaviour, and the impact of economic policies. This research aids in understanding economic trends and formulating strategies for sustainable development.

**9. Environmental and Sustainability Studies:** Social scientists examine the relationship between society and the environment, exploring ways to promote sustainable practices and mitigate the impact of human activities on the planet.

**10. Community Development:** Research practices in social sciences contribute to community development by identifying the needs and aspirations of communities. This information helps design programs and initiatives that empower and improve the quality of life for individuals within those communities.

**11. Informed Policy Formulation:** Research on electoral processes helps policymakers understand the dynamics of political systems, voter behavior, and the factors influencing election outcomes. This knowledge is essential for formulating policies that align with the political landscape, ensuring they are contextually relevant and effective.

**12. Identification of Priority Issues:** Through analysis of electoral processes, researchers can identify the key concerns and priorities of the electorate. This information guides policymakers in addressing issues that resonate with the public, leading to the formulation of development policies that are more likely to be accepted and supported.

**13. Enhanced Democratic Governance:** Understanding the electoral process contributes to the strengthening of democratic governance. Policymakers can design policies that foster transparency, accountability, and citizen participation, thereby reinforcing democratic institutions.

**14. Social Inclusivity:** Research on electoral processes often highlights patterns of voting behaviour among different demographic groups. This information can be crucial for policymakers to design inclusive development policies that address the needs and concerns of diverse segments of the population, promoting social equity.

**15. Conflict Prevention and Resolution:** Analysis of electoral processes can help identify potential sources of political tension and conflict. Policymakers can use this information to develop policies that mitigate conflicts and promote political stability, creating an environment conducive to sustainable development.

**Benefits of analytical research of electoral process for formulating development policies:**

Analytical research of electoral processes can offer several benefits for formulating development policies. Here are some key advantages:

**1. Understanding Voter Preferences:** Analytical research helps policymakers understand the preferences, concerns, and priorities of the electorate. This knowledge is crucial for formulating development policies that align with the needs and expectations of the people.

**2. Identification of Socioeconomic Trends:** Analysing electoral processes allows researchers to identify socioeconomic trends, including patterns of voting behaviour across different demographics. This information is valuable for crafting policies that address specific challenges faced by various segments of the population.

**3. Evidence-Based Decision-Making:** Analytical research provides empirical evidence that policymakers can use to make informed decisions. Instead of relying on assumptions or anecdotal evidence, policymakers can base their choices on a thorough understanding of the electoral landscape and its implications for development.

**4. Targeted Policy Interventions:** By analysing electoral data, policymakers can identify regions or constituencies with specific needs. This enables the development of targeted

policy interventions aimed at addressing localized challenges and promoting more equitable development.

**5. Political Stability and Consensus Building:** Understanding the electoral dynamics contributes to the promotion of political stability. Policymakers can design development policies that take into account the political context, fostering consensus and reducing the likelihood of political instability.

**6. Feedback Mechanism:** Analytical research provides a feedback mechanism for policymakers. By continuously monitoring electoral processes and their outcomes, policymakers can assess the impact of existing policies and make necessary adjustments to align with evolving public sentiment.

**7. Enhanced Accountability:** Analysing electoral processes helps in identifying areas where accountability mechanisms may be strengthened. Policymakers can design policies that enhance transparency and accountability, contributing to good governance and sustainable development.

**8. Promotion of Inclusivity:** Analytical research allows for the identification of disparities in political participation and representation. Policymakers can use this information to design policies that promote inclusivity, ensuring that the benefits of development are distributed more equitably among different social groups.

**9. Mitigation of Election-Related Risks:** Research can help identify and mitigate risks associated with the electoral process, such as fraud, violence, or manipulation. Addressing these risks contributes to the establishment of a more conducive environment for policy implementation and development.

**10. Public Confidence and Trust:** Analytical research contributes to building public confidence and trust in the political process. When development policies are crafted based on a thorough understanding of electoral dynamics, it reinforces the perception that governance is responsive to the needs and aspirations of the people.

So, analytical research of electoral processes provides a foundation for evidence-based policymaking, ensuring that development policies are well-informed, targeted, and responsive to the dynamics of the political landscape.

**Issues and challenges of researching Indian elections and practices:**

Researching Indian elections presents a range of issues and challenges due to the country's diverse and complex political landscape. Here are some key issues and challenges associated with studying Indian elections:

**1. Vast and Diverse Population:** India is the world's second-most populous country with a vast and diverse population. Researching elections requires dealing with a multitude of languages, cultures, and sub-regional variations, making it challenging to generalize findings.

**2. Geographic Complexity:** India's vast geographical expanse includes varied terrain, from densely populated urban areas to remote rural regions. Conducting surveys and collecting data across such diverse landscapes can be logistically challenging.

**3. Election Frequency:** India conducts elections at various levels (national, state, and local) frequently. This high frequency poses a challenge for researchers in terms of resource allocation, planning, and the ability to keep up with the dynamic political scenario.

**4. Political Fragmentation:** The Indian political landscape is characterized by a multitude of political parties representing different ideologies, regions, and communities. Analysing and understanding the interactions among these diverse parties is complex.

**5. Caste and Identity Politics:** Caste-based and identity politics play a significant role in Indian elections. Researchers need to navigate the complexities of caste dynamics and identity-based mobilization, which often shape electoral outcomes.

**6. Data Quality and Availability:** While India has made strides in improving data infrastructure, challenges remain in terms of data quality, consistency, and availability.

Researchers may face difficulties accessing reliable and comprehensive datasets for analysis.

**7. Political Polarization:** Like many democracies, India has witnessed increasing political polarization. Studying elections in such an environment requires researchers to navigate biases and challenges associated with conflicting narratives.

**8. Electoral Fraud and Irregularities:** Electoral malpractices, such as vote-buying, booth capturing, and other irregularities, can pose challenges for accurate data collection and analysis. Researchers may encounter obstacles in obtaining reliable information on these issues.

**9. Security Concerns:** Certain regions of India experience security challenges, making it difficult for researchers to conduct fieldwork in those areas. This can limit the inclusivity of studies and lead to gaps in understanding the political dynamics of those regions.

**10. Technological Challenges:** While technology has been increasingly used in Indian elections, challenges related to digital literacy, access to technology, and cybersecurity may affect the accuracy and reliability of data collected through online surveys or other digital means.

**11. Language Barriers:** India is a linguistically diverse country with numerous languages spoken across its states. Language barriers can hinder effective communication with respondents and the interpretation of local nuances in political discourse.

**12. Sampling Challenges:** Determining representative samples for surveys or studies can be challenging due to the diverse socio-economic conditions, urban-rural disparities, and variations in political engagement across different regions.

Despite these challenges, researchers have made significant contributions to understanding Indian elections, and ongoing efforts are being made to address these issues. Overcoming these challenges requires a multidisciplinary approach, collaboration with local experts, and a nuanced understanding of India's socio-political context.

**Challenges faced by research methods in studying elections:**

Studying elections poses several challenges for researchers, stemming from the complexity and dynamic nature of electoral processes. Here are some common challenges faced by research methods in studying elections:

**1. Sampling Bias:** Ensuring a representative sample of the electorate is challenging. Issues such as non-response bias, sampling from certain demographics, and difficulty reaching specific groups can lead to a skewed understanding of voter preferences.

**2. Volatility of Political Landscape:** Political landscapes can change rapidly, especially during election periods. Conducting research in real-time to capture evolving dynamics can be challenging, and findings may become outdated quickly.

**3. Social Desirability Bias:** Respondents may provide answers they perceive as socially desirable rather than expressing their genuine opinions. This bias can be particularly pronounced in politically sensitive environments where individuals may fear reprisals or social judgment.

**4. Complexity of Voter Decision-Making:** Voters often make decisions based on a myriad of factors, including personal beliefs, candidate characteristics, party affiliations, and socioeconomic considerations. Capturing and analyzing these complex decision-making processes presents methodological challenges.

**5. Issues of Recall:** Voters may have difficulty accurately recalling their motivations, especially if surveyed after some time has passed since the election. Memory biases can affect the reliability of data related to campaign influences and voting behaviour.

**6. Availability and Quality of Data:** Researchers may face challenges in accessing comprehensive and reliable election-related data. This can be particularly problematic in regions with limited data infrastructure or where data collection is not transparent.

**7. Cross-Cultural Challenges:** In multicultural societies, understanding and interpreting the political behaviour of diverse communities can be challenging. Researchers need to be aware of cultural nuances and adapt their methodologies accordingly.

**8. Ethical Considerations:** Studying elections may involve sensitive topics, such as political affiliations, opinions on controversial issues, or demographic information. Maintaining respondent privacy and confidentiality while ensuring the integrity of the research can be challenging.

**9. Data Collection Timing:** Election campaigns and voter sentiments can be fluid, and the timing of data collection can significantly impact the accuracy and relevance of findings. Research conducted too early or too late may miss critical shifts in public opinion.

**10. Use of New Technologies:** While technology offers new avenues for research, challenges such as digital literacy, access disparities, and biases associated with online surveys can affect the representativeness of data collected through digital means.

**11. Limited Generalizability:** Findings from specific elections or regions may not be easily generalized to broader contexts. Researchers need to be cautious about drawing universal conclusions based on limited samples or specific electoral scenarios.

**12. Election-Specific Dynamics:** Each election has its unique dynamics influenced by local, regional, and national factors. Developing research methods that can adapt to these variations while maintaining methodological rigor is a constant challenge.

Researchers must be aware of these challenges and employ robust methodologies, including a combination of quantitative and qualitative approaches, to enhance the validity and reliability of their findings when studying elections. Adaptability and a nuanced understanding of the specific context are essential in overcoming these challenges.

**Solutions to problems faced by research methods when studying elections:**

Addressing the challenges faced by research methods when studying elections requires a thoughtful and adaptive approach. Here are some potential solutions to mitigate these issues:

**1. Sampling Strategies:** Employ random sampling techniques to reduce sampling bias, use stratified sampling to ensure representation from diverse demographic groups. Regularly update and validate voter databases to improve the accuracy of sampling.

**2. Real-time Data Collection:** Utilize rapid response and real-time data collection methods to capture evolving dynamics. Employ online surveys, social media monitoring, and other digital tools for timely insights.

**3. Minimizing Social Desirability Bias:** Use anonymized surveys to encourage honest responses, employ indirect questioning techniques to reduce the impact of social desirability bias, Combine self-reporting with behavioural observations to cross-validate responses.

**4. Recall Issues:** Conduct exit polls immediately after voting to minimize recall bias, Use event-triggered surveys to capture data closer to specific campaign events, Utilize panel studies to track changes in voter attitudes over time.

**5. Enhanced Data Accessibility:** Advocate for increased transparency in electoral processes to improve data availability, collaborate with election commissions and relevant authorities to obtain accurate and comprehensive datasets.

**6. Cross-Cultural Sensitivity:** Work with local experts to better understand cultural nuances and adapt research methods, Use a mixed-methods approach, combining quantitative data with qualitative insights to capture cultural variations.

**7. Ethical Considerations:** Prioritize ethical considerations in research design and implementation, obtain informed consent and clearly communicate the purpose and confidentiality of the study to participants.

**8. Strategic Timing of Data Collection:** Plan data collection strategically to coincide with key campaign events, use pre-election and post-election surveys to capture changes in voter sentiment over time.

**9.Addressing Digital Divide:** Implement multi-mode surveys that include both online and offline methods to reach diverse populations, ensure that digital literacy is not a barrier by providing necessary support and assistance during data collection.

**10.Generalizability and Contextual Understanding:** Clearly define the scope and limitations of the study to acknowledge the context-specific nature of findings, conduct comparative analyses across multiple elections or regions to enhance generalizability.

**11.Adaptive Research Designs:** Use adaptive research designs that allow for flexibility in response to changing circumstances, incorporate iterative feedback loops to refine research methods based on emerging insights.

**12.Combining Quantitative and Qualitative Approaches:** Employ a mixed-methods approach to triangulate findings and enhance the robustness of the research, qualitatively explore contextual factors that may influence quantitative results.

By implementing these solutions, researchers can enhance the reliability and validity of their studies on electoral processes, ultimately contributing to a better understanding of political dynamics and informing evidence-based policymaking.

**Conclusion:**

In conclusion, the study of elections through research methods presents a myriad of challenges rooted in the dynamic, multifaceted nature of political processes. However, these challenges are not insurmountable, and researchers can adopt various solutions to enhance the quality and reliability of their studies.

Issues such as sampling bias, real-time data collection, social desirability bias, and data accessibility demand careful consideration and methodological adjustments. Employing random and stratified sampling techniques, utilizing real-time data collection methods, and minimizing social desirability bias through indirect questioning are some strategies to address these challenges. Additionally, ethical considerations, cross-cultural sensitivity, and addressing the digital divide underscore the importance of responsible and inclusive research practices.

Strategic timing of data collection, solutions to recall issues, and adaptive research designs are critical in capturing the dynamic nature of electoral processes. Collaboration with local experts, advocating for increased transparency, and employing a mixed-methods approach can contribute to overcoming challenges related to cross-cultural nuances, data availability, and generalizability.

In navigating these complexities, it is essential for researchers to recognize the limitations of their studies and communicate them transparently. The research study of electoral processes influencing the formulation of development policies is a challenging but essential field. This intersection requires interdisciplinary collaboration, robust methodologies, and a keen awareness of the contextual factors that shape political landscapes. Despite these challenges, addressing these issues is crucial for advancing our understanding of the intricate relationship between elections and the policies that drive societal development.

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## INEQUALITY OF GENDER IN INDIA

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### ABSTRACT

*Both men and women are equal and have a crucial role to play in the introduction and advancement of their homes in particular and in the modern society. In fact, one of the main issues of the ladies' movement globally has been the fight for equality. There is no difference in popularity based on differences in sex or physical shape. Gone is the inferior complex because women are men's equals. Women in India have long been viewed as the subjugated class and disregarded for hundreds of years due to their lengthy backs. Undoubtedly, gender disparity exists in India. Women are performing incredibly well in a variety of extraordinary fields these days. The majority of Indian women continue to face discrimination and gender inequality. India's gender disparity is more pronounced than in other nations. One of the multi-dimensional indicators of gender inequality is the gender gap index. India was placed 101st out of 136 countries in the world in 2013 with a WEF score of 0.67. This essay aims to identify the factors that contribute to gender disparity and provides solutions to address the issue.*

### INTRODUCTION

Gender-based discrimination is a common human rights violation that manifests itself in a variety of ways, including sexual harassment, differential pay for women performing equivalent work to males, and discrimination even at the level of pregnancy. Even though the Indian constitution provides equal rights and opportunities for men and women and includes similar provisions to improve the status of females in society, most women are still unable to fully enjoy these rights and opportunities.

Despite the truth that the Indian constitution offers one and the identical rights and advantages to males and females and makes parallel procurement to beautify the reputes of girls within the social network, however that the rights and opportunities ensured to the girls by means of the constitution, are nonetheless some distance away to revel in that benefit by way of most part of ladies. The anti-woman mindset and inequality inside the society compel the ladies populace to bring down inside the traditional cost machine like too much household obligation diminishes their possibility to flourish. In the existing era, few other elements like lowest literacy charge, unemployment, poverty among ladies are very commonplace in India due to gender disparity in society. This paper is seeking to convey out the elements which can be answerable for gender inequality and shows measures to remove this problem.

According to the UNDPHDR 2016, India is ranked 132 out of 187 countries on the gender inequality index, which is a lower ranking than Pakistan (122). According to the file, Sri Lanka (74) has been the best country in South Asia for girls, with the exception of Afghanistan. Bangladesh came in at number 111, and Nepal at number 102. Not only does gender disparity deny women access to basic social opportunities, but it has also seriously

jeopardised the prospects for future generations' lifestyles. Indian households sadly frequently choose boys over girls, and the practice of girl feticide is widespread. Compared to 8.6% of males, just 28% of Indian girls over 16 had entered the US work force in 2012.

**SURROUNDING FACTORS**

This inequality is evident at work where women are given different working conditions, paid differently, treated with disrespect, subjected to sexual harassment, given longer workdays, employed in hazardous industries, face occupational hazards, put in almost twice as many hours as men, and nearly 27% of girls work unpaid jobs. India is notorious for its violence against women, with reports of sexual harassment occurring every 42 minutes, kidnappings occurring every 43 minutes, and dowry-related burnings occurring every 93 minutes. Additionally, rapes that occur in the aforementioned pre-region involve girls who are younger than sixteen. A woman is assaulted every 26 minutes, while a rape occurs in the area every 34 minutes.

**EDUCATION-RELATED INEQUALITY:**

The most notable result of this increased understanding of education and training has been a dramatic increase in literacy rates among Indians, which rose from 17% to 64% in the 50 years ending in 2001. Still, at the start of the twenty-first century, there was a sizable gender disparity of around twenty-three percent (GOI 2000; GOI 2011). The literacy rate increased to 72% in 2011 based on census estimates; nonetheless, women's literacy levels are still 15% lower than men's, notwithstanding a minor narrowing of the gender gap (GOI 2011). Although the percentage of youths aged 15 to 24 who are literate has increased to 82% between 2013 and 2016, there is still a gender gap of 15% (UNESCO 2016). Compared to 50.5% of men, just 27.6% of women over 25 had a secondary education in 2015. Pakistan's score was much worse, with 18.4% of women and 42.1% of fellows having completed secondary training. In the United States, 94.8% of females and 93.3% of boys, respectively, have completed secondary education.

**OBJECTIVES**

1. To identify the factors that may be responsible for gender inequality.
2. To recommend the reduction of gender inequality.

**THE FOLLOWING FACTORS CONTRIBUTE TO GENDER INEQUALITY:**

**There are many factors responsible for gender inequality:**

**1. ECONOMIC FACTORS**

**I. Property Rights:**

Although girls have equal rights under the law to personal belongings and obtain same inheritance rights, but in exercise, ladies are at a disadvantage. The Hindu Succession Act of 2005 offers identical inheritance rights to ancestral and at the same time owned property, the law is weakly enforced.

**II. Employment inequality:**

Some not unusual inequalities that take area within the administrative center are the gender-primarily based imbalances of people in strength and rule over the control of the company. Women aren't able to circulate up into higher paid positions quick in comparison to guys. Some common disparities that take area in the workplace are the gender-based totally imbalances of people in electricity and rule over the organisational management. Women aren't capable of pass up into better paid positions quick as compared to guys.

**III. Credit Access:**

When it comes to access to banking services, there are significant differences between men and women. Because of low levels of property ownership, women often lack security for bank loans, and microcredit score systems have come under fire for their coercive lending tactics.

**IV. Inequality of Occupation:**

Women are not allowed to have fight roles in navy offerings. Permanent commission couldn't be granted to female officers because they have got neither been trained for command nor were given the responsibility in India

**V. Labour involvement:**

In India, there is a pay gap between men and women. A significant portion of women typically join the workforce after turning thirty. Following the fulfilment of their reproductive functions of producing and raising children.

**2. SOCIAL FACTORS:**

**I. Dowry:**

The dowry system in India contributes to gender inequalities by using influencing the belief that ladies are a burden on families. Such belief limits the assets invested with the aid of parents in their women and restriction her bargaining strength inside the circle of relatives.

**II. Health:**

On fitness problem, the gender inequality among women and men life expectancy and women stay compared to guys in proper health because of plenty of violence, disorder, or other relevant factors.

**III. Women's inequality in decision making:**

In India, Women have less authority than guys to criminal recognition and safety, as well as decrease get admission to to public expertise and information, and much less choice-making energy each inside and outside the house. This is likewise one of the motives for inequality in gender.

**IV. Education:**

In India, the percentage of women who are literate is lower than that of men. As per the 2011 Indian Census, the literacy rate for females is 65.46%, while that of boys is 82.14%.

**3. CULTURAL FACTORS:**

**I. Son preference:**

Men are given the exceptional rights to inherit the own family name and residences and they're regarded as additional popularity for his or her own family. Moreover, the prospect of dad and mom, losing daughters to the husband family and high priced dowry of daughters in addition discourages parents from having daughters. There is a sturdy perception that daughter is a legal responsibility. addition discourages parents from having daughters. There is a sturdy perception that daughter is a legal responsibility.

**II. Sons' place in religious rites:**

Another component is spiritual activities, which could only be completed for their mother and father's afterlife with the assistance of adult males. Sons are frequently the most straightforward people who have the right to attend their parents' funerals.

**III. Lineal System:**

It is a not unusual kinship machine in which an character's circle of relatives membership derives from and is traced via his or her father's lineage. It commonly entails the inheritance of property, names, or titles by using people related through one's male kin.

**IV. Support for older men from sons:**

One of the main problems with gender inequality is that men are preferred over daughters because they are thought to be more productive. They are said to support their parents' old-fashioned safety.

**ACTIONS TAKEN TO REDUCE GENDER INEQUALITY IN INDIA:**

We have made significant progress in tackling gender imbalances since India gained its independence, particularly in the areas of political meddling, education, and prison

rights. With the support of the Indian government, policies and prison reforms aimed at addressing gender disparities were implemented. For instance, there is a provision guaranteeing the freedom from sexual discrimination and the right to equality in the Indian Constitution. India has ratified the Convention on the Elimination of All Forms of Discrimination against Women.

Measures to Deal with Inequalities, Enforcement of Constitutional Guarantee of equality as enshrined in fundamental rights. Articles 14, 15 and 16 form part of a scheme of the constitutional right to equality. Article 15 and 16 are incidents of guarantees of equality, and gives effect to Article 14.

In its preamble, the Indian Constitution guarantees gender equality as a basic right. Through a series of laws and policy changes, the government has implemented numerous measures that show subtle favouritism towards women. In order to protect girls' equal rights, India has also ratified a number of international agreements and human rights forums. In 1993, it ratified the Convention on the Elimination of All Forms of Discrimination against Women.

Gender inequality had been overcome by women locating regions in local governing structures. As a result of a 1993 amendment to the Indian Constitution mandating that women hold one-third of the elected seats in the local governing bodies, nearly one million girls were elected to local panchayats.

#### **CONCLUSION**

India needs to take proactive measures to reduce gender inequality. It is necessary to reconsider the ideas and methods used to promote women's rights and dignity as long as gender inequality exists. New kinds of institutions are needed, along with new rules and conventions that support women and men as equal and simple family members. A man and a woman are like a carriage's two wheels. A person's lifestyle is incomplete without the other. The most practical guaranteed method of preventing gender disparity is to alter people's mindsets. This problem cannot be handled by only a few people, but everyone must work together to end this inequality.

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## A STUDY ON INITIATIVES SOCIAL WORKS BY NGOS IN RURAL INDIA

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### ABSTRACT

*Rural development is a complex process as it involves continuous reorientation and adaptation of traditional values, practices and institutions in order to incorporate increasing corpus of scientific knowledge and technologies to enhance quality of life and welfare of the people. It is essentially a problem of change in modernization which can be handled effectively only with the active participation of the people in every stage of decision-making. It is now widely believed that rural development as a people-centered programme should be viewed as a process of change to brought about and sustained by the people or the target group themselves. For this to happen people have to be organized and enable to be active participants of the development process. This role is appropriately suited to the Non-Governmental Organizations (NGOs) which have emerged as viable forces for the articulation of people's needs and grievances. Recognizing this government policy has also been to encourage NGOs to participate in the task of rural development wherever and whatever way it is feasible.*

**Keywords:** NGOs, Rural Development, Liberalization, Globalization, human Rights, policy implication and (MGNREG).

### Introduction

India is a land of villages and the Government of India has been implementing numerous rural development programmes for the upliftment of rural Communities. Non-government organizations with their advantage of non-rigid, locality specific, felt need based, beneficiary oriented and committed nature of service have established multitude of roles which can effect rural development. A number of NGOs have been playing a vital role in rural community development, besides government interventions. Realizing that the government alone was not able to meet the challenges of the massive enormous tasks in the process of rural development, the non-profit, voluntary and non-governmental organizations had to be involved in different phases and activities at the global, regional and local levels. Thus, in later phases, both the GOs and NGOs have been actively involved in transforming the lives of the rural poor. No doubt, NGOs have been constantly working day-in and day-out to solve various problems concerning children, women, senior citizens, environment etc.

NGOs are not a new phenomenon in India. Voluntary effort has always been an important part of Indian culture and social tradition the need for organizing people into accredited associations and their involvement and participation in rural development has now been fully recognized. In the recent years, they have increased in considerable number, acquired greater importance and significance and put up many new experiments in the field of rural development because government organization has not been able to reach the people particularly the rural poor in regard to rural development at the desired level. Although huge amount of money has been allocated and spent on different schemes of rural

development over the years. Yet the benefits have not reached the rural poor. Despite significant changes in approaches and strategies to the cause of rural development, the government has not been able to achieve minimum desirable targets in the field of education, nutrition, health, drinking waters and employment.

#### **Aims of NGOs**

These aims cover a wide spectrum of subjects like socio-economic development, empowerment of women, development of rural folks, tribal's, environmental protection, literacy, rehabilitations of the needy, awareness programmes, poverty alleviation, leadership training consumer protection, conscientisation and so on. The major objectives of NGOs are as follows:

- ❖ Development of women and rural folks socially, economically, politically through income generating activities, education programmes, awareness camps, etc.
- ❖ General socio-economic development of the people living in rural areas especially in down-trodden areas.
- ❖ Encouraging the rural folks to participate actively in cultural activities, arts sports and science activities.
- ❖ Development of the under-privileged sections of the society such as fishermen tribals, rural women etc.
- ❖ Initiating self-employment ventures (for men and women) and organizing leadership/personality Development programmes.
- ❖ Propagating Gandhian ideology and literature, creating awareness and conducting de-addiction programmes.

#### **Goals of NGOs**

- In essence, the goals of NGOs in Rural Development are:
- To bring about social justice for the poor and create awareness about their rights and duties;
- To promote growth in social, political and economic aspects of life in rural areas and
- To devise policies through networking with national and international agencies for sustainable development and facilitate the practice of the same.
- To help the people help themselves in their endeavours to progress;
- To promote the growth of inherent potentials among people;
- To initiate a process of participatory development.

#### **NGOs in India:**

- **This was the first phase of NGOs in India.** Soon after Independence, a number of NGOs had emerged in India. Mahatma Gandhi even pleaded to dissolve the Indian National Congress and transform it to a Lok Seva Sangh (Public Service Organization). Though his plea was rejected, but the followers of Mahatma Gandhi started many voluntary agencies to work on various social as well as economic issues of the country.
- **The second phase of NGO** development started in 1960 when it was felt that just the government programs were not sufficient to complete the task of development in rural areas. Many groups were formed whose role was to work at grass root levels.

Over the years, the role of NGOs in rural development of India increased. At present too, their role significantly changes with the change in the policies of the government through different plans.

- ❖ **In the sixth five-year plan (1980-1985)**, a new role for NGOs in the rural development had been identified by the government.
- ❖ **In the seventh fiveyear plan (1985-1990)**, the Indian government envisaged an active role of NGOs in developing self-reliant communities. These groups were supposed to show how the village resources along with human resource, skill, local knowledge that is greatly underutilized could be used for their own development. As

NGOs were working in close connection with local people so bringing such a change was not a tough task for them.

- ❖ **The eighth five-year plan**, more importance to NGOs for rural development in India had been given. Under this scheme, a nationwide NGO network had been created. The role of these agencies was the rural development at a low cost.
- ❖ **In the ninth five-year plan**, it has been proposed that NGOs would play a significant role in the development on the public-private partnership model. More scope has been provided to NGOs by the government for rural development through the agricultural development policies as well as their implementation mechanisms.
- ❖ **As with every five-year plan**, the role of NGOs in the rural development of India is growing, so NGOs are now attracting professionals from different fields. NGOs act as planners and implementers of developmental plans.

#### **Functional Areas**

The Functional Areas of NGOs can be grouped under the following broad categories:

1. **Advocacy:** Advocating causes which are socially relevant such as improving the condition of rural poor, abolition and rehabilitation of bonded labour, adoption of small family norm, preventing environmental degradation, improving women status, promoting literacy, etc.
2. **Development:** Implementation of a wide range of development programmes.
3. **Research, Evaluation and Documentation:** Studying problems of the rural areas and evaluating development programmes thereby expanding the knowledge based on development strategies, delivery systems and cost effectiveness of programmes. The documentation of information on voluntary effort provides information which is invaluable for programme planning.
4. **Training:** Providing professional skills to the functionaries at different levels and upgrading competence in different areas of responsibilities.
5. **Social Activism:** Advocating changes in organisations and structures through awareness, organization building and, when necessary, challenging existing and institutions and advocating radical action.

#### **Goals of Government in NGO**

NGO approaches to government now range from strongly oppositional to closely collaborative, with the majority of NGOs keeping an uneasy, sometimes reluctant, but pragmatic and often sophisticated partnership with the state in its various forms.

NGOs have responded to the government's socioeconomic development agenda over the years. Thus, when the government changed emphasis from capital-oriented growth to anti-poverty programs, NGOs made a distinct shift from welfare and service delivery interventions to a direct attack on poverty. Subsequently, in the 1990s, when the state moved on to macro-economic and structural reforms, NGOs began to focus on scaling up their activities. This led to their working with the state to develop innovative methods and ensure commensurate changes in policy.

Goals of the state and NGOs have converged, particularly in the areas of empowering communities, encouraging participation, strengthening democratic institutions, and improving access to basic services like health and education. They differ in the uniform, bureaucratic processes adopted by the state, contrasted with the NGOs' more flexible response to local needs.

The government has set up several institutions to promote funding of NGOs (e.g., Khadi and Village Industries, Cooperatives, Central Social Welfare Board, National Wasteland Development Board, and CAPART. This has led to the beneficiaries' dependence on the state. NGO reliance on such funding has also introduced the risk that they will lose their autonomy and become mere implementers of public sector projects.

### **Role of NGOs in Rural India**

NGOs are playing a promising interlocutors role in all development activities in existing academic as well as development studies. In recent times, responding to Grass-roots level initiative and voluntary action became necessary to develop the rural areas. The increasing demands for the NGOs are itself a response to recent trends relating to socio-economic issues and their corresponding development interventions in academic and policy-oriented research.

Moreover, development administrators and change agents have to keep this fact in mind while working on any development project/programme that require deep thinking, sincere attempts and extensive involvement. Either organizations or individuals those who know this fact hardly try to make an attempt through short-cut methods for the development of their communities or the communities they work for. It is only this distinguished quality of them attracts one to focus their attention to such organizations and individuals involved in social uplift of deprived and underprivileged sections of the society.

There is an urgent need for accepting the changing role of NGOs in the implementation of child care, women development, anti-poverty and minimum needs programmes. While the role of NGOs has been accepted in supplementing governmental effort, still there is general confusion and lack of understanding on how best they involve themselves directly in the mainstream of development process. Now, this is a turn to recognize the changes that have taken place in the society that there are many other economically and social vulnerable groups like small and marginal farmers, agricultural labours, scheduled castes and tribes, bonded labours, rural artisans, rural women, etc., who also need to be brought in the mainstream of development process.

### **Rural Development Schemes and NGO:**

The important schemes available from Government of India for Rural Development are:

- ❖ Mahatma Gandhi National Rural Employment Guarantee Act (MGNREG)
- ❖ Swarnjayanti Gram Swarozgar Yojna (SGSY)
- ❖ Pradhan Mantri Gram Sadak Yojna (PMGSY)
- ❖ Indira Awaas Yojana (IAY)
- ❖ National Social Assistance Programme (NSAP)
- ❖ Department of Land Resources-DoLR
- ❖ National Land Records Modernization Programme (NLRMP)
- ❖ Integrated Watershed Management Programme (IWMP)

### **The Integrated Rural Development Programme (IRDP):**

The Integrated Rural Development Programme (IRDP) is a rural development program of the Government of India launched in Financial Year 1978 and extended throughout India by 1980. It is a self-employment program intended to raise the income-generation capacity of target groups among the poor. The target group consists largely of small and marginal farmers, agricultural labourers and rural artisans living below the poverty line.

The Government runs its large-scale rural development schemes mainly through the Ministry of Rural Development, National Bank for Agriculture and Rural Development (NABARD), and Khadi and Village Industries Commission (KVIC). Besides, some autonomous bodies like District Rural Development Agency (DRDA), National Institute of Rural Development (NIRD), National Rural Roads Development Agency (NRRDA) and Council for Advancement of People's Action and Rural Technology (CAPART) are also working in tandem with the Government.

### **Opportunities:**

**Local Resource** Mobilization provides potential for NGOs to raise funds from local businesses, individuals, government and locally generated income. To do this NGOs must have strong governance and accountability mechanisms, clear strategies and local credibility.

**Local Networking** provides opportunities for mutual learning, identifying appropriate development initiatives, generating learning resources, improving coordination and cooperation with local government, harmonizing approaches to development, and pursuing effective local advocacy. Form consortia to source funding from the donor community.

**Regional NGO Networks:** Regional and thematic networks present opportunities to NGOs to share research, approaches, resources, capacity and work with both GoK and the corporate sector. Strong regional networks also provide the basis for supporting district level networks and ensuring the NGO Council remains strong by keeping its membership strong.

**NGO Income Generation:** NGOs with excess assets can use them to generate income which may be used as the NGO determines. Consider renting buildings, providing consultancy, offering training, trading on your name or with locally made products.

**Information, Communication and Technology (ICT):** The world has moved into the technological age. Get connected! Internet and email are fundamental to serious organizations. Set up a simple website and start building your networks and your profile. Share with others your work, approaches and impact.

**New NGO Act:** The proposed new NGO Bill and Act, provides both opportunities and threats to the NGO community. If the NGO Council effectively lobbies for the NGOs in an informed and professional manner, a more enabling environment for this sector may result. Alternatively it is possible for the Sector to lose its self regulating mechanism and be controlled by a single government-appointed body.

**Government devolved funds and new funding mechanisms:** The CDF, Constituency Aids Funds, Youth, Women, Water, LATF and other locally available development funding is available to local NGOs and CBOs, which should also be more involved in the management of these funds. New basket funding from central government, through the NGO Board, is also a possibility.

**Major role seen for NGO's in rural development:**

As economic reform and liberalization saw the Government vacating several areas to let private sector entrepreneurship flourish and contribute to the high growth rate of the economy in recent years, a similar paradigm shift is needed to transform NGOs from their dependence on aid and grants from within and outside for transforming the rural scenario in the country.

**Better credibility:** As NGOs get finance generated through their own activities. Their credibility vastly improves and their service to rural people gets reinforced. CNRI is an apex body with over 2,000 member NGOs engaged in multifarious activities ranging from self-help group formation, income generation, marketing, and agency work for insurance companies for life and non-life products and for banks and financial institutions to environment protection, watershed management, handicrafts, textiles, traditional medicinal plants and HR development. It is completing one year of its existence. To mark the celebration of one year of its service to NGOs, CNRI is hosting a three-day national meet - 'Advantage Rural India' - from April 17.

**Special Sessions:**

The NGOs have taking active participation in rural development. The rural poor and socially depressed classes are mainly depending upon the operations of NGOs. No particular job is particularly meant for the NGOs. Thus, there is a huge competition among the NGOs to extend the services for the benefit of the poor. At the same time we should not forget the mushrooming of the NGOs for their welfare. The following are the important activities should take up for the development of the poor.

**1. Agricultural related programs:** Numerous activities can be undertaken under agriculture sector. The jobs/projects like distributing planting materials, cattle, poultry, minor irrigation, free medical care for cattle's, safe drinking water for animals etc.

**2. Health programmes for human and non-human beings:** The works like pit drainage, housing, creation of smokeless environment, good drinking water for animals and human

beings, regular health checkup camps etc. will improve the health conditions of the human and non human beings.

**3. Human Rights:** NGOs have played a role akin to that of an eye specialist in human right issues. It takes some one (NGO) from the outside to tell the government (democratic or dictatorial) that you are not representing the interest of the citizenry but a few elite. When the vision of government and politicians are blurred as regards respect for human rights, the NGOs who are acting as eye specialist can fit them a pair of appropriate glasses to see properly. The issues of development and democracy is being linked to human right issues because there can be no true economic and political advancement without respect for human beings.

**4. Community development programs:** The community development programs like adoption of villages for development, moral support during flood and famine period, supply of food and drinking water during flood, common well, training programs for the rural youths, housing projects, repair and renovation of houses etc will satisfy the basic necessities. The important program like training programs for the rural poor will hold the youths from rural exodus. Even this type of training programs may also be extended for the rural women, so that we can expect self sustenance among this community.

**5. Human Resource Development programs:** The personality development programs, skill development programs, educational programs, integrated development projects etc will enable the rural poor to earn bread and butter.

**6. HIV/AIDS and other Topical issues:** There is no doubt that NGOs have been at the forefront (although in collaboration with government) in fighting the endemic problem of HIV/AIDS. Through various work-shops, seminars, symposiums, media campaign etc, NGOs like Community Partners For Development and Action in Development Centre etc have been able to create awareness of HIV/AIDS and its implications on poverty and development. They have also been involved in other topical issues such as child abuse, early marriage, human trafficking and prostitution, child labor etc. with a view to creating awareness of policy makers to the plight and consequences of these social maladies.

**7. Trade and industrial promotion:** The important problem in the present context is availability of the market for the products of rural enterprises. Therefore, an NGO has a direct link with the government for marketing of the goods. Apart from this, NGO can also go for training the rural youths in fabrication works, wood works, beedi rolling, agarbathi manufacturing, printing press etc.

**Policy implications:**

The following suggestions and policy implications have been made for the further improvement in their working of NGOs.

- i. The overdependence of NGOs on funding agencies and the syndrome of dependency should be reduced by involving the government directly in funding activities.
- ii. Donor agencies should also take active initiation in selecting the funding projects and even selecting of NGOs too.
- iii. The donor agencies should go for surveying the viable projects for NGOs and the needs of the people.
- iv. NGO should also accept the truth that, the funding agencies are no longer available for the projects which are not viable.
- v. Proper monitoring the activities of the NGOs and the enterprises run under the umbrella is the need of the hour. Therefore, the NGOs should also accountable for the funds on the one hand and the beneficiaries on the other.

**Conclusion**

The role played by government at various levels national, state and local have in some or many ways failed at addressing the key issues in rural economic development. In other words, the rural development programmes embarked upon by government to transform the rural economy have minimal impact on the rural economy of the nation. It is

therefore, the responsibility of the NGOs who can penetrate the rural communities to engage them in participatory development process for the rapid development of the rural areas. In addition, NGOs are flexible and effective at obtaining true meaningful participation of the intended beneficiaries, as well as achieving the correct relationship between the development process and outcomes.

Rural development has the rural dwellers as the focus of attention. It is the rural dwellers alone who can effectively identify their own problems and adequately identify their perceived needs. It therefore, becomes imperative that they be involved in the design and implementation of development programmes meant to improve their welfare. Therefore, rural development planning should start from the people themselves in a bottom-up strategy.

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