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KIRAN ROWTH
VEERESH .K.M

CONTENTS

IMPACT OF DIGITAL MARKETING IN AGRICULTURAL SECTOR IN INDIA

Dr. Ambanna Malkappa
Associate Professor, Government First Grade College,
Sedam Tq. Sedam Dist. Kalaburagi

ABSTRACT

Agriculture is the prime framework for the development of the Indian economy. Therefore, effective agricultural product distribution is necessary to develop the country's economic condition. Digital marketing is one of the most important tools that can transform rural India into a digital India. Moreover, it connects the farmers with their customers with no involvement of any middlemen. Therefore, the government introduced several digital means of marketing, including e-NAM, e-governance effort, Agri Market app, and many more. In this context, the present paper makes an attempt to study the theoretical aspects of digital marketing in agriculture sector, to identify the impact digital agricultural marketing services in India, to discuss the benefits and constraints of digital agricultural marketing in India and to give suggestions for improvement of digital agricultural marketing in India.

Keyword: *- ICT= Information and communication technology*

INTRODUCTION:

India is an agricultural country that depends on agriculture sector directly or indirectly. India laid much emphasis on agriculture production with world ranking of second in rice, fruits, and vegetables after China. Marketing plays eminent role in reach of agriculture produce to consumers, selling of output, fetching good price, creating relationships, satisfying customers. Agriculture marketing is inferred to cover services involved in moving an agriculture product from the farm to the target consumer. It helps in planning, organizing, grading, packing, storage, food processing, distribution and advertising. Agriculture marketing system has undergone several changes over the last 60 years owing to the increased marketed surplus, increase in urbanization and income levels and consequent changes in the pattern of demand for marketing services; increase in linkages with distant and overseas markets. The main objective of agriculture marketing is to reduce the cost of marketing. Agricultural Information Technology is one of the important factors that lead to the expected development. Use of information and communication technology (ICT) in agricultural sector can be called as e-agriculture or e-agribusiness. Digitalization will change every part of agri food chain but require major transformations in farming, rural economics and marketing of produce. The application of ICT in agriculture has positive effects for farmers in terms of accessing market information and promoting agricultural products.

What is Digital Marketing?

Digital marketing is the promotion of various agricultural produces via electronic media. The advertisement may be done via the internet, mobile phones, social media, electronic billboards, television and radio channel. Digital marketing is the integral components of all the communication methods and became a success factor in agriculture.

Need of Digital Marketing in Agriculture

Agriculture is the key sector in the nation. Crop production in India has been improved from the green revolution, which is the important weapon to fight against the world hunger to improve the livelihood of people and increase the economic growth. Application of ICT in agriculture will helps in increasing the crop production which leads to economic growth.

Methods used in Digital Marketing

The use of ICT in agriculture has increased over a period of time. The farmers can market their produce through websites, web portals, through mobile services with mobile apps. Mobile services are very cheaper mode of marketing the products by creating mobile Apps. The market updates can reach the farmers and consumers in fraction of seconds. With the market updates they can get the products directly from the farmers. No inter mediators are required by the use of digital marketing in agriculture.

OBJECTIVES OF THE STUDY:
1. To study the theoretical aspects of digital marketing in agriculture sector
2. To identify the impact digital agricultural marketing services in India.
3. To discuss the benefits and constraints of digital agricultural marketing in India
4. To give suggestions for improvement of digital agricultural marketing in India.

IMPACT DIGITAL AGRICULTURAL MARKETING SERVICES ON AGRICULTURAL BUSINESS IN INDIA:

1. **Digital Mandi –** A digital application created by IIT Kanpur and BSNL, which aims to provide present market rate of agricultural commodities to farmers. This help farmers in making market related decision like selection of market and appropriate time to sell their commodities to maximum return.
2. **m-Krishi –** TCS mobile agro-consultancy technology uses mobile and sensor technology to let farmers send their queries and receive information on climate and local Mandi prices. Farmers are also delivered with expert's advice and other relevant information to them in their local language. This app also supports text, voice and pictures.
3. **m-Kisan –** m-Kisan is a mobile based agro advisory for farmers with actionable information. The information is delivered through mobile channels like voice, text messages, on-demand videos and farmer's helpline. This app gives appropriate advice to farmers on the relevant crop, livestock issues and provide platform for exchange of knowledge.
4. **YouTube –** YouTube provides a roadmap towards successful agricultural business dimension through attractive videos. Since many people feel easy when accessing visually, this tool easily convey benefits and features of goods and services. Video can be particularly useful in showing viewers a process (e.g., such as planting seeds, methods of harvesting, use of fertilizers and pesticides), documenting events and activities that occur at the farm or garden. Farmers can also create a YouTube account and "subscribe" to "channels" that are specific to them. By subscribing, farmers receive alert message, when a new video is posted to the channel. Farmers will also find a list of recommended videos based on their subscription preferences when they log into YouTube. Another major feature in YouTube is that farmers can earn income from their videos if they fulfil YouTube policies of monetization.
5. **WhatsApp –** WhatsApp sends real time messages and it is among the leading communication applications of 21st century. WhatsApp can be used to establish linkage between agricultural value chain agents viz., agro input dealers, agro business centres, Small and Medium Enterprises (SMEs) and extension workers. This paves way for creating greater value for the small and marginal farmers. The key feature of WhatsApp has been the group messaging ability of the platform to send messages, photos and videos to individuals and groups in a cost effective manner. There are so many examples in agricultural where WhatsApp has been used for quick sharing of information on various production related aspects and also marketing of locally grown produce.
6. **Facebook –** Farmers can use Facebook in multiple ways for production and market related aspects. It offers an avenue to keep customers in contact and the public in general. Facebook provides facilities like digital walls, posts, status, videos and links which allows farmers to advertise about their farm produce and value added products.

7. **Telegram –** Telegram offers huge potential while maintaining the privacy of the mobile number from unknown people. Telegram can accommodate about 2 Lakh members in a group. Due to this wide extended facility more and more farmers can join in a group and share their commodity, knowledge and other useful information. Information can be transferred through PDF, PPT, Docs and Links.

8. **AgriMarket –** Agri Market mobile app provides information about market news (arrivals and prices) of agricultural commodities in the vicinity of 50 kilometres around the farmer's location with the help of mobile GPS. There is an alternative choice to get price of any market and any crop just in case person does not want to use GPS location.

9. **e-NAM –** National Agriculture Market (eNAM) is a pan-India electronic trading portal which networks the existing APMC Mandis to create a unified national market for agricultural commodities. Small Farmers Agribusiness Consortium (SFAC) is the nodal agency for implementing eNAM under the supervision of the Ministry of Agriculture and Farmers Welfare, Government of India. It is a comprehensive model envisaged to take care of various physical and facilitating functions of the market like storage, grading, packing, finance, insurance, promotion, etc. in addition to the scientific, transparent and competitive price discovery of prices.

10. **Farmers Portal –** Farmers Portal website is venture to make one stop shop for meeting all information needs on production, sales and storage of farmers relating to agriculture, animal husbandry and fisheries sectors. Using the Portal, a farmer will be in a position to access related sources of information on their area of interest. The sources of information shared to the farmers in multimedia formats covering text, audio and video in the local languages. Farmer's enquiries are addressed properly through separate feedback mechanism designed with interactive features to address their problems.

11. **Kisan Call Centres –** Kisan Call Centres are exclusively designed as a phone helpline for the farmers in the regional languages. Kisan call centres are located in every state to manage enquiries without congestion from every location of each state. Solutions to queries related to agricultural and allied activities are offered through these call centres by the exports. By using toll free number 1551 or 1800-180-1551 farmers can share their issues associated with their crops with the Kisan Call Centre. The staff of the Kisan Call Centre will try to reply to the queries of the farmers as early as possible, based on their knowledge or refer to a subject matter specialist.

12. **IFFCO Kisan Sanchar Limited –** IFFCO Kisan Sanchar Limited aims in uplifting the farmer's livelihood by providing a range of practical solutions. It aims to transform the agriculture with the application of technology and facilitating farmers by providing mobile advisory services through IFFCO Kisan Agriculture App, and IFFCO Kisan call centre. They have their own distribution network to supply variety of commodities like feed for cattle, honey and spices. Working closely with their institutional partners, they also help farmers associations and Farmers Producers Organizations (FPO) to upgrade the quality of products and provide viable options to sell their produce directly to the manufacturing and processing units.

13. **AGMARKNET –** Ministry of Agriculture launched the Information and Technology (ICT) based central sector scheme named as Agricultural Marketing Information Network (AGMARKNET) by connecting vital regulated markets located throughout the country and state agriculture marketing boards and directorates. AGMARKNET provides interface among farmers and other beneficiaries and share market related information.

14. **e-Choupal –** An initiative by ITC provides alternative marketing channel and provide information to help farmers overcome various challenges faced by them in practicing agriculture. Under the initiative, a kiosk equipped with computer with internet access and managed by trained sanchalak is established at village level. The sanchalaks using the village internet kiosks provide access to information on parameters like weather forecast, Mandi prices, share good agricultural practices and risk aversion strategies. It

also facilitates the sale of farm inputs and purchase farm produce from the farmers' doorsteps. e-Choupal provide information on market related aspects on real time basis and farmer specific customized knowledge. This enables farmers to decide at right time matching the requirements of farm produce in the local market. The aggregation of the demand for farm inputs from individual farmers gives them access to high quality inputs from experienced and reputed manufacturers at fair prices.

CHALLENGES FOR DIGITAL MARKETING OF AGRICULTURAL PRODUCTS:
1. Some of the farmers do not have any understanding of computers and are unable to use android mobiles since they do not understand how they work. Therefore, it is possible for there to be problems with them regarding the selling of agricultural goods.
2. Competition on a global scale may be summarized as follows: there are numerous vendors from a variety of geographical locations and nations. Therefore, it is impossible to anticipate the sale of Indian farmers' goods at the appropriate price at the appropriate time.
3. There is no security, and farmers may sometimes visit fraudulent web sites or false internet portals. This will be a waste of both our time and our efforts.
4. One cannot completely rely on online marketing since a large number of buyers still prefer to buy things in person. Therefore, it is vital to rely on offline markets to some degree as well.

ADVANTAGES OF DIGITAL MARKETING IN THE AGRICULTURAL SECTOR:
Digital Marketing plays a vital role in the nation as it has many environmental, social, and economic benefits. It can exceed challenges faced by farmers as well as agroindustries more effectively rather than the traditional method of marketing. Due to the innovation of e-commerce, the transaction mode of agricultural products is improved. It enhances the transfiguration of the whole agricultural marketing sector as it promotes agricultural products to the international market. To market agricultural products, there are two vital aspects 1) Physical mode, which includes processing, packaging, storage, transportation, and selling agricultural products to the market and 2) includes mechanisms of the market price. Digital marketing can improve the function of these processes, and its application helps the farmers and other communities involved in the agricultural sector by creating many opportunities. A few of the benefits are described below:

Market Spread: Digital marketing in the agriculture sector will aid in expanding the market worldwide. Farmers can reach numerous customers in the global market with the help of internet applications. Due to the spreading of internet marketing in the village areas, the farmers can easily receive information about the different agricultural aspects. As the internet is available all time, the farmers can access their marketing process at any time based on their needs. Hence, it allows people to participate in the marketing process at their convenience and provides much information regarding agricultural products, making the whole method more efficient and effective.

Decrement of Cost: Not only carrying out the transportation process of agricultural goods effectively is the main aim of marketing, but it should also keep in mind that the process will be done with less cost. Digital marketing increased the proximity to the global agricultural product market and decreased agricultural goods' transportation costs. In addition, it reduces the supply chain of marketing agricultural goods; therefore, it saves time, and unwanted expenses will also be reduced.

Exclusion of Middlemen: After the innovation of digital marketing, agriculturists and farmers can reach buyers, including dealers, wholesalers, and consumers, directly without the interference of any middlemen. Consequently, farmers can profit more by selling that product, and consumers get the product at an accurate price.

Facile Availability of Scarce Products: Due to the digitalization of the agricultural market, rare products are available in a confined area where those products are not quickly getting the consumers.

CONSTRAINTS OF DIGITAL MARKETING IN THE AGRICULTURAL SECTOR:

Infrastructure Issue: Agriculture is an underdeveloped sector for digital marketing, while another sector has already developed its business strategy digitally. Due to a lack of proper infrastructure, the farmers do not have access to agricultural information. Therefore, it is not always possible for them to sell the products globally.

Connectivity Problem: Connectivity of the network is the important primary tool of any digital marketing sector. Although India occupied the 2nd position in using the network, most rural parts still faced connectivity issues.

Illiteracy Level and Lacking of Digital Skills: The illiterate of rural people is the only major thing responsible for the lower development of digital marketing. According to FAO (2019), poor skills of digital skills and lower e-literacy hamper new technology usage. Therefore, the literacy level should increase among the country's local youths to overcome these issues.

Lack of Awareness: Most farmers are unwilling to shift from traditional farming to modern technological agriculture due to a lack of awareness about digital technology. Due to a lack of information sources, 72% of farmers cannot practice new technology for better productivity. Moreover, the government set up many facilities such as insurance, marketing, and credit facilities for the farmers, but about 40 % of farmers are not able to access these facilities.

SUGGESTIONS:

1. State and Central Governments give adequate training to the farmers about digital marketing tools and techniques, Give awareness campaigns about How to use digital marketing in a effective manner to increase their sales.
2. Governments give a technical and financial support to the young and old farmers to increase their sales and profit through digital marketing. During Covid-19 many farmers are affected because of lack of logistic support. If they do their sales through digital marketing definitely their life style and income will grow.
3. Many of the old age farmers hesitate to adopt digital marketing because of fear and security concerns. So the state governments give a proper awareness to them.

CONCLUSION:

Digital Marketing plays crucial role in Pandemic period. It helpful to the farmers to increase the selling price and reduce the marketing cost of their products. Many young farmers are ready to adopt digital marketing. Central and state governments conduct awareness campaigns about digital marketing to farmers and make a policy towards the sustainable digital agricultural market development.

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A STUDY ON CONSUMER BEHAVIOUR TOWARDS SELECTED FAST MOVING CONSUMER GOODS IN MYSORE CITY

Annapoorna.M.N
Research Scholar, Lecturer, Dept. of Commerce,
Maharani's Women's Commerce and Management College
Paduvaralli, Vinayakanagara, Mysore
anusavi27@gmail.com

ABSTRACT

Many companies are today moving from marketing concept to the customer concept. The companies shape separate offers, services and messages to individual customers, based on their individual preferences. Before formulating a marketing stratategy the marketer need to understand the consumer behavior. The present research work is to study the consumer behaviour towards Selected Fast Moving Consumer Goods (FMCG) in Mysore city. The researcher has analyzed the socio-economic Profile, shopping pattern of consumers and find out the various factors influencing the consumer to purchase the selected FMCG products. The primary data required for the study has been collected through questionnaire.The findings indicate that there is a significant influence of the various factors affecting the consumer buying behaviour towards selected FMCG products. Consumer behaviour doesn't remain the same or constant in every situation it changes from time to time. The recommendations of the study are that, the FMCG companies to hold the top position in the consumer market by providing quality product at reasonable price to consumer. Quality is the main motivating factor for the consumer to buy the product of FMCG. The companies must introduce different, innovative package design and size of the product to attract the customers.

Keywords: *Consumer, Consumer behaviour, FMCG product, Socio-economic profile of consumer, Factors influencing consumer behaviour.*

INTRODUCTION

Consumer is a king in the kingdom of market. To understand his behaviour is very necessary for the marketing man. Consumer is the focus of all the marketing activities. Knowledge of his activities and behaviour is one of the most important aspects of the marketing. The consumers buy the goods to satisfy a number of needs and drives. Human wants are unlimited and varying time to time; from place to place and man to man. The study of consumer behaviour holds great interest for us as consumers, as students and scientists, and as marketers.

Consumer Behaviour is a rapidly growing discipline of study. There are various reasons why the study of consumer behaviour developed as a separate marketing discipline are shorter product life cycles, increased interest in consumer protection, growth in marketing services, growth of international marketing, development of computer and information technology and increasing competition, etc. Consumer behaviour doesn't remain the same or constant in every situation it changes time to time. There are various factors which affects consumer behaviour. As the change comes in these factors, consumer behaviour also changes. Following are the factors which affect consumer behaviour: age, gender, marital status, income, family background, education occupation, family size, geographic factors, and psychological factors.

Consumer Behaviour

The term consumer behaviour is defined as the behaviour that consumer display in searching for, purchasing, using, evaluating and disposing of product, services and ideas that they expect will satisfy their needs. The study of consumer behaviour is the study of

how individual make decisions to spend their available resources (money, time, and effort) on consumption-related items. It includes the study of what they buy, why they buy it, how they buy it, when they buy it, where they buy it, and how often they buy it. Consumer behaviour is the process whereby, individuals decide whether, what, when, where, how, and from whom to purchase goods and services.

In another words, consumer behavior can be define as the behaviour of individuals in regards to acquiring, using, and disposing of products, services, ideas or experiences. Consumer behavior also includes the acquisition and use of information. Thus, communication with consumers and receiving feedback for them is a crucial part of consumer behavior which is of great interest to marketers.

FMCG SECTOR

Products which have a quick turnover, and relatively low cost are known as Fast Moving Consumer Goods (FMCG). FMCG products are those that get replaced within a year. These products are purchased by the customers in small quantity as per the need of individual or family. These items are purchased repeatedly as these are daily use products. The price or value of the products is not very high. These products are having short life also. It may include perishable and non-perishable products, durable and non-durable goods.

FMCG's refers to consumer non-durables goods which is required daily and frequently. These goods have wide range of products such as detergents toilets soap, toothpaste, shampoos, face creams, food products etc. Individually, FMCG's are of small value, but when they put together, they contribute significant part of customer's monthly budget.

FMCG industry alternatively called as CPG (Consumer packaged goods) industry primarily deals with the production, distribution and marketing of consumer packaged goods. These are products that have a quick turnover, and relatively low cost. Consumers generally put less thought into the purchase of FMCG than they do for other products. Though the absolute profit made on FMCG products is relatively small, they generally sell in large numbers and so the cumulative profit on such products can be large. Some of the prime activities of FMCG industry are selling, marketing, financing, purchasing, etc. The industry also engaged in operations, supply chain, production and general management.

Product Characteristics

Products belonging to the FMCG segment generally have the following characteristics:

- They are used at least once a month
- They are used directly by the end-consumer
- They are non-durable
- They are sold in packaged form
- They are branded

MAJOR SEGMENTS OF THE FMCG INDUSTRY
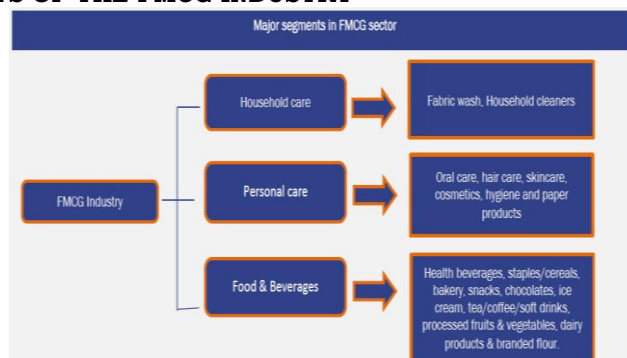
The fast-moving consumer goods (FMCG) sector is an important contributor to India's GDP. It is the fourth largest sector of the Indian economy. The FMCG market is estimated to treble from its current figure in the coming decade. The growing Indian population, particularly the middle class and the rural segments, present an opportunity to makers of branded products to convert consumers to branded products.

REVIEW OF LITERATURE

Srivastava (2013) studied the factors that affect the buying behavior of consumers residing in unauthorized colonies in urban India and it also examined the socio – economic factors, followed by product preferences generic or branded under various heads of FMCG product categories, reasons for such preferences followed by factors affecting the buying behavior. The findings of the study reveal that consumers in such areas prefer brands over generic products. At the same time reliability, product features and socio- economic factors have a large impact on buying behavior along with promotional offers.

JagdishBhagat (2012) analyzed that the consumers are affected from some individual and environmental factors, such as motivation, personality, perception, learning, values, beliefs, attitudes, life style, personal influence, reference group, family influence, social class and culture in their buying decision process. The aim of the study is to focus on affecting factors on the consumer buying behavior in teenager consumer market, because teenager consumers are one of the important market segments of companies.

Deva Prasanna (2013) examined the level of satisfaction of consumers and knowing expectation of the consumers. Indian consumers have a high degree of family orientation with extended family and friends. Brands which support family values tend to be popular and will basically be accepted in the Indian Market. Indian consumers are also associated with values of nurturing care and affection. Products which communicate feelings and emotions will attract the Indian consumers and they also opinion that the consumer behavior is largely affected by place, product, price, promotional, psychological and people influences. The satisfaction level of consumers also depends on product specific and market wide factors. Consumer behavior will improve when their expectations are fulfilled by their distribution channels.

Tauseef Ahmad (2011) conducted the study to find the variables/factors that effects customer impulse buying behavior in FMCG sector considering retail market in India. The impact of various impulse buying factors like sales and promotions, placement of products, window merchandising, effective price strategy etc on customer impulse buying behavior has been analyzed. The results of this research study clearly indicate that there exists a weak association between consumer lifestyle, fashion involvement and post-decision stage of consumer's purchasing behavior with the impulse buying behavior including the attitudinal as well as behavioral aspects of the consumers buying behavior.

Sonkusare.G. (2013) aimed to analyze the Impact of television advertising and on women consumers' buying behavior. Television advertising is a very effective tools of communicating message to its target audience as it has the ability to combine visual & audio communication and thus this makes advertisements is an important medium to make people aware of any products. T.V. advertising has great impact on buying behavior of women customers. Before purchasing any product customers/ consumers collects information for their proper purchasing decision making activities hence advertising is mostly adopted to get information about FMCG products. There are different factors influenced on buying behavior of women consumers in that it has been found that Social and personal factors have more influenced.

According to the study conducted by Sharma.N. (2013) found that all the customers around erode city were satisfied with the FMCG products irrespective of brands. And also they need some improvement in the customer service. Next the Satisfaction level of customers towards the company products revealed the customer needs and the quality of the product they require. Majority of the customers give more preference towards the quality

of the product followed by the price, design, sales and service etc. so it also deals with knowing the customer requirements and their satisfaction towards the FMCG goods.

According to the study conducted by Singaravelu. K. and ChellaDurai (2013) stated that the Indian market is obsessed with international brands and especially, when it comes to the FMCG sector, India is quiet lucky that it has got all the major International Global Brands to its market. However, though India is lucky to have such brands, but the Indian consumer is very choosy in selecting the brands and especially in the consumable sector, where many brands are present, but their future is very uncertain. Indians have upgraded their standards in terms of adopting the global brands, but the consumers mostly evaluate the brands from the perspective of value-for- money criteria.

Jain and Sharma (2012) stated that the Fast Moving Consumer Goods (FMCG) satisfies the elemental and day-to-day household needs and a major portion of the monthly budget of each household is spent on FMCG products. The Socio Economic and Political changes contributed to a great extent for changes in the life styles of countryside people who patronized branded FMCG products. The Government policies to promote education in rural areas enhanced their brand awareness due to the presence of at least one higher education pursuing student in their family or neighboring family. People are not worried about the price of the product. They are showing willingness to spend higher price when they realize that they can afford to spend. Since the usage of branded products of reputed companies will elevate their status as well as stature in that village.

RESEARCH GAP

Most of the studies have been conducted on consumer behaviour towards different FMCG segments. But this study is on consumer behaviour towards selected FMCGs are limited. This study mainly concentrates only on personal care segment products like paste, soap and shampoo and there is a lot of information collected regarding consumer buying bahaviour and satisfaction level towards the selected FMCG products, and its effectiveness.

Personal care belongs to Fast Moving Consumer Goods category under marketing concept. A lot of research is undertaken by many researchers to study consumer behavior towards various FMCG segments, however these goods have instant utility and quick perish ability compared to consumer durables, so it must be understood that there is a lot of research gap in the field of consumer behavior particularly in Personal care FMCG segment.

In order to fill the above said gap to the extent possible, a study is under taken to know Consumer behavior towards selected FMCGs in Mysore city.

SCOPE OF THE STUDY

The study is basically concentrated on the Consumer behavior towards selected FMCGs. The study will be undertaken in Mysore city. The scope of the study is to provide in depth knowledge of the FMCG industry and major segments in FMCG sector to the common people. It helps them to choose while purchasing the selected FMCGs i.e. personal care products. The different personal care key segments that will be covered in the study are oral care, skin care and Hair care products.

NEED FOR THE STUDY

The FMCG sector shows tremendous growth last few years. The spending on FMCG products especially in the urban areas is showing an increasing tendency in the last few years. This is due to increase in income levels, fascination towards foreign culture, increase in the standard living of people, changing life style of people in the urban areas led to the increased usage of FMCG products particularly beauty & health care products in this region. Hence the purpose of this study is to identify the factors that influence on consumer behavior towards selected FMCGs in Mysore city, because consumers of today are more challenging and more quality conscious than earlier.

STATEMENT OF THE PROBLEM

Consumers have already established the basic criteria for evaluating the product category and the various brands in the category. However, they have not fully established

preferences concerning a select group of brands. Their search for additional information is more like fine tuning. They must gather additional brand information to discriminate among the various brands. In some situations, they may search for a small amount of additional information. Keeping in this view, the researcher felt that there is a need to study about consumer behavior towards FMCGs with the following specific objectives.

OBJECTIVES OF THE STUDY
- ➢ To find out the various factors affecting the consumer buying behavior towards personal care products.
- ➢ To identify the level of influence of various factors on the purchase of personal care products by consumers of Mysore city.
- ➢ To analyze the socio-economic profile of the sample respondents.
- ➢ To investigate the behavioural pattern of the consumers, if preferred brand is not available.

RESEARCH METHODOLOGY

The researcher has selected the respondents on the basis of convenience sampling method. A sample of 100 respondents was selected for the study. Primary data is obtained through direct interviews with respondents, with the help of a structured questionnaire designed for the study. The collected data are analyzed through, using available statistical package for social science (SPSS). Percentage Analysis, Chi-square Test is used for data analysis and testing hypothesis.

ANALYSIS AND INTERPRETATION OF DATA

The analysis and interpretation of data is collected through the questionnaire from the respondents. Chi-Square Test used for testing of hypotheses with the help of statistical package for social science (SPSS).

Table 1: General Profile of the Respondent

Sl. No	Particulars	Classification	Frequency	Percentage
1	Gender	Male	40	40
		Female	60	60
		20-30 years	45	45
		31-40 years	41	41
		Above 40years	14	14
3	Qualification	school level	20	20
		Degree/Diploma	38	38
		PG	38	38
		PhD	4	4
4	Occupation	Student	7	7
		Employed	59	59
		Business	3	3
		Homemaker	31	31
5	Monthly income	Up to Rs.5000	15	15
		Rs.5,000 to10,000	11	11
		Rs.10, 000 to 20.000	15	15
		above Rs. 20,000	59	59
6	Family size	Below 3	18	18
		3 - 4	68	68
		4 - 6	10	10
		above 6	4	4
	Total		**100**	**100**

Source: Primary Data

The above table shows that 60% of the respondents are female, majority of the respondents are in the age group of **20-30 years,** 38% of the respondents possess Graduation and post Graduation, 59% of the respondents are employed, most of the respondents earn monthly family income of **above Rs.20000 and** majority of the respondents are belongs to the **family size of 3 to 4.**

Table No 2: Do you think Branded products are better than unbranded product

Opinion	No. of Respondents	Percentage (%)
Yes	91	91
No	9	9
Total	**100**	**100**

Branded Products Are Better Than Unbranded Products
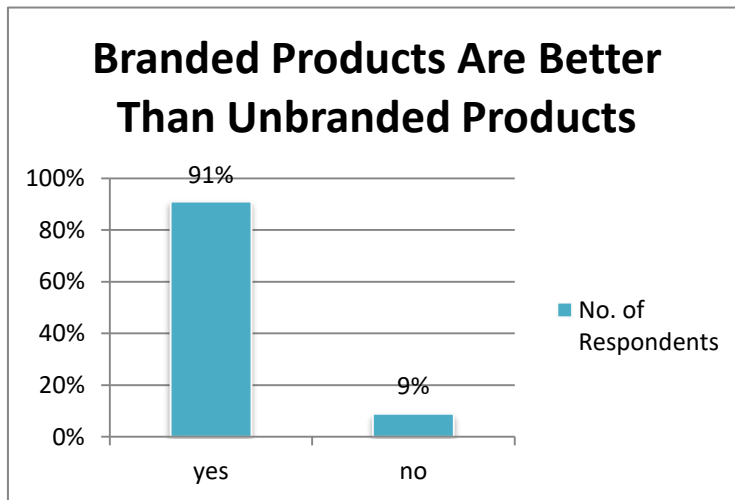
The above table depicts that the 91% of respondents are of opinion that branded products are better and only 9% of respondents are of opinion that unbranded products are better.

Table No 3: Do you like to switch your brand preference if you get some promotional scheme with another brand

Opinion	No. of Respondents	Percentage (%)
Yes	79	79
No	21	21
Total	100	100
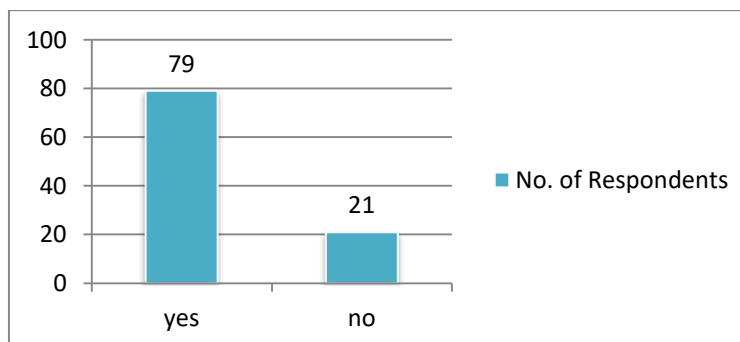
The above table reveals that 79% of the respondents are of opinion that they will choose other brand if they get some promotional scheme and only 21% of the respondents are of opinion that they will not choose other brand if they get some promotional scheme.

Table No 4: Factors Affects To Buy Personal Care Products

Factors	No. Of Respondents	Percentage (%)
Price	20	20
Availability	13	13
Brand Image	16	16
Promotional Offer	5	5
Quality	30	30
Advertisement	16	16
Total	**100**	**100**
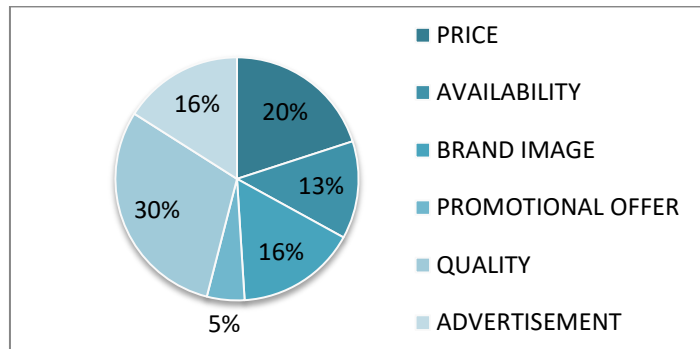
The above table reveals that 30% of the respondents consider Quality as an important factor while buying the personal care products, 20% of the respondents consider price, 16% consider Brand Image and Advertisement, and 13% consider Availability and only 5% consider Promotional Offer.

Table No 5: How long you have been using above stated products

Opinion	No. Of Respondents	Percentage (%)
6 Months	12	12
6 m to 1 y	23	23
1-2 y	16	16
more than 2 y	49	49
Total	**100**	**100**
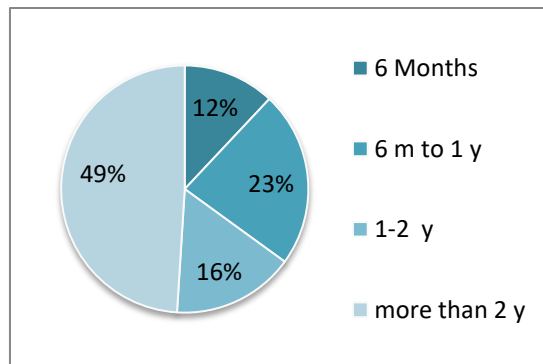
The above table reveals that 79% of the respondents are using personal care products from more than 2 years,23% 6 months to 1 year,16% 1-2 years and only 12% respondents using the personal care products from 6 months.

Table No 6: Source of Information

Source Of Information	No. Of Respondents	Percentage (%)
NEWS Paper	11	11
T.V. Advertisement	34	34
Poster	10	10
Magazines	5	5
Friends & Relatives	40	40
Total	**100**	**100**
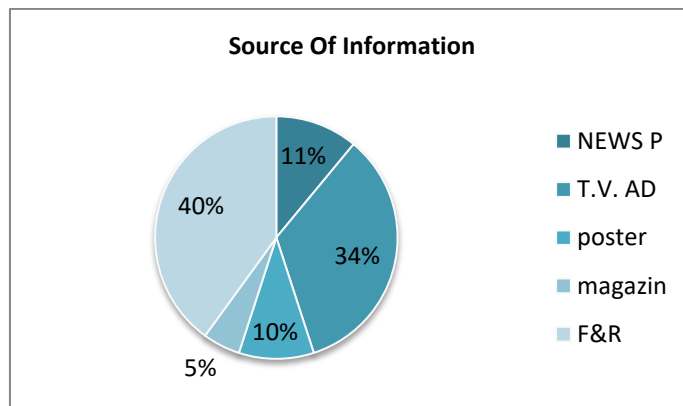
The above table shows that 40% of respondents are aware through friends and relatives, 34% are aware through T.V. Advertisement, 11% are aware through News Paper, 10% are aware through Magazines and only 5% through posters.

Table No 7: Point of purchase of personal care products

Point Of Purchase	No. Of Respondents	Percentage (%)
Departmental Store	15	15
Super Market	23	23
Convenient Store	37	37
Kirana store	25	25
Total	**100**	**100**
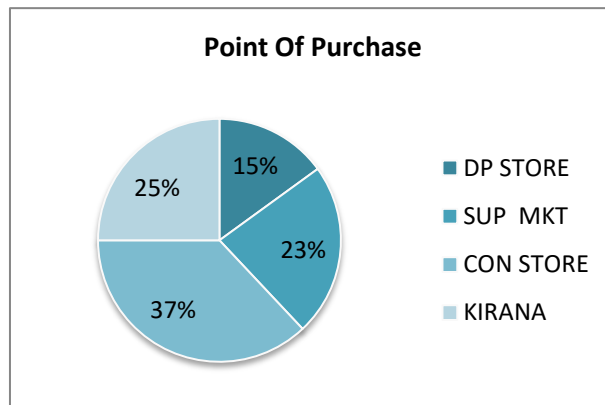
The above table depicts that the 37% of respondents purchase personal care products from Convenient Stores, 25% of respondents purchase from Kirana stores, 23% of respondents purchase from super market and only 15% of respondents purchase from Departmental Store.

Table No 8: Spending On Personal Care Products per Month

Particulars	No. Of Respondents	Percentage (%)
BELOW RS.2,000	67	67
RS.2000-3000	16	16
RS.3000-4000	13	13
ABOVE RS.4000	4	4
Total	**100**	**100**
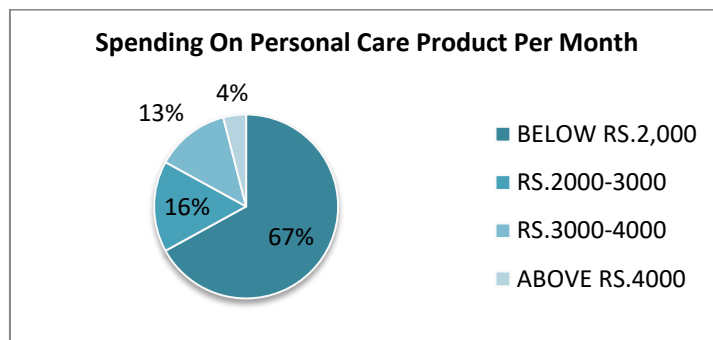
The above table reveals that the 67% of the respondents spends below Rs.2000 for the purchase of personal care products per month, 16% respondents spends Rs.2000-3000,13% respondents spends Rs.3000-4000 and only 4% respondents spends above Rs.4000.

Table No 9: Frequency of purchase of personal care products

Opinion	No. Of Respondents	Percentage (%)
Once In A Week	15	15
Twice In A Week	13	13
Once In A Month	44	44
Twice In A Month	15	15
Frequently	13	13
Total	**100**	**100**
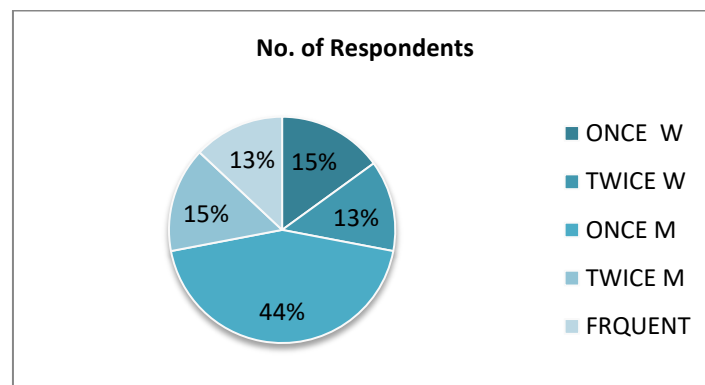
The above table shows that 44% of respondents buy personal care products once in a month, 15% of respondents buy once in a week & twice in a month, 13% of respondents purchase twice in a week & frequently.

Table No 10: satisfaction level of respondents with the variety of personal care products available in the market

Factors	No. Of Respondents	Percentage (%)
Highly Satisfied	31	31
Satisfied	42	42
Neutral	6	6
DIS Satisfied	16	16
Highly Dissatisfied	5	5
Total	**100**	**100**
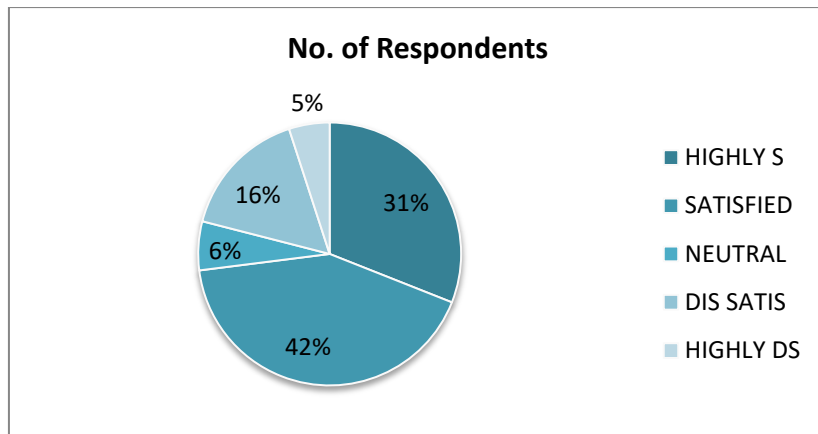
The above table depicts that the 42% of respondents are satisfied, 31% are highly satisfied, 16% are dissatisfied, 6% neutral and 5% are highly dissatisfied.

Table No 11: Respondents opinion to Dissatisfaction

Opinion	No. Of Respondents	Percentage (%)
Poor Quality	3	3
High Price	21	21
No Service	3	3
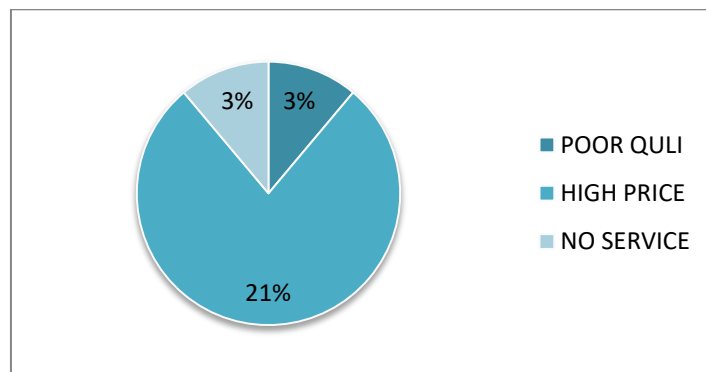
The above table shows that 21% of respondents are feel that the price of the personal care products is high and 3% feel that Poor Quality and No Service.

Table No 12: Factors Help To Build Good Brand Image

Factors	No. Of Respondents	Percentage (%)
Quality	30	30
Communication Strategies	17	17
Competitive Pricing	36	36
Good value added Services	9	9
Free Trail & Discounts	8	8
Total	**100**	**100**
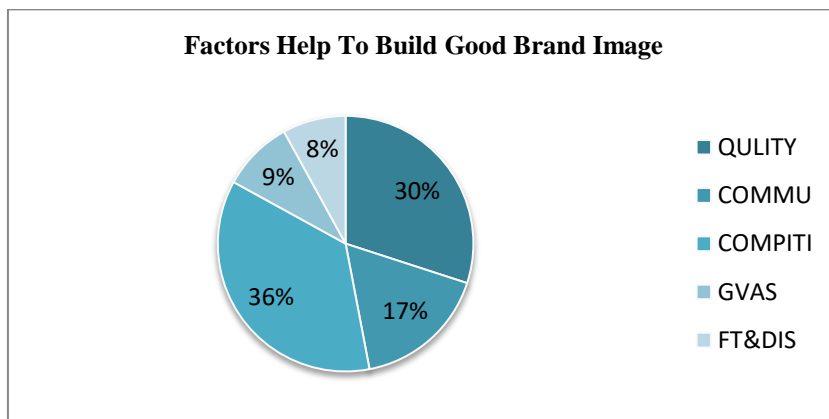
The above table shows that 36% of respondents feel that Competitive Pricing is the highest influencing factor fallowed by Quality with 30%,17% Communication Strategies, 9% Good value added Services and the factor Free Trail & Discounts has the lowest of 8.

Table No 13: while buying personal care products whether you ask for

Factors	No. Of Respondents	Percentage (%)
Particular Brand	51	51
Any Brand	36	36
Specially Priced Product	13	13
Total	**100**	**100**
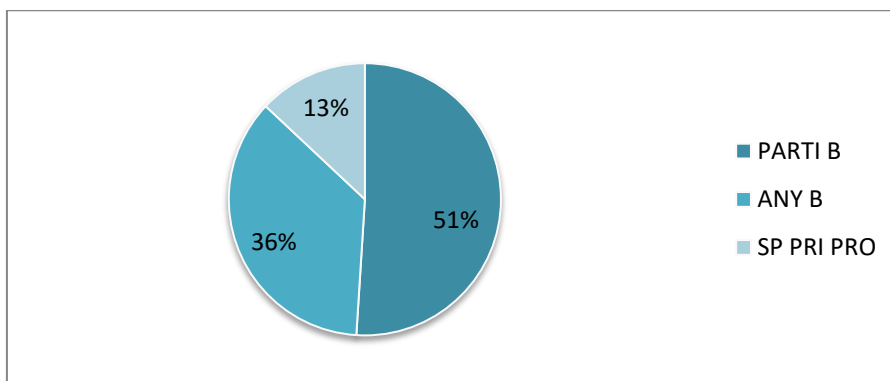
The above table reveals that the 51% of the respondents ask for a particular brand, 36% ask for any brand and 13% ask for Specially Priced Product.

Table No 14: Respondents opinion if preferred Brands are not available

Opinion	No. Of Respondents	Percentage (%)
Alternative Brand	31	31
Buy It In Next Shop	51	51
Buy It In Near Town	18	18
Total	**100**	**100**

Opinion Of Respondents If Preferred Brands Are Not Available
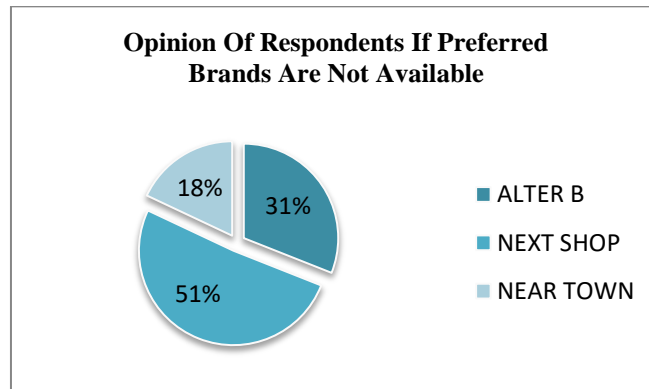
The above table depicts that the 51% of respondents are opinioned that they buy it in next shop, 31% choose Alternative Brand and 18% buy it in near town.

Table No 15: Reasons for buying a particular brand of personal care products

Factors	No. Of Respondents	Percentage (%)
Quality	20	20
Traditional Product/Band	21	21
Quantity	15	15
Locally Popular	27	27
Recommendation By Retailer	5	5
Recommendation By Friends & Relatives	12	12
Total	**100**	**100**

Reasons for buying a particular brand
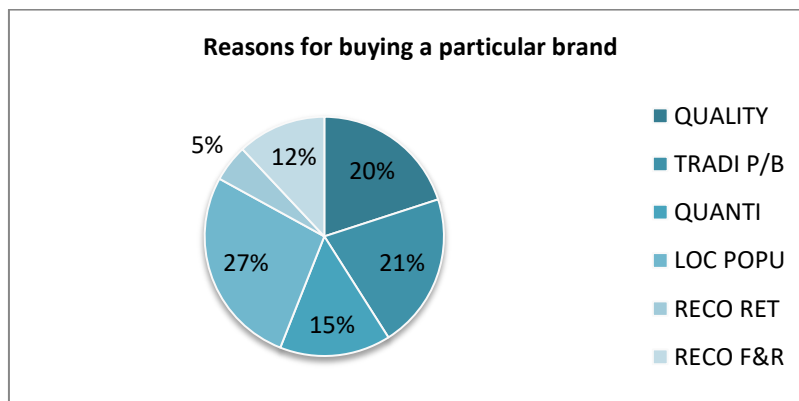
The above table shows that 27% of respondents consider Locally Popular, 21% Traditional Product/Band, 20% Quality, 12% Recommendation By Friends & Relatives and only 5% Recommendation By Retailer.

Table No 16: In What Way Advertisement has influenced you to purchase personal care products

Factors	No. Of Respondents	Percentage (%)
Better Recall	41	41
Better Exposure	22	22
Interest	13	13
Positive Impression	24	24
Total	**100**	**100**

In What Way Advertisement Has Influenced You
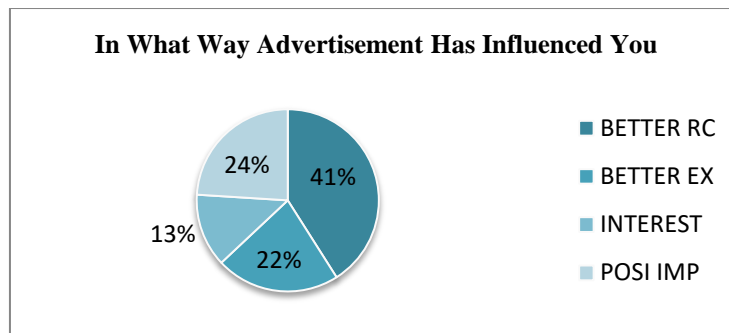
The above table reveals that the 41% of the respondents feel that advertisement acts as Better Recall while purchasing the personal care products, 24% Positive Impression, 22% Better Exposure and 13% interest.

Table No 17: Factors Affects To Purchase Skin Care (Soap), Hair Care (Shampoo) and Oral Care (Tooth Paste) Products

Factors	Skin Care (Soap)		Hair Care (Shampoo)		Oral Care (Tooth Paste)	
	No. Of Respondents	Percentage (%)	No. Of Respondents	Percentage (%)	No. Of Respondents	Percentage (%)
Price	13	13	18	18	9	9
Availability	10	10	8	8	12	12
Brand Image	15	15	30	30	23	23
Promotional Offer	20	20	12	12	38	38
Quality	36	36	24	24	15	15
Advertisement	6	6	8	8	3	3
Total	**100**	**100**	**100**	**100**	**100**	**100**

The above table reveals that in **Skin Care (Soap) products,** 13% of the respondents consider Quality, 20% consider Promotional Offer, 15% consider Brand Image, 13% of the respondents consider price, 10% consider Availability, and only 3% Advertisement

In **Hair Care (Shampoo) Products** 30% of respondents consider Brand Image, 24% Quality, 18% price, 12% consider Promotional Offer, 8% Availability and Advertisement.

In **Oral Care (Tooth Paste) Products** 38% of the respondents consider Promotional Offer, 23% consider Brand Image and 15% consider Quality, 12% consider Availability 9% price, and only 3% consider Advertisement.

TESTING OF HYPOTHESES

Table No 18: Age of the Respondent and in what way advertisement has influenced respondents while purchasing personal care products

The intension of the researcher here is to understand the relationship between age and advertisement influencing on consumer behavior.

To understand the influence of age and advertisement on consumer respondents while purchasing personal care products, the researcher constructed the following hypothesis and used Pearson chi-square analysis to prove or disprove the hypothesis.

(Ho): There is no significant relationship between age and Advertisement on consumer behavior.

(H1): There is a significant relationship between age and Advertisement on consumer behavior.

		In what way advertisement has influenced you?				Total
		Better Recall	Better Exposure	Interest	Positive Impression	
Age of the Respondent	21 to 30 Years	41	4	0	0	45
	31 to 40 Years	0	18	13	10	41
	Above 40 Years	0	0	0	14	14
Total		41	22	13	24	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	128.851(a)	6	.000
Likelihood Ratio	146.564	6	.000
Linear-by-Linear Association	77.639	1	.000
N of Valid Cases	100		

From table 18 it is clearly evident that, 41% of the respondents fell that advertisement acts as better recall while purchasing the personal care products, 24% as positive impression, 22% as better exposure and 13% as interest.

In the age category 41% of 21 to 30 years of the respondents indicate that advertisement acts as better recall and 4% as better exposure while purchasing the personal care products. 18% of 31 to 40 years of the respondents indicate that advertisement acts as better exposure, 13% as interest and 10% as positive impression, while purchasing the personal care products.14% of above 40 years of the respondents indicate that advertisement acts as positive impression while purchasing the personal care products.

The tabulated value of Chi-Square is 128.851 with 6 degrees of freedom with a significance of 0.000 of 0.05 (95% confidence limit) for tabulated relationship. The Null Hypothesis is rejected and the Alternative Hypothesis is accepted.

Thus the researcher can safely infer that **there is a significant relationship between age and Advertisements influencing on consumer behaviour**.

Table No 19: Qualification of the Respondent and the reason for buying a particular brand of personal care products

The intension of the researcher here is to understand the relationship between Qualification and brand awareness influencing on consumer behaviour.

To understand the influence of Qualification and brand awareness on consumer respondents while purchasing personal care products, the researcher constructed the following hypothesis and used Pearson chi-square analysis to prove or disprove the hypothesis.

Ho: There is no significant relationship between Qualification and brand awareness influencing on consumer behaviour.

H2: There is a significant relationship between Qualification and brand awareness influencing on consumer behaviour.

		Give the reason for buying a particular brand of personal care products?						Total
		Quality	Traditional Product /Brand	Quantity	Locally very popular	Recommendation by the retailer	Recommendation by the friends and relatives	
Qualification of the Respondent	School Level	12	8	0	0	0	0	20
	Degree/ Diploma	0	8	12	18	0	0	38
	Post Graduation	8	5	3	9	5	8	38
	Ph.D	0	0	0	0	0	4	4
Total		20	21	15	27	5	12	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	97.654(a)	15	.000
Likelihood Ratio	100.387	15	.000
Linear-by-Linear Association	32.430	1	.000
N of Valid Cases	100		

From table 19 it is clearly evident that 27% of respondents consider Locally Popular, 21% Traditional Product/Band, 20% Quality, 12% Recommendation By Friends & Relatives and only 5% Recommendation By Retailer, as an important factor while buying the particular brand of personal care products.

In the qualification category 12% of school level and 8% of post graduate respondents indicate that they consider "Quality". 8% of school level and 8% of Degree graduate and 5% of post graduate respondents indicate that they consider "Traditional Product/Band".12% of degree/diploma holders,3% of post graduate respondents consider "Quantity".18% of degree holders,9% of post graduates consider "Locally very popular".5% of the post graduates consider recommendation by retailer. 8% of post graduates and 4% of PhD holders consider "Recommendation by friends and relatives" as an important factor while buying the particular brand of personal care products.

The tabulated value of Chi-Square is 97.654 with 15 degrees of freedom with a significance of 0.000 of 0.05 (95% confidence limit) for tabulated relationship. The Null Hypothesis is rejected and the Alternative Hypothesis is accepted.

Thus the researcher can safely infer that **there is a significant relationship between Qualification and brand awareness influencing on consumer behaviour**.

FINDINGS, SUGGESTIONS AND CONCLUSION

Major Findings of the Study

1) Most of the respondents are look for various schemes while purchasing the FMCG Products.
2) 91% of the respondents are of opinion that branded products are better than unbranded products.
3) 79% of the respondents are of opinion that they do not switch their brand, if they get promotional schemes with another brand.
4) Majority of the respondents are of opinion that Advertising does not play any role towards brand preference while purchasing personal care products.
5) 30% of the respondents consider **"Quality"** is an important factor to purchase personal care products.
6) 49% of the respondents using the personal care products **more than 2 years.**

7) **Friends and relatives** are the major awareness creators in the society as per study.

8) 37% of the respondents purchase their personal care products from **Convenient Stores.**

9) 67% of the respondents spend **below Rs.2000** for the purchase of personal care products per month.

10) 36% of the respondents feel that **Competitive Pricing** is the major factor to build good brand image.

11) 51% of the respondents ask **particular brand** while buying the personal care products.

12) Most of the respondents are decides to **buy it in next shop** when preferred Brands are not available.

13) 21% of the respondents consider **Locally Popular** as an important factor while buying the particular brand of personal care products.

14) 41% of the respondents feel that advertisement acts as **Better Recall** while purchasing the personal care products

15) **"Quality"** is an important factor considered by the respondents while purchasing the **Skin Care (Soap) products.**

16) Most of the respondents consider **"Brand Image"** is the important factor considered by the respondents while purchasing the **Hair Care (Shampoo) Products.**

17) Majority of the respondents consider **"Promotional Offer"** is the major factor to purchase **Oral Care (Tooth Paste) Products.**

Suggestions

1) Most of the respondents felt that the price of the personal care products is comparatively high, so the companies can consider these and revise their present price strategy.

2) The companies must concentrate work on giving effective advertisement as this is the important factor in selling their products which the consumers also feel the same.

3) The companies must expand their product line, by giving or introducing innovative products to the customers.

4) Organize promotional schemes for FMCG products like exchange offers, discounted prices, etc because sales promotion schemes increase the company sales in a better way.

5) For improving effectiveness of the scheme the management should focus on proper timing of launching scheme, communication and transparency regarding sales promotion schemes.

6) The companies must introduce different, innovative package design and size of the product to attract the customers.

7) Shoppers lack in communication and providing benefit to the customers regarding sales Promotion schemes. They should be motivated and good relations should be maintained, and they should be provided with proper dealers promotional scheme benefits.

8) The FMCG companies to hold the top position in the consumer market by providing quality product at reasonable price to consumer. Quality is the main motivating factor for the consumer to buy the product of FMCG.

9) The company must take customer feedback, so that it will help in continual improvement and make the company to be in the right track.

CONCLUSION

FMCG sector is growing and will continue to grow very fast. The futures for the FMCG sector look extremely encouraging. The Study shows that the consumers are more

concerned about the quality, brand name and brand benefits of the personal care products purchased by them. Further it was also found that once the consumers found that certain brands are suitable to them, they do not change it easily due to influence of friends/social group and lack of availability of their usual brands. In case of non availability of their personal care brand at the store where they purchase regularly, they often go to another retail store to get their preferred brand and do not compromise easily. This presents a tremendous opportunity for the FMCG markets of branded product.

The study revealed the changing and dynamic consumer behaviour in Mysore city; most of the consumers are influenced by brand and quality in purchase of FMCG. However, a uniform marketing strategies for both rural and urban consumers is not sufficient. Marketers have to frame appropriate marketing strategies according to the present scenario and dynamics of consumer behaviour.

Consumer is the central point of any business and all marketing activities revolve around him. A manufacturer produces what the consumer wants. As the consumer behaviour differs from person to person the producers must understand it. A consumer is one who buys any goods and services by paying its price for consumption. No business activities move in the country without the presence of consumers. The usage of new tools and techniques brought about revolutionary changes in the production of goods. Today the company image is built and made known by its customers. Thus the success of the firm will be determined by how effective it has been in meeting the diverse consumer needs and wants by treating each customer as unique and offering products and services to suit his or her needs.

It is clear from the study that FMCG acquire a major share in the consumer goods market the manufacture as to provide quality goods at reasonable price.

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ROLE OF ETHICS AND MORALITY IN HIGHER EDUCATION

Anuradha .A. S
Assistant Professor
GFGC, Arkalgud
anuradha3139@gmail.com

ABSTRACT

This paper examines that in the life of human beings, Education plays a key role and it is a process that starts from womb and continues till tomb. Education makes a person enlightened and well-mannered. An educated person is a country 's precious property on which it's all kinds of development i.e. economical,social,educational,cultural etc is depended. *Ethics and morality has a great significance in education over the years and recently institutions are creating courses that serve students to understand ethics and morality.* Higher education is also known as leadership education and the moral values practiced in universities heavily influence the future leader as morality refers to personal or cultural value code of conduct or social values. . A good teacher works endlessly to foster the necessary features of students, besides being a source of knowledge and truth and organizer of learning. The only one responsibility of teacher is imparting knowledge or facilitating learning as the characteristics of good teaching include the responsibilities of a teacher. After that comes the Impact of Family, Society and Educational Sector, in molding the personality of the child, the impact of the family and society plays a major role. The behavior of the children should be monitored by their parents. *The present study is focused to know about the importance of ethics and morality in education.*

Keywords : *Role, Higher education, ethics,morality*

Introduction

Higher education is very essential in our day-to-day life. Higher educational institutions include not only universities and colleges but also various professional schools that provide preparation in such fields as law, theology, medicine, business, music, and art further because it also includes teacher- training schools, junior colleges, and institutes of technology. . Moral values and ethics are the key components of a person's character and that they are personality traits guiding people to form decisions and judgements per their own sense of what's right and wrong, supported collective and individual experiences. it's said that students are the longer term of India and this way forward for our country depends greatly upon the values imparted to them during their student life.

THE ROLE OF ETHICS IN EDUCATION

Ethics in education is a very broad term that gives learning experiences to students which is fruitful for them to grow ethically. In education , there are four principles of ethics they are

Honesty:- honesty means being trustworthy,loyal,truthful,sincere,fair etc.which is a very important trait to have in education. The strong bonding of teacher and student in a college always comes from mutual trust and respect. So in the education system students should be provided knowledge along with moralities and ethics and they must guide properly from her childhood to develop honesty among them.

Conflict of Interest :- the conflict of interest may occur when the best and highly preferable interest of a person is not similar or doesn't match the best interest of another individual or organization to which an individual experience loyalty. Therefore students personal interest should be given proper priorities .

Responsibility:- Responsibility is also a very vital and important ethics in education among all other ethics. It is the responsibility of students to show proper respect and careful

manners to their teachers as well as other classmates. Teachers should take strong initiative regarding teaching students about their responsibilities.

Confidentiality:- Confidentiality means not disclosing or revealing one's commitment or information to the unauthorized people and this is also a very important ethics in education. when a student faces any stress, crisis or challenge they seek helps from students affair professionals and it is the responsibility of them to maintain confidentiality about them.

Benefits of Ethics in Education
1. It allows students to develop a solid moral compass that guides them throughout their lives and success journeys.
2. Teaching ethics helps students make good decisions, stand up for their beliefs, and be honest fair in their dealings with others.
3. Helps to create a more civilized society. By teaching children the difference between right and wrong we are helping to create adults who will be more likely to act with compassion and respect for others.
4. Teaching ethics in education can help reduce crime rates.

Moral values in higher education

Morality are a few things that refers to the set of standards that enable people to measure cooperatively in groups. There could also be times when some people argue that breaking the law is that the "moral" thing to try and do and stealing food to feed a starving person, as an example, may well be illegal but it also may be considered the "right thing" to try to if it's the sole thanks to prevent someone from suffering or dying. Sometimes, acting during a moral manner means individuals must sacrifice their own short-term interests to learn society. Individuals who go against these standards could also be considered immoral. Morality isn't fixed. What's considered acceptable in your culture won't be acceptable in another culture.

Developing the moral values of students by a teacher

The teacher's sole responsibility is to impart knowledge within the classroom which most people's think. But imparting knowledge or facilitating learning is just one responsibility of teachers. The characteristics of fine teaching include the responsibilities of an instructor. Besides being a source of data and truth and facilitator of learning, a decent teacher works endlessly to foster the desirable characteristics of scholars. the kids don't have any manners and general sense of what's right and wrong once they are born. Loving parents will teach a toddler the difference between right and wrong and develop other desirable characteristics like manner and honesty. Moral values function a guide in differentiating between right and wrong, right from the start. While we see almost a day that students sometimes can contribute to undesirable behavior like bullying or cheating in exams, they sometimes don't understand the concept of right and wrong.

Impact of Family, Society and Educational Sector

The impact of the family and society play a significant role in beading the character of the kid. a number of the fogeys are unable to create out their valuable time to observe their children and this lack of care of the fogeys make the kid to become easily victims to the excessive usage of Internet and thus leading them to fall prey to cyber-crimes. except for of these things the fogeys should have a daily check at the progress of the kid in their studies contacting the teachers in regular intervals. This constant super vision enables the kid to control their behavior. the following important institution that impacts the kid is that the school and also the teachers. Teachers should set themselves as a job model, rather than practicing the ethics instead of speaking about it.

Conclusion

Thus, it is detected that there is an essential need of modification the ethical and moral construction of education, particularly in higher level, where it refers new executives, academicians, researchers and the creators of society in the days to come. The above study shows evidently an absence of value education in present day education and there is a

sturdy need to revitalize it. Furthermore, where there sometimes these facilities exist, they are just on the papers or just trained to complete out the formalism, i.e., teaching the syllabus and writing out the exams.

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ENTREPRENEURSHIP MANAGEMENT

Prof. Asharani.C
Department of commerce and Management
Government first Grade College Chikkabalapura
Email ID:chandrafeb18@gmail.com

ABSTRACT
This paper contributes to provide us knowledge about entrepreneurship management. The main aim of this paper is know the concept of entrepreneurship management, operations of entrepreneurship management, characteristics, types of entrepreneurship, and roles of government in promoting entrepreneurship, core elements, its role and importance and social and economic environment in entrepreneurial development.
Keywords*: Entrepreneurship management, Concept, Characteristics, types, Essentials, Core elements, importance. Social, and Economic environment in Entrepreneurial development.*

Meaning Entrepreneur

The word entrepreneur has derived from the French word "entrependre" which refers to undertake.

An entrepreneur is "a person who starts a business and is willing to risk loss in order to make money".

Meaning Entrepreneurship

Entrepreneurship refers to all those activities which are to be carried out by a person to establish and to run the business enterprises in accordance with the changing social, political and economic environments.

Entrepreneurship is related with land, labor, natural resources and capital can generate a profit.

Entrepreneurship is the ability and capacity to develop, organize and run a business enterprise, along with any of its uncertainties in order to make a profit.

"Entrepreneurship implies more creative, external or open system orientation. It involves innovation, risk bearing and relatively dynamic leadership'. Therefore

Entrepreneurship management involves combining both the innovative and risk-taking skill spirit of entrepreneurship with the organizational skills of management.

Entrepreneurship management empowers both a visionary entrepreneur and an effective manager, helping to achieve business's success. Entrepreneurial management helps to set structured goals for any new venture. Setting structured goals can help business to move forward.

The following are the operations in Entrepreneurship management.
➢ Finding out the business opportunities,
➢ Creating and implementing new business plans
➢ Setting up goals
➢ Managing resources
➢ Finding out uncertainties to achieve sustainable growth.

Characteristics of Entrepreneurship:
1. **Risk-bearing capacity**: Entrepreneur should have risk bearing capacity. Risk means uncertainty, entrepreneur in his business is full of uncertainty; there may be losses or profit. So, the entrepreneur has the capacity to bear risks and face uncertainties as it is unknown what is hidden being an entrepreneur he should have the characteristics of bearing risk.
2. **Creative Skill**: Entrepreneurship is basically a creativity activity. Entrepreneur searches for new opportunities, new ideas, new techniques etc., He should always

think new creativity and new innovation in his work. As such entrepreneur should have the characteristics of creativity.

3. **Transformation of Resources**: Entrepreneurship transforms materials into "Resource". It converts the raw materials into finished products and sell in market, therefore there is a form of utility.

4. **Innovative skill**: Entrepreneurship is an innovative activity. The entrepreneur adopts new ideas, new techniques, new production system, new management concepts, new markets, new products, and follow new procedures and there by produce product and satisfy consumers, provide better service and provide satisfaction to consumers and earn profits to the enterprise.

5. **Knowledge-based**: Peter F. Drucker says, "Entrepreneurship is neither a service nor an art. It is a practice based on knowledge." The entrepreneur achieves a high place by his knowledge and understanding of thing.

6. **Business-Oriented Mind**: Entrepreneurs by their nature are business oriented and so is entrepreneurship. Entrepreneurship encourages and inspires the people to be an entrepreneur and start a new business enterprise. Entrepreneurship motivates people to more innovate, be creative, search for new business opportunity, establish new business enterprises and makes profit by taking risk.

7. **Entrepreneurial Skills**. Entrepreneurship is not only work, business, or profession it is a life style also. Everyone that is running for their goal. Every entrepreneur should be creative and innovative to achieve his goal.

8. **Professional Activity**: Entrepreneurship is emerging as a profession in developed countries like medical, law and engineering. Entrepreneurial skills are being developed and improved by providing proper training. The governments of developing countries have started programmers and schemes to encourage entrepreneurial aptitude in people and thereby support self-employment. Many entrepreneurial development institutions and centers are being established to provide entrepreneurial training.

9. **Flexible-** An entrepreneur should be flexible and open to change according to the situation. Ready to accept change.

Types of Entrepreneurship:

1. **Small scale Entrepreneurship:** Small business entrepreneurship is defined as an independent or solely owned company that is limited in size and revenue, depending on the industry. This type of entrepreneurship is mostly owned and operated by an individual unlikely to expand the business on a large scale. These companies primarily operate within a local community or region and focus on serving their nearby customers through personalized service and a deep understanding of the local market dynamics.

2. **2.Scalable start-up entrepreneurship:** Scalable start-up entrepreneurship can be defined as a profitable business model that has the potential for significant growth and expansion, with innovative technology or a unique approach to a market need, allowing them to quickly scale and dominate sectors, often transforming or creating entirely new industries.

3. **Big Business Entrepreneurship:** Big Business Entrepreneurship can be defined as a commercial entity that has substantial market influence, extensive resources, and operates in multiple locations. These entities have huge annual revenue and a large number of employees to undertake large-scale projects, influence market trends, and drive significant economic growth.

4. **Social Entrepreneurship**: Social entrepreneurship involves entrepreneurship, where an entrepreneur sets up an enterprise primarily to produce products and services that can be profitable to solve social problems. In simple words, enterprises providing innovative solutions to solve community-based issues fall under social

entrepreneurship. Social entrepreneurship is all about recognizing the social problems and achieving a social change by employing entrepreneurial principles, processes and operation.

5. **Innovative Entrepreneurship**: Innovative entrepreneurship is the process of finding out new ideas for a new business, product, or service. Innovative entrepreneurs always do creative things using new technology, new ideas. They are also called creative entrepreneurs.

6. **Intrapreneurship:** Intrapreneurship is the process of working an entrepreneurial mindset within an established organization. Intrapreneurship grows within company systems that enrich their employees to think of new ways to improve their products, services, or business practices.

7. **Adoptive entrepreneurship**: Adoptive entrepreneurship is the process of trying to adopt new techniques in his process. Adopting new ideas, new technology and new production method in his business.

Roles of Government in promoting Entrepreneurship:

Government plays a very important role in developing entrepreneurship. Government promotes industries in rural and backward areas by providing various facilities with the objective of balances of regional development. Various institutions were set up by the central and state governments in order to achieve this objective.

A. Institutions set up by Central Government

1. **Small industries development organization (SIDO):** SIDO was established in October 1973 under Ministry of Trade, Industry and Marketing. SIDO is playing a very constructive role for strengthening this vital sector, which has proved to be one of the strong pillars of the economy of the country. SIDO also provides extended support through Comprehensive plan for promotion of rural entrepreneurship.

2. **Management development Institute (MDI):** MDI is located at Gurgaon (Haryana).It was established in 1973 It conducts management development programs in various fields. In also includes the programmes for the officers of IAS, IES, BHEL, ONGC and many other leading PSU's.

3. **Entrepreneurship development institute of India (EDI):** Entrepreneurship Development Institute of India (EDI), an autonomous and not-for-profit institute, set up in 1983, is sponsored by apex financial institutions – the IDBI Bank Ltd., IFCI Ltd., ICICI Bank Ltd. and the State Bank of India (SBI).

4. **All India Small Scale Industries Board (AISSIB):** The Small Scale Industries Board (SSI Board) is the apex advisory body constituted to render advice to the Government on all issues pertaining to the small scale sector.

5. **National Institution of Entrepreneurship and Small Business Development (NIESBUD):** It was established in 1983 by the Government of India. It is an apex body to supervise the activities of various agencies in the entrepreneurial development programmes.

6. **National Institute of Small Industries Extension Training:** It was established in 1960 with its headquarters at Hyderabad the main objective is to provide training for various small industries.

7. **National Small Industries Corporation Ltd. (NSIC):** The NSIC was established in 1995 by the Central Government with the objective of assisting the small industries in the Government purchase programmes.

8. **Risk Capital and Technology Finance Corporation Ltd. (RCTFC):** RCTFC was established in 1988 with an authorized capital of 15 crores rupees. The main objectives of RCTFC are provision of risk capital for the extension and expansion of entrepreneurial development.

9. **National Research and development corporation (NRDC):** NRDC was established in 1953 under Department of Science and Industrial Research under Government of India. Main objective is to provide assistance in technology transfer.
10. **Centre for Entrepreneurial Development (CED) Ahmadabad:** Providing training programmes conducting survey and linkage.
11. **Institute for Entrepreneurial Development (IED)**: It was set up by the IDBI in association with other financial institutions, public sector banks and the State Governments.

ROLE AND IMPORTANCE OF ENTREPRENEURSHIP MANAGEMENT

➢ **For effective resource allocation and financial management :** Effective resource allocation and financial management are important for businesses in today's world. Entrepreneurship management guides you in investing time, money, and effort where it will yield maximum productivity and in return gives you good income. This helps you make important decisions.

➢ **It helps create performance standards :** With entrepreneurship management, you set your desired outcomes and timelines, setting as your performance benchmarks. Monitoring progress allows you to create and improve your performance standard.

➢ **For risk assessment and mitigation :** Entrepreneurship management emphasizes assessing and mitigating risks. It involves maintain personal risk with the role within the company, ensuring a prudent approach to risk-taking.

➢ **For reducing the risk :** Entrepreneurship management emphasizes in assessing the risk and reducing the risk. It involves balancing personal risk with the role within the company, ensuring a confident approach in risk-taking.

➢ **For market analysis and strategic planning :** Entrepreneurship management helps in understanding the market and plan it accordingly. Market analysis and strategic planning helps in identify customer needs and preferences, gain competitive advantage and set achievable goals.

Core Elements of Entrepreneurship Management

➢ **Risk assessment and mitigation**
➢ Every entrepreneurial venture carries heavy risks. Entrepreneurship management involves a thorough risk assessment to find out potential obstacles and uncertainties. Once identified, you can develop risk mitigation strategies to minimise and avoid negative impacts on the business.

➢ **Resource allocation**
➢ Entrepreneurship management involves managing scarce resources effectively. It involves proper using and handling of scare resources so that by using time, money, and human capital can maximise output and returns on investment.

➢ **Creative thinking and innovation**
➢ Successful entrepreneurship management is influenced by innovation and creativity, which helps good entrepreneurship management not only think of competition but also satisfying the consumers changing expectation.

➢ **Strategic planning (Goal, Vision, and Growth Plan)**
➢ Strategic planning maps out Entrepreneurial journey. A good plan may be created which includes company's goals, target market, and projected financial results and all these should be described in the strategy which is created.

Social Environment in Entrepreneurial Development

An entrepreneur is born in society and he is a part of our society. He performs different types of activities as a member of the society. Without entrepreneur, the existence of the society is nil. Different social factors, such as, caste, creed, community, religion, family background, social values, ideals, educational, background, occupational back group, customs, traditions, technical development and innovations, motivation, managerial ability, initiative, professional background, training facilities, migration thinking pattern, etc. play

important role in the development of entrepreneurship. Social process effects the habits, outlook, thinking, method of living, the entire development and overall personality of an entrepreneur takes place in the society. Society provides necessary field to the entrepreneur for the development of entrepreneurial qualities, such as, self-confidence, initiative, freedom, desire to earn prestige, use of opportunities, desire for achievements and capacity to face challenges and risks etc.

Economic Environment in Entrepreneurial Development

Economic environment occupies an important place in the entrepreneurial development. Economic environment refers to all those factors which provide necessary resources to the entrepreneur, such as, capital, land, equipment, material, manpower, machinery, building, technical-know-how, market, investment opportunities and other needed inputs. The dependence of trade, business and industry on the economic environment is total. Reduction in the cost of production will lead to wide market and increase in profits. Moreover, economic stability, healthy, competition, sound working conditions, availability of trained labor force, healthy investment and saving environment, stability of prices, availability of cheap finance, high level of income etc. also affects the entrepreneurial development.

Conclusion

Entrepreneurship management emphasizes on strong leadership and effective team management. But then to there is many situations in which being an entrepreneur can be extremely stressful and risky.

It demands leadership, innovative thinking, good social skills and a commercial mindset to keep a business running.

Good leadership and dedicated team can provide us with good and effective entrepreneurship management. Good entrepreneurship management can strongly support and help to build strong nation.

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A STUDY ON IMPACT OF AI ON ONLINE CONSUMER SATISFACTION

Dr. Ashwini. S

Research Supervisor, Vidyavardhaka Research Foundation,
Sheshadri Iyer Road, Mysuru District.
& Assistant Professor, Department of Commerce, GFGC
Talakadu, T Narasipura Taluk, Mysuru District

Anusha M C

Research Scholar, Vidyavardhaka Research Foundation,
& Assistant Professor, P G Department of Commerce,
Vidyavardhaka FGC, Sheahsadri Iyer Road, Mysuru

ASTRACT

E-commerce business has evolved rapidly in past few years. Artificial Intelligence has marked its presence in E-commerce industry. Artificial is personalizing the online shopping experience for the online users. For /retailer, it is acting as medium to improve the sales, deliver better engagement and improve the customer service. The article is mainly focused on the how AI enabled factors affecting the customer satisfaction of online purchasers. Nearly 60 sampling collected for the study. The finding suggest that theirs is a significant influence of AI enabled factors of online shopping such product recommendations, optimization of search engines, websites placement, virtual augmentation has positively impacting on online purchase customers satisfaction.

Keywords: *E-commerce, Artificial Intelligence, factors affecting of online purchase, Customer satisfaction.*

INTRODUCTION

The modern concept of E-Commerce is the process of exchange of goods and services and the transmission of funds and data via internet. It mainly facilitates transactions related of buying and selling activity across the globe, which is mainly focused on holistic dimension model. E-Commerce mainly relies on technology and digital platforms, including websites, mobile apps and social media to make buying and selling possible.

Artificial Intelligence

Artificial Intelligence is an area of technological innovation machine language is designed to think and work like human beings. It includes stages of learning, planning and problem solving.

Influence of AI towards E-Commerce

The global **artificial intelligence in e-commerce market size** surpassed USD 6.63 billion in 2023 and is estimated to attain around USD 22.60 billion by 2032, growing at a CAGR of 14.60% from 2023 to 2032.

Recent Developments

- **In February 2024,** PayPal launched new AI-powered e-commerce inventions. PayPal is testing a series of AI-powered factors to help businesses reach more consumers and make transactions faster.
- **In February 2024,** Vedanta Aluminium has developed an E-commerce platform. The platform provided customers with end-to-end visibility of the products, just-in-time delivery, and real-time AI-based cost discovery from order placement to delivery.
- **In January 2024**, At the National Retail Federation Expo in California, Sales force launched four new AI tools for E-commerce businesses. The four new AI tools include employee productivity, return activities, customer analysis, and

the use of consumer information. The announcement comes on Sales force's searches that AI played an important role in informing customers of purchases during the holiday season.

- **In October 2023,** 10 new artificial intelligence tools for business were released by Square, an online marketplace and point-of-sale platform. These tools are helping to improve the focus and efficiency of growth for small businesses in various sectors.
- **In November 2023,** Amazon launched Q in New York, a business chatbot that uses generative artificial intelligence. The announcement was made at the company's annual conference for its cloud computing service, Amazon Web Services, in Las Vegas, describing the company's response to competitors who have launched chatbots that have caught the attention of customers.

PRECEDENCE RESEARCH

Artificial Intelligence in E-commerce Market

Market Size (USD Bn)
$ 22.60
$ 11.33
$ 6.63
2023   2027   2032

CAGR (2023-2032)
14.60%

Regional Analysis
North America region held the largest market share in **2022.**

Market Drivers
▶ Increasing use of AI-powered chatbots
▶ Rising use of AI in supply chain management

Market Opportunity
▶ Robotic automation impacts e-commerce

Key Players
➢ Amazon Web Services, Inc.   ➢ Microsoft Corporation
➢ Apple Inc.   ➢ Nvidia
➢ Google LLC   ➢ Oracle Corporation
➢ IBM Corporation   ➢ SAP SE
➢ Intel Corporation   ➢ Siemens

Source: Precedence Research

Artificial Intelligence is already indulged in many industries such as social media, mobile applications, televisions, electronic gadgets. One of the most effective industries is E-commerce sector. Artificial Intelligence has made drastic changes in the growth and development of E-commerce globally.

E-commerce business has a new windows grab the attentions of customers through Artificial Intelligence by using Chatbots, virtual assistance, self-generated feedbacks and so on. AI helping out to reach out their target customers, enhancement of customer relationship management, improvising satisfaction levels of customers.

Way by which Artificial Intelligence influence Consumer Buying Behaviour: Search Engines: E-Commerce sites are drastically shifting towards purchase intention and choice model. It creates the link between the buyer and seller globally.

Consumer Loyalty : Appropriate images and postings, will helps to improve their buying habits. With assistance like this, the buyer has little motivation to shop somewhere else next time they need a break.

Convenience of Consumers: AI is opening up a spic and span universe of potential outcomes that will make the shopping experience quite a lot more helpful for the purchaser. This implies organizations need to stay aware of patterns.

Consumer Trust towards Brand: The purchasers trust AI-driven items that customize the experience while offering a massive measure of significant worth.

LITERATURE REVIEW

- **Ayyapparajan & Sabeena (2022)** highlights the position of synthetic intelligence in e-trade and its software in one of kind regions of e-trade. These facts amassed then

shape the premise of making custom designed pointers for every customer. Google and Microsoft are already making an investment into new AI initiatives. Many e-trade companies have commenced imposing one of kind of AI to higher recognize their customers, and offer a greater purchaser experience.

- **Raj et,al., (2023)** assess the importance of synthetic intelligence and its use inside the context of e-trade based totally on available research in this trouble. E-commerce giants are currently focusing aggressively on artificial intelligence technologies and optimizing their trading channels to improve competition. Intelligent robot support campaign from Alibaba and Amazon. Artificial intelligence strategies have joined this fast paced course, with mature technologies, by being more commonly used, having a rising effect on variables such as user engagement and e-commerce sales satisfaction for consumers. As time goes by, the driving force behind the e-commerce transformation would be artificial intelligence.

- **Bansal and Bansal (2023),** examines both the positive and negative effects of AI on consumers' online purchasing decisions. As E-commerce impacts online purchasing behavior in a variety of ways, including the availability of information, convenience, affordability, and usability. Further they conclude that AI has a significant impact on online purchasing behaviour by providing personalized recommendations, better services, fraud detection, and many other benefits.

- **Singh et, al., (2023),** states Artificial intelligence has eased the customer-marketer interaction in online retailing by atomizing the shopping activity with customized recommendations. AI has played a huge role in upgrading the retail business. It was found that AI Based Product Recommendations, Personalized shopping experiences, Instant Interaction and Chatbots positively influence Customer Satisfaction with AI enabled online retailer.

- **Mbaye and Der (2024),** explores the transformative impact of chatbots and artificial intelligence (AI) on customer relations in marketing. Analysis sheds light on the profound changes brought about by these technologies, providing insights into their benefits and implications for marketing professionals. Chatbots, driven by AI algorithms, have revolutionized customer relationships by offering real-time and automated support. Concludes that AI systems identify patterns and trends, helping businesses provide highly personalized and relevant products and services. The implications of chatbots and AI in customer relations extend across various sectors. They streamline customer service processes, reduce costs, and enhance overall efficiency. However, further emphasizes that ethical considerations and privacy issues also arise with their usage, emphasizing the importance of responsible and transparent practices.

OBJECTIVES OF THE STUDY
- To study the role Artificial Intelligence on E-commerce.
- To examine the impact of AI enabled E-commerce on Customer Satisfaction for Online purchase.

RESEARCH METHODOLOGY

The primary data is collected from direct and end user of online retail customers. The research is in quantitative in nature. Size of the Sample is 60 respondents. Statistical tool used for the study is frequency percentage analysis. The research area is restricted to Mysuru city.

Variables used for the study were as follows:
- AI Based Product Recommendations
- Personalized shopping experiences,
- Convenience,
- Instant Interaction and Chatbot and Customer Satisfaction.

ANALYSIS AND FINDINGS
TABLE 1: SHOWING DEMOGRAPIC DETAILS OF RESPONDENTS

SI NO.	PARTICULARS	CATEGORY	FREQUENCY	PERCENTAGE(%)
1	GENDER	MALE	44	73
		FEMALE	16	24
2	AGE	18 – 25	34	54
		26 – 35	24	40
		36 – 45	3	5
		Above 45	1	1
3	EMPLOYMENT STATUS	BUSINESS	16	27
		SELF EMPLOYED	10	17
		SALARIED EMPLOYEE	22	36
		PROFESSION	6	10
		OTHERS	6	10

Source: Primary Data

Interpretation:

The above table indicates the general details of the respondents in which it found that 73% of male and 24% of female are contributing to the total of 60 respondents. Majority of respondents among age category is 18 – 25 of 54%, employment status category is salaried employee of 36%.

TABLE 2: SHOWING AI ENABLED E-COMMERCE FACTORS IMPACTING ONLINE PURCHASE

SI. No.	Statements		SA	A	N	D	SD
AI Based Product Recommendations							
1	I get relevant product recommendations while searching through online	Frequency	17	32	11	-	-
		Percentage	28	53	19	-	-
2	AI based product recommendations provide frequent reminder through Social Media Platform	Frequency	18	31	10	1	-
		Percentage	30	52	17	1	-
3	AI based recommendations optimize my product basket	Frequency	9	36	14	1	-
		Percentage	15	60	23	2	-
Personalized shopping experiences							
1	AI enabled online retail website sends customized discounts and offers	Frequency	14	30	13	2	1
		Percentage	23	50	21	4	2
2	AI enabled online retailers make me feel exclusive	Frequency	14	32	12	2	-
		Percentage	23	53	20	4	-
3	AI enable online retailers reminds me for my own needs	Frequency	8	29	20	2	-
		Percentage	16	48	33	3	-
4	AI enabled online retailers take care of shopping queries on my behalf	Frequency	11	32	15	1	1
		Percentage	18	53	25	2	2
Convenience							
1	AI enabled online retailers saves my shopping time	Frequency	24	23	10	2	1
		Percentage	40	39	16	3	2
2	AI enabled online retailers makes my product search easy	Frequency	19	31	8	1	2
		Percentage	31	51	13	2	3
3	AI enabled online retailers help me searching appropriate product	Frequency	13	28	17	1	1
		Percentage	21	46	28	2	2

4	AI enabled minimizes my shopping efforts	Frequency	14	28	17	1	1
		Percentage	23	46	27	2	2
Instant Interaction and Chatbots							
1	Chatbots are instantly available	Frequency	12	32	15	1	-
		Percentage	20	53	25	2	-
2	Chatbots solve most of the queries	Frequency	14	33	12	1	-
		Percentage	23	55	20	2	-
3	Using chatbots is easier than customer care service	Frequency	11	30	16	2	1
		Percentage	18	50	27	3	2
4	Virtual Assistants are available 24*7	Frequency	18	25	15	1	1
		Percentage	30	41	25	2	2
Customer Satisfaction							
1	My experience of dealing with AI enabled online retailers has been good	Frequency	16	29	13	1	1
		Percentage	26	48	21	2	2
2	I trust AI-driven items that customize the experience	Frequency	10	33	15	2	-
		Percentage	17	55	25	3	-
3	Overall, I am satisfied with my shopping from an AI enabled Retailer	Frequency	15	27	18	-	-
		Percentage	25	45	30	-	-

Source: Primary Data

Interpretation:

The above table shows that all the above factors namely AI based Product recommendations, personalized shopping experiences, convenient and instant   interaction and Chatbots have positive influence on overall satisfaction of online customer towards E-Retailers.

CONCLUSION

In recent days AI has become as one of the important instrument in development of the E-commerce. It acts as a catalyst between online customers and online business. It looks after the overall needs of the current demands from the point of purchase to post sale services of online customers. It helps to study the ever changing buying behavior pattern of customers. It works both in front end and back end of the whole business operational activities. The article has showcased the different AI enabled factors impacting on the customer satisfaction towards online purchase. In the E-retail domain, AI has already proving as a greater advantage for retailers for encouraging more participation in the E-commerce business platform. By optimizing the E-retail business AI brings more virtual needs to their segmented customers.

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INFLUENCE OF ANTHROPOMETRIC VARIABLES ON PERFORMANCE OF KABADDI PLAYERS

Dr. Bhavya
Physical education teacher
Govt. High School, Mahadevapura Bore, Srirangapatna

ABSTRACT

The purpose of the present study was to find out the influence of Anthropometric variables on performance of secondary school female kabaddi players. To accomplish the purpose 60 female kabaddi players were randomly selected from Mandya district who represented their school/ talluk at district level competition. The subject's age ranges between 14-16 years. The subjects were tested with standard testing procedures and performance rating was done by three expert judges. Within Ex-Post facto research design the data had been calculated through standard procedures like Mean, Sd and 't' test was used correlate the performance with selected variables. Regression equation and stepwise multiple regression was used to find out the influence of selected variables on performance. The study revealed that 1) among four selected Anthropometric variables, body weight, leg length and arm length were significantly related to performance of kabaddi players. However, Height and performance of kabaddi players were not significantly related to each other. 2) Of the four Anthropometric variables, only two variables viz. Arm length and body weight were found to have best influence on the performance of Kabaddi players.

Keywords: *Kabaddi, Anthropometric, female, height. Mean, performance.*

INTRODUCTION

Sports and physical education plays an important role in human resource improvement. Games and outdoor activities, properly planned and executed promote social harmony, discipline and increased productivity. These activities build right attitudes and values among students and help them grow into balanced and healthy citizen and sport is a human activity involving specific administrative organizations and historical background of rules. Sport involves competition or contest and a definite result that is primarily determined by physical skills.

In modern society, sports can be argued that it is a continuous social investigate in which mankind shows potential, gathering and refining human resources. Sports by accomplishing progressive, instructive, devoted, communicative function, incorporates and coordinates individuals and helps the nation to progress. The principles of sports is directly connected with health, science, attitude and education. Sport has a vital influence on socio-economic and political processes of modern society.

Origin of Kabaddi

The origin of kabaddi game lies in remote antiquity. In the pre independent India it was familiar in different regions. Never the less, different formats prevailed and were also called by different names such as du-du, chadu-gudu, kaun bada, Hu tutu etc. The popular formats of the game were Amar, Gemini and Sanjeevini.

Amar kabaddi is exactly means unbeatable. This is a form of kabaddi which is played based on points scored by both sides and the play field has no exact measurements and the team comprises of 9 to 11 players. This form of kabaddi had no out and revival system and no lona points but time was the deciding factor. The main characteristics of this game were that the players remain in the court during the course of the match to give their best performances.

In the Gemini form, the game was played with nine players on either side of the court and has no specific measurements. The main characteristics of this form were

that the player who put out was remains out until all his team players were out. The team which was successful in putting out all the opponent players secures a point and after all the players were put out, the team revived and the game continues until five or seven lona's secured. The game had no fixed time. The main drawback of this form of form was that the player was not able to give his best performance during better part of the match as he was likely to remain out until a lona secured or lost.

Another form of kabaddi was sanjeevini kabaddi, almost resembles the present form. In this form the players were put out and revived, the duration of the game was 45 minutes which divided into two halves of 22 and half minutes with five minutes break in between. The team that secures a lona scores four extra points and it will be added to that team and the team that scores maximum points at the end of specified time become the winner of the match.

Anthropometry

Anthropometry is a method of anthropology that refers to the testing and evaluating the human body and the relationship between sizes of its individual parts. Measures are the distance between some points on the body and the angles produced by a certain planes and the axes of the body (goniometric measurements). Anthropometry is as accurately as possible quantitatively characterize the morphological features of human body.

Importance of Anthropometry

Anthropometric and physical characteristics might be regarded as the major determining factors for successful participation in any of the sporting events. It can be acknowledged that anthropometric characteristics can influence sports performance in some way, at the same time aiding to define a suitable physique for a certain sport. The study of 'Body type' has a major place in the field of sports. Anthropometric measurements discovered the relationship between body structure, physical characteristics and sport performance.

Research findings shows that performance in kabaddi is significantly related to body weight, arm length, thigh and calf girths. Further it has been revealed that moderate positive correlation between thigh circumference and fitness constituents such as speed, strength and endurance and adverse relationship between abdomen circumference and said fitness components. However, fitness constituents are the principal requirements for enhancement of performance.

Relationship between Anthropometric Characteristics and kabaddi performance.

The anthropometric characteristics such as height, leg length, arm length and the ideal weight might have a positive advantage on performance of kabaddi. Specifically the length of some individual body parts are of significant benefit in particular sporting events such as kabaddi, volleyball, basketball etc.

Anthropometric factors and morphological characteristics can influence the efficiency of physical, physiological and psychological responses; it has been observed in other sports (Deng, lin, Xia, Cheng, 1990). Therefore, anthropometric profiles might be helpful to understand the requirements of kabaddi players at elite level. Anthropometric studies done previously in the field of sports have suggested that body structure and morphological characteristics can become the major criterion measure in the selection of players in many sports, as the certain physical factors comprising body composition (body fat, body mass, muscle mass) and physical structure (somatotype) can considerably influence athletic / sport performance (Carter,1984). The knowledge of physical requirements of kabaddi players could provide insight into those factors which influence the performance of players in game situations. Anthropometric characteristics majorly influence kabaddi performance, this is because kabaddi is a combative team game requiring specific physique with a high standards of strength and power.

The selection of a player to implement the game plan in competition involves the consideration of anthropometric characteristics of a player as successful performance in sports at elite depends on many factors / parameters such as anthropometric, physical, physiological, psychological parameters and also many other factors. In kabaddi game body size, shape and body composition play a dominant role in providing distinctive advantages for overall good performance which also include the level of skill, flexibility, endurance and most importantly the specific use of anthropometric measurements which plays a vital role in game performance. Since successful performance in the game depends on the individual performance of players and fits into the whole team performance thus creating a coherent team. Kabaddi is one of the technical team game and performance ability between players are different.

OBJECTIVES OF THE STUDY
1) To examine the influence of selected Anthropometric variables on performance of secondary school female kabaddi players.
2) To identify the major factor among anthropometric variables which have great influence on the performance of secondary school female Kabaddi players.

DELIMITATIONS
1) The present study was delimited to the performance of secondary school female kabaddi players of Mandya district.
2) The study comprises the sample size of 60 female kabaddi players.
3) The study was delimited to the Kabaddi players represented their respective schools / talluk at the district level competitions conducted under the department of public instruction.
4) The study was delimited to age of the players ranging from 14 to 16 years.
5) The study was delimited to selected anthropometric variables viz., height, body weight, arm length and leg length.

LIMITATIONS
1) The difference in performance among players due to participation in tournaments, sports training, regular practice and past experience were not taken into consideration hence they were considered as the limitations of the study.
2) The factors like food culture, life style, climatic conditions and other environmental factors which cannot be controlled and might have influenced the results of the study and hence considered as the limitations of the study.
3) The students from different social, cultural and economic background were considered as the limitations of the study.
4) There were no specific motivational techniques employed to the subjects to get the maximum performance during testing was considered as another limitation.
5) The performance of the players was analyzed by the subjective rating by the experts was considered as the limitation of the study.
6) The study was confined to the district level participation of the players not to their performance and training age.

HYPOTHESES
The researcher framed the following hypotheses to accomplish the purpose of the present study
H1: There was no significant correlation between selected Anthropometric variables and performance of Secondary school male kabaddi players.
H2: All the selected anthropometrical variables were equally influence the performance of secondary school male male kabaddi players.

SIGNIFICANCE OF THE STUDY

1. The present study might be helpful for the Coaches, Trainers and Physical Education Teachers to understand the dominant factors that indicate Kabaddi performance at secondary School level.
2. The study may be helpful to identify the potential secondary school players based on anthropometrical, physical, physiological and psychological characteristics.
3. The study may be helpful to identify the potential secondary school female players based on anthropometrical characteristics.
4. From the practical viewpoint, the results of the study will be helpful for trainer and coaches to adjust training schedule and contemplate on the anthropometric variables that contribute to performance and achieve success in the game of Kabaddi at secondary School level.
5. The study will be helpful for physical education teachers and coaches to find the influence of Anthropometric, physical, physiological and psychological characteristics on overall playing ability of kabaddi players.

METHODOLOGY

Within ex-post-facto research design, the normative survey method was used to collect the data. The sample for the present study was selected through random sampling technique. Total 60 High school female kabaddi players from Mandya disrict (N = 60)

PERFORMANCE RATING

The total performance of each subject was estimated through subjective rating by three expert coaches based a 10 point rating scale during the playing situation. This was considered as the dependent variable for the study.

Statistical Techniques Employed.

The collected data had been tabulated and analyzed with the help of statistical techniques viz. descriptive statistics such as mean, standard deviation.

1. The karl pearson's correlation coefficient method was applied to find the correlation between the variables with performance of kabaddi players. Further, obtained values were tested for significance using t-test based on r-value.
2. The multiple linear and stepwise liner regression model was applied to find the significant predictor of performance among the selected variables.

SELECTION OF SUBJECTS

The subjects for the present study were

*   Female subjects only
*   Age of the subjects ranges between 14 to 16 years.
*   Participated in the district level kabaddi competition.

The subjects selected for this study were selected from Mandya districts secondary schools who represents their school or talluk at district level competition organized by Department of Public Instructions.

The teams who qualified from pre-quarter final onwards at district level tournament were selected as subjects.

SELECTED ANTHROPOMETRIC, VARIABLES FOR THE PRESENT STUDY ARE PRESENTED BELOW

Sl.No.	Variables	Test/ Equipment Used	Measuring Units
1	Height	Stadiometer	Centimeter
2	Body Weight	Weighing Machine	Kilogram
3	Arm length	Flexible tape	Centimeter
4	Leg length	Flexible tape	Centimeter

PERFORMANCE RATING

The total performance of each subject was estimated through subjective rating by three expert coaches based on a 10 point rating scale during the playing situation. This was considered as the dependent variable for the study.

ORIENTATION OF THE SUBJECTS

In order to ensure full co-operation from the subjects, the researcher explained to the subjects the purpose of the study, tests to be administered and procedures to be followed in the administration of the test.

COLLECTION OF DATA

The collection of data was completed during morning hours on two different days with the help of physical education teachers and coaches in their respective schools. The selected study variables were measured as per the standard testing procedures and instructions available in the literature and the data with respect to the performance of subjects were collected in numerical form from the expert's rating. All the data were in numerical form.

Statistical Techniques Employed.

The collected data had been tabulated and analyzed with the help of statistical techniques viz. descriptive statistics such as mean, standard deviation.

1. Karl Pearson's correlation coefficient method was applied to find the correlation between the variables with performance of kabaddi players. Further, obtained values were tested for significance using t-test based on r-value.
2. The multiple linear and stepwise linear regression model was applied to find the significant predictor of performance among the selected variables.

Correlation between Anthropometric variables and performance of Secondary school female kabaddi players

Anthropometric variables	Performance	Coefficient correlation 'r' value	P-value	Interpretation
Height (in cms)	Performance	0.0801	0.3261	Not significant
Body weight (in kgs)	Performance	0.3787	0.0001	Significant
Arm length (in cms)	Performance	0.5572	0.0001	Significant
Leg length (in cms)	Performance	0.2371	0.0062	Significant

The above table shows the bi-variate correlations between performance and anthropometric variables. It shows the significant relationship between the anthropometric variables and performance of Kabaddi.

It clearly shows that,

- Height and performance scores of Secondary school female kabaddi players were poorly, positively correlated and statistically not significant at 0.05% level of significance (p=0.3261) and Pearson correlation coefficient value is 0.0801, which implies that the 8.01% of the performance can be explained using the Height . Hence, the Height and performance scores of Kabaddi Players were independent of each other.
- Body weight and performance scores of Kabaddi Players were weak, positively correlated and statistically significant at 0.05% level of significance (p=0.0001) and Pearson correlation coefficient value is 0.3787, which implies that the only 37.8% of the performance can be explained using the Body weight. Hence, the Body weight and performance scores of kabaddi players were dependent on each other.
- Arm length and performance scores of Secondary school female kabaddi players were highly, positively correlated and statistically significant at 0.05% level of significance (p=0.0001) and Pearson correlation coefficient value is 0.5572, which implies that the 55.72% of the performance can be explained using the

Arm length. Hence, the Arm length and performance scores of kabaddi players were dependent on each other.

- Leg length and performance scores of Kabaddi Players were moderately, positively correlated and statistically significant at 0.05% level of significance (p=0.0063) and Pearson correlation coefficient value is 0.2371, which implies that the 23.71% of the performance can be explained using the Leg length. Hence, the Leg length and performance scores of kabaddi players are dependent on each other.

Results of multiple regression analysis with un-standardized Coefficients, standardized Coefficients and t values for the models predicted (Anthropometric variables)

Anthropometric variables	Un standardized Coefficients		Standardized Coefficients	t-value	p-value
	B	Std. Error	Beta		
Constant	-8.1992	3.0008		-2.7323	0.0073,S
Height (in cms)	0.0038	0.0134	0.0217	0.2850	0.7761,NS
Body weight (in kgs)	0.0747	0.0327	0.1881	2.2842	0.0242,S
Arm length (in cms)	0.1305	0.0232	0.4699	5.6309	0.0001,S
Leg length (in cms)	0.0183	0.0166	0.0856	1.0982	0.2744,NS
R=0.6026, R²=0.3632, Adjusted R²=0.3411,F(4,115)=16.401 p<0.05,S, Std.Error of estimate: 0.74971					

From the results of the above table, it can be seen that,

- The joint or combined effect of Height on performance of kabaddi players was found to be positive and statistically not significant (regression coefficient=0.0038±0.0134, p=0.7761) at 5% level of significance. It means that the performance of kabaddi players was not influenced by Height.
- The joint or combined effect of Body weight on performance of kabaddi players was found to be positive and statistically significant (regression coefficient=0.0747±0.0327, p=0.0242) at 5% level of significance. It means that the performance of kabaddi players was influenced by Body weight.
- The joint or combined effect of Arm length (in cms) on performance of kabaddi players was found to be positive and statistically significant (regression coefficient=0.1305±0.0232, p=0.0001) at 5% level of significance. It means that the performance of kabaddi players was influenced by Arm length.
- The joint or combined effect of Leg length on performance of kabaddi players was found to be negative and statistically not significant (regression coefficient=0.0183±0.0166, p=0.2744) at 5% level of significance. It means that the performance of kabaddi players was not influenced by leg length.

Therefore, the multiple linear regression equation for prediction of performance of Secondary school female kabaddi players(Y) in terms of Height, Body weight, Arm length and Leg length were found to be under:

Performance (Y) = -8.1992+0.0038*Height (in cms) + 0.0747*Body weight (in kgs) +0.1305*Arm length (in cms) +0.0183*Leg length (in cms)

The multiple R of the linear regression equation was 0.6026. For testing multiple correlation coefficients, the F-ratio (v, p<0.05) was found to be significant at 5% level. Thus, the null hypothesis was rejected and an alternative hypothesis was accepted. Significant R suggests that estimation of performance of Secondary school female kabaddi players was possible on the basis of the predictor's i.e. Height, Body weight, Arm length and Leg length. Further, the regression equation shows that Height, Body weight, Arm length and Leg length can be used to find the performance of Secondary school male kabaddi players.

The coefficient of multiple determination of R^2 was 0.3632. Therefore, it can be said that nearly 36.32 percent of the variation in performance of Secondary school female kabaddi players for whatever is measured Height, Body weight, Arm length and Leg length were taken together. The SE_{est} for the regression equation is 0.7497. This means that each time the regression equation for the sample is used to predict performance of Secondary school female kabaddi players by ±0.7497.

The relative contributions of anthropometric variables on performance of kabaddi players in terms of proportions of variance influenced by each were determined and were given in the following table.

Relative contribution of anthropometric variables on performance of kabaddi players

Anthropometric variables	r-value	Beta	r x beta	% of contribution
Height (in cms)	0.0902	0.0217	0.0020	0.20
Body weight (in kgs)	0.3887	0.1881	0.0731	7.31
Arm length (in cms)	0.5681	0.4699	0.2669	26.69
Leg length (in cms)	0.2483	0.0856	0.0212	2.12
Total				36.32

The evident from the above table that 36.32 percent of variance in the criterion variable is accounted for by variance, in which 0.20 percent in the Height , 7.31 percent in the variable Body weight , 26.69 percent in the variable Arm length and 2.12 percent in the variable Leg length on performance of kabaddi players. Thus, it seems that the Arm length was a better predict / influence the performance of Secondary school female kabaddi players than Height, Body weight and Leg length.

Further, to find the final significant predictors among Anthropometric variables on performance of kabaddi players, the stepwise regression analysis was performed and the results are presented in the following table.

Results of step-wise regression analysis with un-standardized Coefficients, standardized Coefficients and t-values for the models predicted (Anthropometric variables)

Model	Anthropometric variables	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value
		B	Std. Error	Beta		
1	(Constant)	-3.5310	1.5830		-2.2310	0.0280,S
	Arm length	0.1580	0.0210	0.5680	7.4980	0.0001,S
2	(Constant)	-6.4600	1.9580		-3.3000	0.0010,S
	arm length	0.1360	0.0220	0.4910	6.0970	0.0001,S
	Body weight	0.0780	0.0320	0.1970	2.4500	0.0160,S
Dependent Variable: Performance						

The above table represents the results of stepwise regression analysis with un-standardized Coefficients, standardized Coefficients and t values for the models predicted (Anthropometric variables). It clearly shows that,

- Only one anthropometric variable i.e. Arm length was included in the first predicted model. The standardized coefficient (i.e. beta) of Arm length was 0.5680. The un-standardized coefficient (i.e. B) of Arm length was found to be 0.1010 and statistically significant with p value 0.0001. It means that the Arm length influenced the performance of kabaddi players and was found to be a significant predictor.

- Two anthropometric variable i.e. Arm length and Body weight is included in the second predicted model. The standardized coefficients (i.e. beta) of Arm length and Body weight respectively are 0.4910 and 0.1970. The un-standardized coefficient (i.e. Beta) of Arm length and Body weight were found to be 0.1360; 0.0780. The influences of these variables on performance were found to be statistically significant with p value 0.0001. It means that, the combined effect or influence of Arm length and Body weight on performance of kabaddi players was significant. It means that they were significant predictors/influencers of performance of kabaddi players. Therefore, we suggested and concluded that, in future the prediction/ influence of performance of Secondary school female kabaddi players, the following equation can be used and was given by

Performance (Y) = -6.4600+0.1360* Arm length (in cms) + 0.0780* Body weight (in kgs) All the Anthropometric variables were equally influence the performance of kabaddi players.

Variables entered in stepwise multiple regression taking Performance as dependent variable and anthropometric variables as independent variables

Model	Variables entered	R	R Square	Adjusted R Square	F-value	p-value
1	Arm length (in cms)	0.5680	0.3230	0.3170	56.2250	0.0001,S
2	Body weight (in kgs)	0.5960	0.3560	0.3450	32.3070	0.0001,S

Stepwise (Criteria: Probability-of-F-to-enter <= 0.050, Probability-of-F-to- remove >= 0.100).

Regression analysis for the prediction of total Performance considering as major dependent variable and anthropometric variables as independent variables, revealed the following results. Of the 4 anthropometric variables entered into the equation, only two variables, i.e., Arm length and Body weight were found to be influence the game performance of Secondary school female kabaddi players. The first variable to enter into the equation was Arm length with the correlation coefficient of 0.5680 and R^2 value of 0.3230. The adjusted R^2 value was found to be 0.3170. In the second step, Arm length as an anthropometric variable predicted the performance of kabaddi players along with Body weight. The Obtained combined correlation coefficient was 0.5960 and R^2 value was 0.3560 with adjusted R^2 value of 0.3450. In other words, all the two anthropometric variables variables- Arm length and Body weight were predicted the performance to an extent of 34.50%. Rest of the contribution was unaccounted for. The stated hypothesis is partially rejected for the said variables.

CONCLUSIONS

The purpose of the present study was to find the influence of selected anthropometric variables on performance of Kabaddi players among secondary school female kabaddi players.

The following conclusions were drawn from the present study:

1) Among selected Anthropometric variables, body weight, leg length and arm length were significantly related to performance of kabaddi players. However, Height and performance of kabaddi players were not significantly related to each other.
2) Of the four Anthropometric variables, only two variables viz. Arm length and body weight were found to have best influence on the performance of Kabaddi players.

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THE ROLE OF CLASSICAL LANGUAGES IN THE FORMATION OF INDIAN SOCIETY

Dr Chaluvaraju
Associate Professor
Department of Kannada
Government Arts College, Bangalore

ABSTRACT

This article explores the profound influence of classical languages on the formation and development of Indian society, encompassing various dimensions such as literature, religion, philosophy, art, and education. Beginning with an overview of languages like Sanskrit, Tamil, Telugu, and Kannada, it delves into their roles as repositories of ancient wisdom and knowledge, transmitting insights and cultural values across generations. The article examines the literary legacies of these languages, highlighting seminal works such as the Vedas, Upanishads, Sangam poetry, and Sanskrit dramas, which continue to shape the cultural and artistic expressions of India. Moreover, it elucidates how classical languages have been instrumental in the development and dissemination of religious and philosophical ideologies, fostering spiritual growth and cultural cohesion. The educational significance of classical languages is also discussed, tracing their historical association with ancient centers of learning like Nalanda and Taxila, and their enduring relevance in contemporary scholarship. Finally, the article emphasizes the importance of preserving and promoting classical languages as a means of honoring India's rich linguistic heritage, fostering national unity, and ensuring the continuity of cultural traditions for future generations. Through a comprehensive examination of the multifaceted roles played by classical languages in Indian society, this article underscores their timeless significance as pillars of cultural identity and sources of profound intellectual and artistic inspiration.

Keywords: *Classical languages, Indian society, literature, religion, philosophy,*

Introduction:

India's cultural landscape is intricately woven with the threads of its classical languages, which have played a foundational role in shaping the ethos, identity, and social fabric of the Indian subcontinent. Across millennia, languages such as Sanskrit, Tamil, Telugu, Kannada, and others have served as vehicles for the transmission of knowledge, the expression of artistic creativity, and the preservation of cultural heritage. This article delves into the profound influence of classical languages on various aspects of Indian society, ranging from literature and religion to philosophy, art, and education.

Literature, as one of the most enduring legacies of classical languages, offers a window into the collective consciousness of ancient India. Sanskrit, often revered as the language of the gods, stands as the cornerstone of India's literary heritage, giving birth to timeless epics, philosophical treatises, and lyrical poetry. The Rigveda, composed over 3,000 years ago, represents the earliest known literary work in Sanskrit, encapsulating the spiritual beliefs and societal values of the Vedic period. Subsequent literary masterpieces, such as the Mahabharata and Ramayana, continue to resonate with audiences, transcending geographical and cultural boundaries.

Beyond Sanskrit, languages like Tamil, Telugu, and Kannada boast rich literary traditions that reflect the cultural diversity and linguistic plurality of India. Tamil Sangam literature, dating back to the classical period (300 BCE - 300 CE), encompasses a wide range of poetic genres, including love poetry, heroic ballads, and didactic verses. The works of Tamil poets like Thiruvalluvar and Avvaiyar serve as moral compasses, guiding subsequent generations with their timeless wisdom.

Religious and philosophical ideologies have also found expression through classical languages, shaping the spiritual landscape of India. Sanskrit scriptures, including the Bhagavad Gita, the Upanishads, and the Puranas, form the bedrock of Hindu philosophy and theology. These texts expound on fundamental concepts such as dharma (duty), karma (action), and moksha (liberation), providing a framework for ethical living and spiritual growth. Similarly, Tamil devotional literature, exemplified by the hymns of the Alvars and Nayanars, embodies the spirit of Bhakti (devotion) towards deities like Vishnu and Shiva, fostering a deeply personal connection with the divine.

In the realm of art and aesthetics, classical languages serve as sources of inspiration and creativity. Sanskrit dramas, renowned for their intricate plots and poetic diction, have left an indelible mark on Indian theater and performance arts. Works such as Kalidasa's Shakuntala and Bhasa's Swapnavasavadatta showcase the sophistication of Sanskrit dramatic literature, exploring themes of love, betrayal, and redemption. Meanwhile, Tamil literature celebrates the beauty of nature and human emotions, while Telugu and Kannada compositions encompass diverse genres like poetry, prose, and folklore.

Education has historically been intertwined with the study of classical languages, with ancient universities like Nalanda and Taxila serving as centers of learning and scholarship. Sanskrit, in particular, was revered as the language of knowledge, facilitating the study of subjects ranging from philosophy and astronomy to medicine and grammar. The Guru-Shishya parampara (teacher-student lineage) nurtured a tradition of intellectual inquiry and academic excellence, ensuring the continuity of knowledge across generations.

In conclusion, the role of classical languages in the formation of Indian society is multifaceted and profound, permeating every aspect of cultural, religious, and intellectual life. As custodians of this rich linguistic heritage, it is imperative to recognize the significance of classical languages in preserving India's cultural identity and fostering a sense of unity amidst diversity. Embracing and promoting these languages is not merely an academic endeavor but a celebration of India's enduring legacy and cultural vibrancy.

Literature and Knowledge Transmission:

[1]**Classical languages** serve as repositories of ancient wisdom and knowledge. Sanskrit, often referred to as the language of the gods, is the foundation of India's literary heritage. Ancient texts such as the **Vedas**[2], [3]**Upanishads**, [4]**Mahabharata** and **Ramayana** were composed in Sanskrit, shaping the spiritual and philosophical beliefs of generations. Tamil literature, with its Sangam poetry dating back to 300 BCE to 300 CE, reflects the cultural, social, and moral values of ancient Tamil society. These classical texts not only preserve historical narratives but also offer timeless insights into human nature and societal dynamics.

Religious and Philosophical Traditions:

The classical languages of India have been instrumental in the development and dissemination of religious and philosophical ideologies. Sanskrit scriptures like the Bhagavad Gita, the Puranas, and the Sutras have laid the foundation for Hinduism, one of the world's oldest religions. Tamil literature, particularly the devotional poems of the Alvars and Nayanars, has contributed significantly to the Bhakti movement, emphasizing personal devotion to deities. Telugu and Kannada scriptures have enriched the Bhakti tradition with the works of saints like Annamacharya and Basavanna, promoting inclusivity and spiritual equality.

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[1] *Classical languages*

[2] *Vedas*

[3] *Upanishads*

[4] *Mahabharata*

Cultural and Artistic Expressions:
Classical languages serve as mediums of artistic expression, fostering creativity and cultural exchange. Sanskrit dramas, such as Kalidasa's Shakuntala and Bhasa's Swapnavasavadatta, showcase the intricacies of Indian theater and aesthetics. Tamil Sangam literature celebrates the beauty of nature, love, and heroism through poetry and epics. Telugu and Kannada literature boasts vibrant literary traditions, encompassing various genres like poetry, prose, and drama. These linguistic treasures continue to inspire artists, musicians, and performers, enriching India's cultural heritage.

Education and Scholarship:
The study of classical languages has been integral to India's educational system and scholarly pursuits. Ancient universities like Nalanda, Taxila, and Vikramashila were centers of learning where Sanskrit and other classical languages were taught alongside subjects like philosophy, mathematics, and astronomy. The tradition of Guru-Shishya parampara, or teacher-student lineage, facilitated the transmission of knowledge from generation to generation. Even today, institutions like the Rashtriya Sanskrit Sansthan and classical language departments in universities strive to preserve and promote the study of classical languages.

Identity and National Unity:
Classical languages play a crucial role in fostering a sense of identity and national unity among diverse linguistic communities in India. Sanskrit, as a classical language with pan-Indian significance, serves as a symbol of cultural unity and heritage. Efforts to revive and promote classical languages, such as the establishment of classical language academies and the inclusion of classical literature in school curricula, reflect India's commitment to preserving its linguistic diversity and cultural legacy.

Conclusion:
In tracing the intricate interplay between classical languages and Indian society, it becomes evident that these linguistic treasures have left an indelible mark on the cultural, spiritual, and intellectual landscape of the subcontinent. From the profound insights of Sanskrit scriptures to the lyrical beauty of Tamil poetry, classical languages have served as conduits for the expression of human creativity, wisdom, and aspiration.

The enduring legacy of classical languages extends beyond mere linguistic artifacts; it embodies the collective memory and heritage of a civilization spanning millennia. Through the preservation of ancient texts and traditions, these languages bridge the gap between past and present, offering invaluable insights into the ethos and values that have shaped Indian society.

Moreover, the revival and promotion of classical languages are not merely acts of historical preservation but also vital components of cultural revitalization and national integration. By embracing linguistic diversity and celebrating the richness of India's cultural tapestry, efforts to safeguard classical languages contribute to the fostering of a shared sense of identity and belonging among diverse linguistic communities.

As custodians of this rich linguistic heritage, it is incumbent upon us to recognize the significance of classical languages in shaping our collective consciousness and cultural identity. By promoting the study and appreciation of Sanskrit, Tamil, Telugu, Kannada, and other classical languages, we not only honor the legacy of our ancestors but also ensure the continuity of India's cultural legacy for future generations.

In essence, the role of classical languages in the formation of Indian society transcends mere linguistic boundaries; it embodies the soul of a civilization steeped in tradition, wisdom, and artistic expression. By cherishing and preserving these linguistic treasures, we not only pay homage to our past but also pave the way for a future enriched by the timeless wisdom and beauty encapsulated within the words of our classical languages.

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THE IMPACT OF ARTIFICIAL INTELLIGENCE ON LIBRARY AND INFORMATION SCIENCE (LIS) SERVICES

Chandrashekara.G.S
*Librarian, Government first grade college.Kuvempunagar
Mysuru -Karnataka -570023
E-mail.chandrashekarags@rediffmail.com*

Dr. Mallikarjun N Mulimani
*Librarian
Government First Grade College
Bidi, Tq. Khanapur. Dt. Belagavi*

Abstract
The integration of Artificial Intelligence (AI) into Library and Information Science (LIS) services has brought about significant transformations in the way libraries manage and provide access to information. This article examines the impact of AI technologies on various aspects of LIS, including cataloging, information retrieval, user services, and data analysis. AI-driven tools such as recommendation systems, chatbots, and natural language processing have enhanced user experiences by enabling personalized recommendations and efficient information retrieval. Moreover, AI automates routine tasks, allowing librarians to focus on more complex activities like research support and community engagement. Despite these advancements, challenges such as privacy concerns and algorithmic biases must be addressed to ensure responsible AI implementation in LIS (Asim, et. al. 2023). This article discusses key developments, benefits, challenges, and future implications of AI in LIS services, highlighting its potential to enhance library operations and improve information access for diverse user communities.

Introduction to AI in LIS Services

Artificial Intelligence (AI) is reshaping the landscape of Library and Information Science (LIS) by introducing innovative solutions that enhance information management, user experiences, and operational efficiency within libraries and information centers (Mupaikwa, 2025). AI refers to the development of computer systems capable of performing tasks that typically require human intelligence, such as learning, reasoning, problem-solving, and understanding natural language.

In the context of LIS, AI technologies are being leveraged to address longstanding challenges and to unlock new opportunities for libraries to deliver more personalized, efficient, and responsive services to their users. This introduction explores the fundamental concepts of AI in LIS and highlights key areas where AI is making a significant impact.

AI Applications in LIS

Information Retrieval: AI-powered search engines utilize machine learning algorithms to improve the accuracy and relevance of search results. These systems can understand user intent, analyze patterns in search behavior, and adapt over time to deliver more precise information retrieval experiences.

Cataloging and Metadata Management:

AI automates cataloging processes by automatically assigning metadata tags, classifications, and keywords to digital resources. This streamlines the organization of library collections and ensures consistency in metadata standards.

Virtual Assistants and Chatbots:

Libraries are deploying AI-driven virtual assistants and chatbots to provide instant support to users, answer reference inquiries, assist with circulation services, and offer personalized recommendations based on user preferences.

User Analytics and Personalization:

AI technologies analyze user data to gain insights into user behavior and preferences. This information is then used to personalize services, recommend relevant resources, and enhance overall user satisfaction.

Automation of Routine Tasks:

AI automates repetitive tasks such as inventory management, interlibrary loan processing, and collection maintenance. By freeing up staff from mundane tasks, libraries can optimize resource allocation and focus on more strategic initiatives.

Digital Preservation:

AI assists in digital preservation efforts by automating processes like content identification, OCR (optical character recognition), and content restoration. This ensures the long-term accessibility and integrity of digital collections.

Benefits of AI in LIS

Improved Efficiency:

AI streamlines workflows, reduces manual effort, and optimizes resource allocation, leading to improved operational efficiency within libraries.

Enhanced User Experience:

AI-driven personalized services enhance user satisfaction by delivering tailored recommendations and responsive support.

Data-Driven Decision Making:

AI analytics provide valuable insights into user needs and behaviors, enabling libraries to make informed decisions about resource acquisition and service improvements.

Innovation and Adaptation:

AI fosters innovation in LIS by enabling libraries to adopt emerging technologies and respond effectively to changing information demands.

AI-powered information retrieval refers to the use of Artificial Intelligence (AI) technologies to enhance the process of accessing and retrieving information from vast collections of data, particularly within the context of Library and Information Science (LIS). This approach leverages AI algorithms, such as machine learning, natural language processing (NLP), and deep learning, to improve the accuracy, relevance, and efficiency of search experiences for users interacting with digital libraries, online databases, and information repositories.

Key Components of AI-Powered Information Retrieval:

Contextual Understanding:

AI-powered systems can interpret user queries in context, considering factors like user preferences, search history, and intent. This contextual understanding allows for more accurate and personalized search results tailored to individual user needs.

Semantic Search:

AI technologies enable semantic search capabilities, where search engines can understand the meaning and context of queries beyond simple keyword matching. By identifying related concepts, synonyms, and associations, AI-powered systems deliver comprehensive and relevant results.

Relevance Ranking:

AI algorithms continuously learn from user interactions and feedback to improve relevance ranking of search results. By analyzing patterns of user behavior, AI systems can prioritize and present the most relevant resources at the top of search results.

User Intent Prediction:

AI-driven information retrieval systems can predict user intent based on historical data and contextual cues. This allows for proactive assistance and anticipatory search functionalities, where relevant resources are suggested even before a specific query is made.

AI Techniques Used in Information Retrieval:
Machine Learning Models:
Supervised and unsupervised machine learning algorithms are employed to classify and categorize information, improving the accuracy of search results and recommendation systems.
Natural Language Processing (NLP):
NLP techniques enable search engines to understand and process natural language queries, supporting conversational interfaces and voice-based search capabilities.
Deep Learning:
Deep learning models, such as neural networks, are used for complex tasks like image recognition (relevant for visual search) and understanding unstructured data.
Real-World Applications:
Personalized Recommendations:
AI-powered systems analyze user behavior and preferences to deliver personalized recommendations for books, articles, and other resources.
Voice Search:
AI-driven voice assistants allow users to search for information using voice commands, offering a hands-free and intuitive search experience.
Visual Search:
AI technologies enable visual search capabilities, where users can upload an image to find similar items or related content within library collections.
Benefits of AI-Powered Information Retrieval:
Improved Search Accuracy:
AI enhances the precision and relevance of search results, reducing information overload and improving user satisfaction.
Enhanced User Experience:
AI-driven information retrieval systems offer intuitive interfaces, proactive assistance, and personalized recommendations, enhancing overall user experience.
Efficient Resource Discovery:
Libraries can optimize resource discovery by leveraging AI to surface relevant resources quickly and efficiently.
Continuous Improvement:
AI algorithms continuously learn from user interactions, leading to adaptive and responsive information retrieval systems that evolve over time.

AI and digital preservation intersect in crucial ways, offering innovative solutions for managing, preserving, and ensuring the long-term accessibility of digital content within Library and Information Science (LIS) and cultural heritage institutions. Digital preservation involves the strategies and techniques used to safeguard digital assets, such as digital documents, multimedia files, datasets, and software, against degradation, obsolescence, and loss over time.

Role of AI in Digital Preservation:
Content Identification and Classification:
AI technologies, including machine learning and computer vision, aid in identifying and classifying digital content based on content type, format, and metadata attributes. AI algorithms can automatically categorize and tag digital assets, facilitating efficient organization and retrieval of preserved content.
OCR (Optical Character Recognition):
AI-driven OCR tools convert scanned documents and images into machine-readable text, enabling full-text search capabilities and enhancing the accessibility of digitized materials. AI improves the accuracy and speed of OCR processes, making it easier to preserve textual content in digital formats.

Data Quality Assurance:

AI can analyze and assess the quality of digital data, identifying errors, inconsistencies, or corruption in datasets. AI-powered data validation processes ensure the integrity and reliability of preserved digital resources.

Content Restoration:

AI techniques, such as image and audio restoration algorithms, help in restoring degraded or damaged digital content. AI-driven restoration processes enhance the quality of preserved materials, making them more visually or audibly appealing while preserving authenticity.

Metadata Enrichment:

AI enhances metadata creation and enrichment by automatically extracting relevant metadata from digital assets. AI algorithms analyze content to generate descriptive metadata, improving discoverability and contextual understanding of preserved materials.

Preservation Planning and Risk Assessment:

AI tools assist in preservation planning by predicting potential risks and vulnerabilities associated with digital assets. AI-driven risk assessment models identify threats such as format obsolescence, hardware/software dependencies, and data degradation, enabling proactive preservation strategies.

Benefits of AI in Digital Preservation:

Scalability and Efficiency:

AI automates labor-intensive tasks in digital preservation, allowing institutions to handle large volumes of digital content efficiently.

Enhanced Accessibility:

AI technologies improve access to preserved materials through advanced search, retrieval, and restoration capabilities.

Quality Assurance:

AI-driven data validation and content restoration processes ensure the integrity and accuracy of preserved digital resources.

Future-Proofing:

AI assists in mitigating risks associated with format obsolescence and technological changes, ensuring the longevity of digital collections.

Challenges and Considerations:

Ethical Implications:

AI raises ethical concerns related to data privacy, bias in algorithms, and ownership of digital assets.

Interpretability:

Understanding and interpreting AI-generated metadata and preservation decisions may require transparency and human oversight.

Integration and Adoption:

Libraries and cultural institutions need to invest in AI infrastructure, skills development, and governance frameworks to effectively leverage AI for digital preservation.

AI offers significant opportunities to enhance digital preservation practices by automating workflows, improving content quality, and enabling proactive risk management. By integrating AI technologies into digital preservation strategies, libraries and cultural heritage organizations can ensure the longevity and accessibility of digital collections for future generations while navigating ethical and practical considerations associated with AI adoption.

Challenges and Future Outlook of AI in LIS Services

Artificial Intelligence (AI) holds immense potential to transform Library and Information Science (LIS) services, offering innovative solutions for information management, user engagement, and operational efficiency. However, the adoption and integration of AI in LIS also present significant challenges and considerations that must be

addressed to maximize its benefits and ensure responsible deployment. Additionally, exploring the future outlook of AI in LIS provides insights into emerging trends and potential directions for further development.

Challenges of AI in LIS Services:

Data Quality and Bias:
AI models rely heavily on training data, and biases present in the data can lead to biased outcomes and decisions. Ensuring data quality and mitigating bias in AI applications is critical for equitable and reliable information services.

Ethical and Privacy Concerns:
AI technologies raise ethical considerations related to user privacy, data protection, and algorithmic transparency. Libraries must prioritize ethical AI practices to safeguard user rights and maintain trust.

Skill Gaps and Training:
The successful implementation of AI in LIS requires specialized skills in data science, machine learning, and AI development. Libraries may face challenges in recruiting and training staff with the necessary expertise.

Cost and Resource Constraints:
AI technologies often require significant investments in infrastructure, software, and training. Libraries with limited budgets and resources may encounter barriers to adopting AI solutions.

Interpretability and Human Oversight:
AI-driven systems can be complex and opaque, making it challenging to interpret decisions made by AI algorithms. Libraries must ensure human oversight and accountability in AI applications.

Future Outlook of AI in LIS Services:

Personalized Services:
AI will continue to enable personalized and tailored services, such as personalized recommendations, adaptive learning systems, and context-aware assistance, enhancing user experiences in libraries.

Collaborative AI Platforms:
Libraries may collaborate to develop shared AI platforms and tools for resource sharing, data analysis, and collaborative research initiatives, fostering a culture of knowledge exchange and collaboration.

Enhanced Information Access:
AI-driven technologies, including advanced search algorithms, semantic analysis, and natural language processing, will further improve information access and retrieval capabilities within libraries.

Integration with Emerging Technologies:
AI will intersect with emerging technologies like augmented reality (AR), virtual reality (VR), and blockchain, enabling new modes of interaction and information dissemination in library services.

Ethical AI Governance:
Libraries will prioritize ethical AI governance frameworks, emphasizing transparency, accountability, and fairness in AI applications to uphold ethical standards and promote responsible innovation.

Continued Research and Innovation:
Research and development in AI for LIS will focus on addressing key challenges, such as bias mitigation, data privacy, and user-centered design, driving continuous innovation and improvement in AI-driven library services.

Conclusion
AI presents challenges and complexities in its integration into LIS services, its future outlook is promising, with the potential to revolutionize how libraries manage,

disseminate, and preserve information. By addressing challenges through ethical practices, strategic investments, and interdisciplinary collaboration, libraries can harness the transformative power of AI to enhance access to knowledge and empower communities in the digital age. The integration of Artificial Intelligence (AI) in Library and Information Science (LIS) services represents a transformative shift that offers numerous benefits and opportunities (Senthilkumar, et. al. 2024). AI technologies have significantly enhanced the efficiency and effectiveness of various library functions, such as cataloging, information retrieval, user services, and data analysis. By leveraging AI, libraries can better manage and organize vast collections of information, leading to improved accessibility and discoverability of resources for users. AI-driven tools like recommendation systems and chatbots also enhance user experiences by providing personalized recommendations and immediate assistance.

Furthermore, AI contributes to the automation of routine tasks, freeing up human resources to focus on more complex and value-added activities like research support and community engagement. This not only optimizes library operations but also enables librarians to deliver higher quality services to their patrons. However, it's essential to acknowledge potential challenges associated with AI in LIS, such as privacy concerns, algorithmic biases, and the need for ongoing staff training and development. Overcoming these challenges requires thoughtful implementation strategies, ethical considerations, and continuous evaluation of AI applications in LIS.

In summary, AI technologies hold immense promise for the future of LIS services, enabling libraries to evolve and adapt in a rapidly changing information landscape. Embracing AI responsibly can lead to more agile, innovative, and user-centered library services that better serve the needs of diverse communities and contribute to the advancement of knowledge and information access.

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TALENT DETECTION STAGE: AN IMPETUS FOR ENHANCING THE EFFECTIVENESS OF THE KHELO INDIA SCHEME

Dattaniranjan Nandikolmath
UGC-SRF PhD Research Scholar,
Department of Studies in Anthropology
Karnatak University Dharwad
Email: mathnandikol@gmail.com

Dr. Aruna S Hallikeri
Associate Professor (Rtd)
Department of Anthropology
Karnatak Arts College, Dharwad

ABSTRACT

The Khelo India Scheme is an initiative of the Government of India that aims to revitalise India's sports culture by establishing a robust framework for all sports and promoting India as a thriving sporting nation. However, a lack of talent detection stage in the whole framework of the Khelo India scheme was found. Talent detection is crucial for harnessing talent, as it helps identify motor impairments often linked to cognitive, language, social, and emotional difficulties and provides a basis for monitoring and improving motor skills essential for successful physical activity engagement. This paper discusses the rationale and benefits of integrating the talent detection stage in the Khelo India Scheme to promote early detection of talent, ensure fairness, and promote inclusiveness through sports. It also discusses the framework and strategies for its implementation. Adopting insights and leveraging best practices of talent detection in the current scheme can pave the way for a new generation of world-class athletes, inspiring millions nationwide to pursue their sports dreams.

Keywords: *Khelo India Scheme, Talent Identification, Talent Detection, Motor Coordination, KTK3+,*

INTRODUCTION:

On 31st January 2018, The Prime Minister of India, Narendra Modi, put out a quote: 'Khelega India Khilega India (If India Plays, it shall Blossom)' while formally inaugurating Khelo India School Games and launching The Khelo India Scheme comprehensively (Narendra Modi, 2018). The Khelo India Scheme was created by merging the Rajiv Gandhi Khel Abhiyan (RGKA), the Urban Sports Infrastructure Scheme (USIS), and the National Sports Talent Search Scheme (NSTSS) (Government of India, 2022b). This scheme is intended to revitalise India's sports culture by establishing a robust framework for all sports and promoting India as a thriving sporting nation (Government of India, 2022a). Its impact has been tremendous across the country, especially in Northeast India (Parmar et al., 2023), and towards comprehensive athlete development (Debnath, 2019).

One of the vital aspects of the Khelo India programme is talent identification from the grassroots level, which is one of the 12 pillars of this scheme. In order to perform talent identification, The Khelo India Mobile App was developed, which assessed 23 lakh children aged 5-18 by using the app, while over 15,000 PE teachers trained under the Khelo India Scheme (Government of India, 2022b). However, in 2019, the Standing Committee on Human Resource Development turned in a report on the Khelo India Scheme, which Dr Satyanarayan Jatiya led, pointed out several discrepancies in the scheme. The Committee found the talent identification process was complex and lengthy, starting with pan-India

trials by talent scouts and continuing with repetitive testing of sportspersons, allowing favouritism and regionalism into the selection process. It recommended a single window selection procedure to ensure fairness in the selection process (Ram & PRS Legislative Research Institute for Policy Research Studies, 2019).

In order to rectify these incongruities, a new set of revised guidelines in 2021 were devised for the period of 2021-22 to 2025 26 (Government of India, 2021). These revised guidelines were related to creating and upgrading sports infrastructure, sports competitions, talent development, Khelo India centres, sports academies, the Fit India movement, and promoting inclusiveness through sports. Some of the observations made in guidelines related to talent development are as follows:

a) The selection is based on the performance in competitions such as school and university leagues, Khelo India Youth Games, Khelo India University Games, and Khelo India Winter Games.

b) A National Talent Search Portal maintained by the Sports Authority of India exists where individual achievements can be posted/uploaded. (Sports Authority of India [SAI], 2017)

c) The potential talent identification is done through Khelo India and Fit India mobile applications using age-appropriate protocols.

d) The initial talent identification is discipline or sport-specific rather than creating a pool of talents.

After analysing these guidelines, even after the update, we found a lack of talent detection stage in the whole framework of the Khelo India scheme. Due to this hindrance, there is a lack of assessment and identification of talent at an early stage, a lack of focus on motor abilities, subjectivity in the selection process, overdependence on the competitions for selection, talent loss, and talent orientation. In this paper, we discuss the stage of talent detection in a talent cultivation arrangement, the need for talent detection in the Khelo India scheme, and the benevolence talent detection stage can provide to the whole scheme.

Talent Detection:

Talent is the natural ability to excel in specific fields, often characterised by enthusiasm and uniqueness, allowing for faster growth compared to others with similar experiences. Sports talents refer to individuals with potential for sports development and good physical fitness who excel in sports (Zhao et al., 2024). Several types of Talent Identification and Development systems (TIDS) exist worldwide (Vaeyens et al., 2008). However, recent works by various sports scientists have shown the importance of the talent detection stage in the TID model and consider talent detection as a preliminary and first step in the organisation of talent cultivation (Carlson, 2011; Keulen et al., 2024; Mohamed et al., 2009; Pieter, 2010; Pion, 2015; Spies et al., 2022). One of the conducive TIDS was discussed by Till & Baker (2020), and it involves five steps. These five are represented in the Fig.1

Talent Detection → Talent Identification → Talent Development → Talent Selection → Talent Transfer

Figure 1 Stages of TIDS

The fundamental and preliminary stage, Talent detection, is finding potential performers not currently involved in sports (Williams & Reilly, 2000). According to Pion (2015), talent detection happens in childhood (6- 12 years) based on an assessment of anthropometric measurements, some physical performances, and motor competence and proficiency using a generic battery to sort children into good and better movers. Also, Spies. et al. (2022) recommend that we also consider the will of the child to participate during this stage. It is important to note that the talent detection stage significantly focuses on

assessing and identifying motor abilities. Let us understand the relevance of the assessment of motor abilities and coordination.

Relevance of Assessment of Motor Competence

Motor skills, which involve controlling the movement of muscles in the body, are essential for children's physical development. They are divided into a) gross motor skills, which involve larger muscle groups, and b) fine motor skills, which involve smaller muscle groups. These skills enable daily tasks, participation in activities, and learning experiences (Gonzalez et al., 2019). They foster independence, enhance coordination, and support cognitive development by promoting problem-solving and spatial awareness, laying the foundation for future academic and social success. Developing a wide range of fundamental motor skills during early to middle childhood is essential for enhancing the ability to participate in physical activities, particularly in recreational sports settings (Mijalković et al., 2024).

Motor competence is the ability to work with one's body to do coordinated, goal-directed movements like running and throwing. It is the foundation for the complex movement patterns needed for many sports and different types of physical exercise (Hill et al., 2023; Goodway et al., 2019). Motor competence has effectively promoted physical activity, health-related fitness, and weight status (Robinson et al., 2015). Assessment of motor competence plays a very vital role in harnessing talent. Assessment of motor competence in children is crucial for several reasons. Firstly, it can help identify motor impairments often linked to cognitive, language, social, and emotional difficulties (Piek et al., 2012). Secondly, it can provide a basis for monitoring and improving motor skills, essential for successful physical activity engagement (Bardid et al., 2014).

There are several assessment tools available for finding motor competence, such as Test of Gross Motor Development (TGMD 2) (, Test of Motor Competence (TMC) (Sigmundsson et al., 2016), Bruininks–Oseretsky Test of Motor Proficiency-2 (BOT-2) (Bruininks & Bruininks, 2005), Körperkoordinationtest für Kinder (KTK) (Nagy et al., 2023), Movement Assessment Battery for Children-2 (MABC-2) (Jírovec et al., (2019); Henderson et al., (2007)) and many others. However, in sports research, KTK and its new variants, like KTK3 and KTK3+, have significantly increased attention (Bardid et al., 2014; Canli & Taşkın, 2022; Coppens et al., 2021; Laureys et al., 2019; Mardiansyah et al., 2023; Pion, 2015). Thus, KTK3+ is one of the favourable tests to be included in the Khelo India talent detection battery.

KTK3+ battery is a comprehensive motor competence assessment tool for children and adolescents aged 6-19 years, and we have validated normative values for these tests (n=2271) (Coppens et al., 2021). This battery consists of 4 tests in the battery, i.e., jumping sideways (JS), moving sideways (MS), balancing backwards (BB), and eye-hand coordination (EHC), represented in Figure 2.
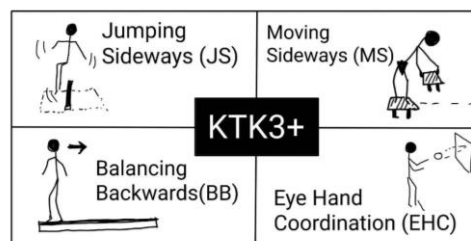
Figure 2 Components of KTK3+

Coppens et al. (2021) note that these tests combine to assess a child's locomotion, balance, and object control. Further, studies by various scholars (Coppens et al., 2021; Faber et al., 2014; Platvoet et al., 2018) revealed that this battery has excellent test-retest

reliability for all subtests: BB 0.80, MS 0.84, JS 0.95, and EHC 0.87. The tests can be easily administered and require approximately 15 minutes per child. Thus, the KTK3+ test battery is a practical tool for longitudinal follow-up of motor control in children and adolescents aged 6--19, measuring balance, locomotion, and object control skills. Its strengths include its extensive age range, easy test protocol, and quick setup. Hence, this test is suitable for adoption in the Khelo India scheme for talent detection. However, let us briefly understand the rationale and necessity of why this government program needs a talent detection stage.

Rationale and benefits for integrating the talent detection stage:

If we analyse the second version of the Khelo India Fitness Assessment administration manual in schools (Sports Authority of India, 2020), we find the following battery in Table 1 to be measured according to age groups.

Table 1: Fitness Assessment battery for children as per Khelo India Manual (Sports Authority of India, 2020)

Age 5-8	Age 9-18
a) BMI b) Plate Tapping test for coordination c) Flamingo Balance test for balance	a) BMI b) Partial Curl-up for strength c) Push-ups/Modified push-ups for strength d) Sit and Reach test for flexibility e) 600-meter run/walk for cardiovascular endurance f) 50-meter dash for speed

To our surprise, the manual mentions the importance of motor abilities but does not comprehensively assess it. Many medical experts have shown that BMI is not a perfect and sometimes misleading predictor of adiposity, especially in children and adolescents (Nevill et al., 2021; Vanderwall et al., 2017). Plate tapping and flamingo balance tests are reliable for assessing speed, limb movement coordination, and static and overall body balance. However, they lack in comprehensively sorting and categorising children into good and better movers for identifying talent through statistical tools such as Z-scores.

For a better comparison, let us look at the example of Flemish Sports Compass (Pion, 2015), which offers 16 tests in its generic battery (used KTK3 battery) to perform talent detection. Table 2 mentions these tests.

Table 2: Generic Battery for talent detection by Pion (2015) implemented under Flemish Sports Compass among Flanders of Belgium

Anthropometric Measurements	Physical Performace tests	Motor Abilities Test
1. Height/Stature 2. Weight 3. Sitting Height 4. Body Fat %	5. 'Sit and reach' test 6. Shoulder rotation test 7. Hand grip 8. Standing broad jump 9. Knee push-ups 10. Curl-ups 11. Shuttle run (10x5m) 12. Endurance shuttle run (20m)	13. Balancing backwards 14. Jumping sideways 15. Moving sideways 16. Dribbling

Pion (2015), in his thesis, shows how a non-sport-specific generic test battery of Flemish Sports Compass has led to the differentiation and classify athletes for at least nine sports. This comprehensive test battery is also valuable for orienting talented individuals based on strengths and weaknesses, reducing early dropout from the sport. Hence, this rationale of comprehensiveness and assessing inclination of talent detection is the rationale for its integration into the Khelo India programme. The benefits of integrating talent detection can be understood in Figure 3. Thus, a talent detection stage in the Khelo India Scheme can become an important tool in enhancing its effectiveness from the ground level.
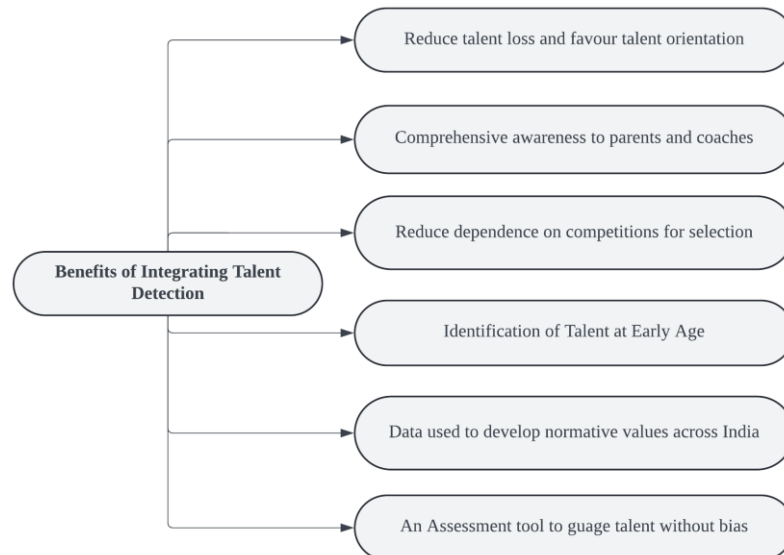
Figure 3: Benefits of Integrating Talent Detection in the Khelo India Programme

Proposed framework and implementation strategies:

Effective implementation of the talent detection framework requires collaboration between various stakeholders, including government agencies, sports federations, coaches, and educational institutions. Schools must play a vital role and invest in the minimal infrastructure needed for this stage. Physical education teachers must enhance their anthropometry and statistical analysis skills through capacity development programmes to detect talent in their schools. Level 1 or 2 Anthropometrists trained in the International Society of the Advancement of Kinanthropometry (ISAK) guidelines can be employed at block levels to develop somatotypes of children as there is an absence of body fat percentage methods for children as well as can help in other methods of test battery. Strategic implementation needs capacity building, stakeholder engagement, and establishing robust monitoring and evaluation mechanisms. By adopting a systematic approach to talent detection, the Khelo India Scheme can unlock the full potential of young athletes and propel India towards sporting excellence.

CONCLUSION:

In conclusion, integrating a talent detection stage can provide impetus for enhancing the effectiveness of the Khelo India Scheme. Adopting insights and leveraging best practices of talent detection in the current scheme can identify and nurture sporting talent more effectively, ultimately contributing to India's success in the international sports arena. With a structured talent detection framework, the Khelo India Scheme can pave the way for a new generation of world-class athletes, inspiring millions nationwide to pursue their sports dreams.

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EFFECT OF VARIOUS INTENSITIES OF AEROBIC TRAINING ON HEART RATE AND BLOOD PRESSURE OF MIDDLE AGED MEN

M.J. Dayananda
Research Scholar,
Alagappa College of Physical Education
Karaikudi, TamilNadu

Dr. K.M.M Jaskar
Assistant Professor,
Alagappa College of Physical Education
Karaikudi,Tamilnadu

Abstract
The purpose of the study was to find out the effect of various intensities of aerobic training on heart rate and blood pressure of middle aged men. To achieve the purpose, 30 middle aged men were selected randomly as subjects from Mysore District, Karnataka state. Their age mean and height were 43 + 2.3 years & 167.6 respectively. They were randomly divided into three equal groups, and each group consisted of ten (n=10) subjects, in which, Group-I underwent moderate intensity aerobic training. Group-II underwent high intensity aerobic training and Group-III acted as a control group. High intensity was pedal at cadence of 60 revolutions per minute of bicycle ergo meter training for 5 days per week for twelve weeks. All the subjects in the experimental groups (I & II) were given their respective training programme for twelve weeks duration. The study was restricted to the following selected dependent variables such as heart rate and blood pressure (Systolic and diastolic blood pressure) they were tested by standardized test items. The participants were trained for twelve weeks of three days a week (alternate days). A pre and post-test randomized design was employed for this research. The collected data were statistically analysed by using ANACOVA. The Scheffe's test was used as post-hoc test to determine which of the paired means differed significantly where the differences in adjusted tests were computed at 0.05 level of significance (P<0.05). It was concluded that, the moderate intensity aerobic and high intensity aerobic training groups had significantly improved the participant's heart rate and blood pressure (systolic and diastolic blood pressure) when compared than the control group and also made significant differences among experimental and control groups.
Keywords: *High Aerobic, Moderate Aerobic, Heart Rate, Systolic Blood Pressure, Diastolic Blood Pressure, Middle aged men.*

Introduction

Sports have become an important social and cultural activity of the modern world, which is being given the right place it deserves by the nation and societies of the world. Sports contribution towards all round development of personality and enhances the horizons of awareness among competitive sports men (1).

Performance sports aim at higher sports performance and for that the physical and psychological capacities of sports men are developed to extreme limits (7). The competence of a physical activity outcome from its duration and repetitions (volume), Load and velocity (Intensity), and the frequency of performance (6).

Aerobic refers to a variety of exercise that's stimulates heart and lung activity for a time period sufficiently long to produce beneficial change in the body (7). It was helpful in so many ways like strengthening the respiratory muscles, strengthening and enlarges the heart muscles and improves its pumping, improving blood circulation and red blood cells,

reducing stress and depression, increasing your stamina and endurance of your muscles (Mishra, 2015).

Purpose of the Study

To find out the effect of various intensities of aerobic training on heart rate, systolic blood pressure and diastolic blood pressure of middle aged men.

Methodology

The purpose of the study was to find out the effect of various intensities of aerobic training on heart rate and blood pressure of middle aged men. To achieve the purpose, 30 middle aged men were selected randomly as subjects from Mysore District. Their age mean and height were 43 + 2.3 & 167.6 respectively. They were randomly divided into three equal groups, and each group consisted of ten (n=10) subjects, in which, Group-I underwent moderate intensity aerobic training. Group-II underwent high intensity aerobic training and Group-III acted as a control group. High intensity was pedal at cadence of 60 revolutions per minute of bicycle ergo meter training for 5 days per week for twelve weeks. Moderate intensity pedal at cadence of 50 revolutions per minute of bicycle ergo meter were given to the respective training programme for 12 weeks duration. The study was restricted to the following selected dependent variables such as heart rate and blood pressure (Systolic and Diastolic blood pressure) they were tested by standardized test items. The participants were trained for twelve weeks of three days a week (alternate days). A pre and post test randomized design was employed for this research. The collected data were statistically analysed by using ANACOVA. The Scheffe's test was used as post-hoc test to determine which of the paired means differed significantly where the differences in adjusted post-tests means resided in univariate ANACOVA among three groups. All the above statistical analysis tests were computed at 0.05 level of significance (p<0.05).

Results and Discussion

Table I: Analysis of covariance on selected variables among experimental groups and control groups

Variable Name	Test	Moderate Intensity aerobic Group	High Intnesity aerobic Group	Control Group	'F' Ratio
Heart Rate	Pre Test SD(+)	75.86+4.23	76.12+4.58	76.05+4.62	1.24
	Post Test SD(+)	71.27+3.95	72.84+3.89	75.81+4.15	10.08*
	Adjusted Post Test SD(+)	71.22	72.81	75.79	9.17*
Systolic Blood Pressure	Pre Test SD(+)	123.53+5.47	124.69+4.87	124.57+4.72	1.53
	Post Test SD(+)	120.97+3.25	122.14+3.12	124.32+4.53	29.41*
	Adjusted Post Test SD(+)	120.85	122.09	124.29	28.96*
Diastolic Blood Pressure	Pre Test SD(+)	83.69+3.24	83.04+4.20	83.37+4.01	2.72
	Post Test SD(+)	81.03+3.11	82.17+3.37	83.29+3.95	37.56*
	Adjusted Post Test SD(+)	80.94	82.11	83.26	38.05*

*Significant at 0.05 level, F0.05 (2.27) =3.35, F0.05 (2.26) =3.37

The Table-I indicated that they was significant difference among adjusted post-test means of moderate intensity aerobic group, high intensity aerobic group and control group on selected variables.

To find out which of the three paired means had a significant difference, the Scheffe's post-hoc test was applied and the results are presented in Table-II.

Chart 1: Mean value of moderate intensity aerobic group (MIAG), high intensity aerobic group (HIAG) and control group (CG) on heart rate
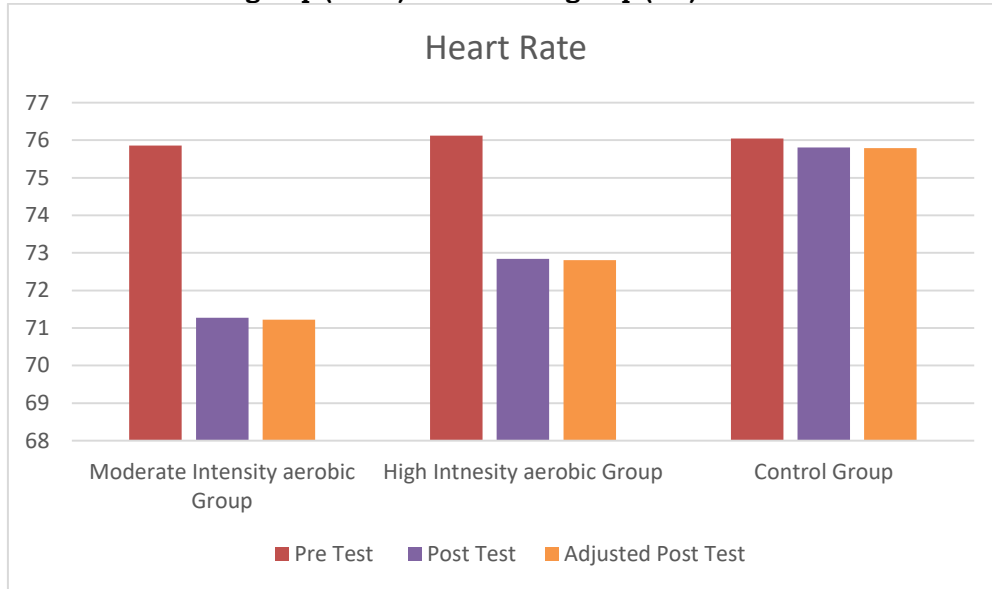
Chart 2: Mean value of moderate intensity aerobic group (MIAG), high intensity aerobic group (HIAG) and control group (CG) on systolic blood pressure of middle aged men
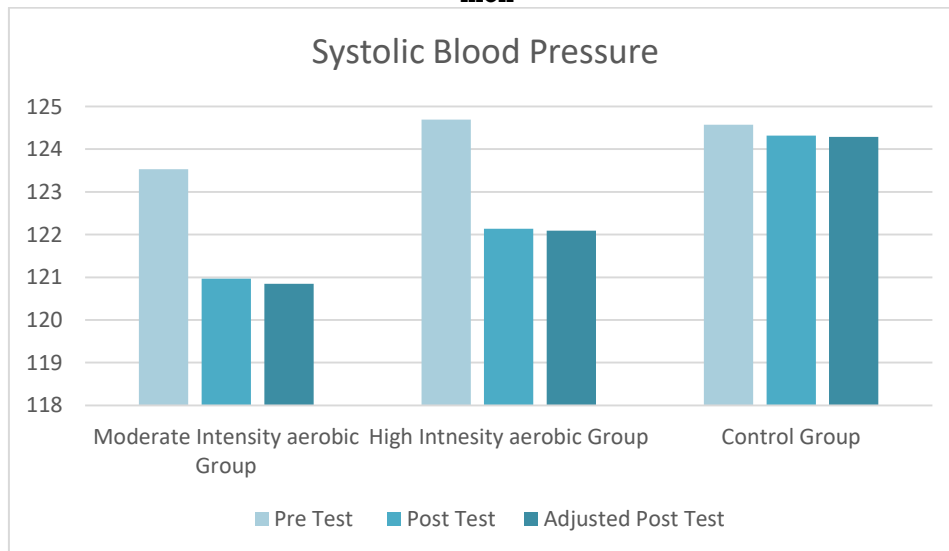
Chart 3: Mean value of moderate intensity aerobic group (MIAG), high intensity aerobic group (HIAG) and control group (CG) on diastolic blood pressure of middle aged men.
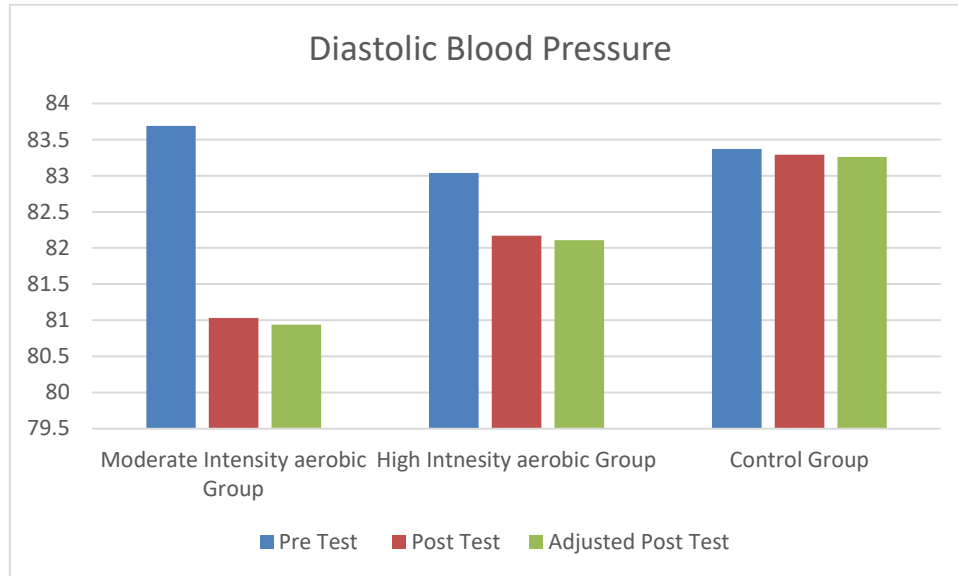
Table-II: The Scheffe's test for differences on selected variables between the adjusted post-test paired means

Variable	Moderate Intensity aerobic Group	High Intensity aerobic Group	Control Group	Mean difference	CI
Heart Rate	71.22	72.81	--	**1.59**	1.50
	71.22	--	75.79	**4.57**	
	--	72.81	75.79	**2.98**	
Systolic Blood Pressure	120.85	120.09	--	**1.24***	1.21
	120.85	--	124.29	**3.44***	
	--	120.09	124.29	**2.20***	
Diastolic Blood Pressure	80.94	82.11	--	**1.17***	1.13
	80.94	--	83.26	**2.32***	
	--	82.11	83.26	**1.15***	

*Significant at 0.05 level of confidence

The Table-II shows that, there was a significant difference on selected variables between three groups.

It was concluded that moderate intensity aerobic group is better than high intensity aerobic group and high intensity aerobic group improving performance of selected variables of middle aged men when compared than the control group.

Discussion and Findings:

The result of study indicates that there was significant difference on heart rate, Systolic and diastolic blood pressure on moderate intensity aerobic group, high intensity

aerobic group and control group of middle aged men. The following studies are supported to the result of this research from Biju Lumose Kudakasseril and Jayan(2019). Impellizzeri,(2006). Ferrete(2014), Castagna, (2011), Murulikrishna & Shelvam, (2014) & Gossard, (1986); Wouda, (2011) & Adling, (2017).

Conclusions

On the basis of findings of the study the following conclusions may be drawn:

The present study was exposed that significant difference was found in the mean of heart rate, Systolic and Diastolic blood pressure of moderate intensity aerobic group, high intensity aerobic group and control group. The moderate intensity aerobic group had significantly outperform than the high intensity aerobic group on the participant heart rate, systolic and Diastolic blood pressure. However the control group had not shown any significant improvement on selected dependent variables.

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IMPACT OF PLASTICS ON ENVIRONMENT AND HEALTH – AN OVERVIEW

Dr. Nirupama M
Assistant Professor of Zoology,
Sri Adichunchanagiri First Grade College,
Affiliated to University of Mysore
Channaraypatna

ABSTRACT

Plastic is one of the most widely used materials in the contemporary industrial world, and it presents a significant risk to both the environment and consumer health when used improperly. Plastics have revolutionised daily life; their use is growing, and by 2010, yearly output is probably going to surpass 300 million tonnes. In this final piece for the Theme Issue on Plastics, the Environment, and Human Health, we summarise our knowledge of the advantages and drawbacks of using plastics today and consider the opportunities, difficulties, and priorities that lie ahead. It is clear that plastics offer potential technological and medical advancements as well as several societal benefits. The accumulation of waste in landfills and natural habitats, physical issues for wildlife as a result of ingesting or becoming entangled in plastic, the leaching of chemicals from plastic products, and the possibility that plastics will spread chemicals to humans and wildlife are just a few of the many worries regarding usage and disposal.

Keywords: *Plastics, Environment, Health, phthalates, waste management*

Introduction:

Polymers are the primary constituent of a broad variety of synthetic or semi-synthetic materials that are referred to as plastics. Plastics may be moulded, extruded, or pressed into solid objects of a variety of shapes thanks to their fluidity. Plastic pollution is the build-up of synthetic plastic items in the environment to the point where they endanger human populations, wildlife, and their environments. A revolution in materials was brought about in 1907 with the introduction of genuinely synthetic plastic resins into global trade through the creation of Bakelite. Plastics were shown to be a persistent polluter of numerous environmental niches by the end of the 20th century, ranging from the bottom of the sea to Mount Everest. Plastics have gained increased attention as a major pollutant, whether it is due to their being mistaken for food by animals, flooding low-lying areas due to clogged drainage systems, or just plain causing severe visual blight.

For all of that, we need plastic. This goes beyond convenience. Plastic packaging, for instance, lowers product weight, transportation costs, and the need for fossil fuels. Without it, modern technological devices would not be conceivable. Furthermore, the majority of medical devices, including the ventilators that helped so many people survive the Covid-19 outbreak, are designed with plastic in mind. Plastic's usefulness keeps increasing due to recent chemical advancements. It can be easily manufactured from common materials, with petroleum serving as the primary ingredient, and is lightweight, robust, affordable, and easy to use. In addition to other specialised varieties, at least ten common types of plastic are widely used. Properties like flexibility and durability are determined by the process of manufacture or by the additions used in the process.

Without a doubt, plastic has benefited humanity, but just like other industrial society benefits like petroleum, pesticides, or antibiotics, our over-reliance on it is endangering both the natural world and humankind. Regretfully, approximately half of the plastics manufactured are single-use products. Even after they get too tiny to be seen under a microscope, plastics do not easily break down into smaller and smaller particles. These

microscopic fragments are easily absorbed into the blood and tissues of living things due to their resemblance to naturally occurring chemicals. They are even able to pass through the blood vessel-brain barrier. Plastic is a by-product of the combustion of fossil fuels, such as natural gas and crude oil. It also contains chemicals that are known to be endocrine disruptors, endangering human health. Plastic does not break down; instead, it breaks down into smaller pieces called micro plastics, which are a deadly problem for wildlife, as too much of them can cause intestinal blockages or punctures in organs. Exposure of humans to plastics containing these chemicals can lead to hormone imbalances, reproduction and even cancer.

In addition, plastics are becoming more and more prevalent in consumer goods and packaging, which increases their share in municipal solid waste streams and presents environmental problems. Because plastics lack the necessary qualities to degrade naturally, environmentalists have harshly criticised them. As is well known, plastic products contaminate the surrounding air and water and take 100–1000 years to decompose in landfills. Limitations are currently being implemented to curb the landfill habit, but if it continues, land availability will become a problem in many countries. Furthermore, a lot of cities are experiencing uncontrollably large floods during the rainy season due to the obstruction of their drains by incredibly thin plastic bags consisting of sheets thinner than 20 microns. An estimated million marine species are thought to perish each year due to plastic waste. The use of thin plastic bags by consumers industries during retail product sales has been outlawed in several countries due to the issue of plastic bag littering.

Accumulation of plastic waste in the natural environment:

Large amounts of plastic waste have accumulated in landfills and the natural world. Plastic makes up about 10% of the total weight of municipal garbage. Newspaper reports of plastic litter on even the highest mountains attest to the fact that discarded plastic also contaminates a wide range of natural terrestrial, freshwater, and marine environments. While some data exist on littering in urban areas, there is a conspicuous dearth of information regarding the accumulation of plastic trash in natural terrestrial and freshwater habitats when compared to the maritime environment. There are reports of small plastic fragments unintentionally finding their way into soil from the spreading of sewage sludge, of plastic and glass fragments contaminating compost made from municipal solid waste, and of plastic being carried into rivers and streams by rainwater and floods, eventually ending up in the sea. Further study is obviously needed to determine the amount and impact of plastic waste in freshwaters, agricultural land, and natural terrestrial environments.

Plastics are buoyant materials, but when they get contaminated by dirt and marine life, they sink to the bottom. For instance, Brazil's shallow seabed have higher levels of contamination than the shorelines nearby, suggesting that the seabed might act as a final sink for marine debris that is initially buoyant. The amount of garbage on the seabed has been claimed to be more than 1000 metres below the ocean's surface in several regions across Europe. Accounts of inverted plastic bags passing a deep-sea submersible like a group of ghosts have also been observed.

Although there are currently relatively few quantitative statistics on the amount of trash on the seabed, there are worries that the deep sea's low light and low temperature may lead degradation rates to be particularly sluggish. To determine the rates of accumulation and the efficacy of any clean-up efforts, it is critical to keep an eye on the amount of debris. The majority of research evaluates the quantity of total anthropogenic debris, including information on plastics and/or plastic products as a group. The techniques used by different nations and organisations to track the quantity of anthropogenic waste—including plastics—often differ significantly, making it more challenging to assess trends. Consequently, efforts are currently underway to create standardised protocols by the OSPAR Commission and the United Nations Environment Programme. However, some trends are apparent, usually accompanied by a rise in the

quantity of debris and fragments between the 1960s and the 1990s. In recent times, there have been reports of significant increases in some areas, such the Pacific Gyre, while abundance at the sea surface and along some shorelines appears to be stabilising in other regions.

In the Northern Hemisphere, there is more trash on shorelines than in the Southern Hemisphere, much of it plastic. There is more trash near cities and on beaches that are visited more frequently, and there is proof that plastics are building up and getting buried in sediments. Discarded material from more populated places is thought to be transported to more isolated ecosystems, such as the deep sea and the Polar Regions, where contamination is expected to rise. Despite the fact that different ecosystems and places will always have more debris than others, it appears inevitable that this trend will continue until everyone modifies their behaviour. Plastic waste that is currently present in the ecosystem will continue to exist for a long time despite these modifications. Barnes et al. (2009) poignant illustration of the enduring nature of plastic waste and the environmental risks it poses comes from an airliner that was consumed by an albatross some 60 years after it crashed.

The impact of plastic on climate change:

Worldwide, more than 300 million tons of plastic is produced every year, and half of this is singleuse plastics. Single-use plastic includes water and soda bottles, plastic grocery bags, product packaging, straws, coffee cups and single-use plastic baggies. It takes more than 1,000 years for plastic to decompose. Every plastic bottle, straw and container ever thrown away is still intact and somewhere on earth. The plastic problem affects every part of the planet, from the top of Mount Everest to the bottom of the Marianas Trench.

- An estimated 1.5 to 12.5 million metric tonnes of greenhouse gases are released from the simple process of extracting these fossil fuels and transporting them to plastic manufacturing facilities.
- In addition, more than 1.6 billion metric tonnes of carbon dioxide have been emitted into the environment as a result of clearing forests for pipeline construction and oil extraction. Additionally, the quantity of carbon dioxide extracted from the atmosphere is limited by this land removal.
- An additional 184 to 213 million metric tonnes of greenhouse gases are released annually during the plastics refining process.
- Over fifteen percent of methane emissions originate from landfills, which receive the disposal of single-use plastics. Both the size of the landfill and these emissions increase when more plastics are disposed of in them.
- The Pacific Ocean is home to a massive floating mass of plastic that is twice the size of Texas and is still growing.
- Communities that are most vulnerable are first impacted by plastic waste. Developed nations, like the US, export plastic to developing nations for processing. The quantity of plastic can eventually get so large that these towns run out of means to get rid of it and fill up with plastic waste.

Plastic Pollution Impact on Marine Animals

- **Plastic pollution from our rivers:** Our rivers discharge 80% of the plastic waste that ends up in the ocean. A recent analysis from Plastic Oceans UK and Earth watch Europe found that plastic drink bottles accounted for a staggering 14% of the recognisable plastic debris found in freshwater environments across Europe, making them the worst offenders. With 12% and 6% of the total, food wrappers and takeaway cups were also very common. These are not recyclable and are all one-time use items.

- **Plastic pollution from our sewage system :** Plastic waste from our sewage system is also dumped into the ocean. Every day, massive numbers of disposable wet wipes and cotton buds with plastic stems are flushed down the toilet, endangering our sewers, our seas, and our marine life. Micro plastics are a substantial additional polluter. It is quite difficult to filter these little, fewer than five millimetre-long pieces of plastic. Their entry into our waterways can be traced back to synthetic clothing that loses fibres in the washing machine and facial cleansers. A single washing cycle has the potential to produce up to 700,000 micro plastic fibres.
- **Plastic pollution from the fishing industry :** The fishing industry's ghost gear is a major contributor to the plastic contamination in our oceans. For instance, abandoned nets are a major hazard to marine life and are to blame for 3,200 reported incidents of animal damage each year in England and Wales. The prevalence of ghost gear in our waters has our crew at Padstow Sealife Safaris very concerned. We will notify the proper authorities of any observations of distressed animals or offer aid as required. We also encourage our personnel to collect any floating rubbish if it is safe to do so.
- **Plastic pollution causes devastating wounds to wildlife :** Plastic garbage entrapment or physical wounds are the main sources of injury to wildlife. Fish and sea birds being wrapped up in plastic drink rings and bags, among other plastic packaging. This may result in excruciating cuts, strangling, or even drowning. Sea creatures such as birds, mammals, and reptiles that require oxygen to breathe can get so tangled that they are unable to surface and end up drowning.
- **Plastic is mistaken for food :** Another significant risk posed by plastic in our oceans is that marine life frequently confuses trash for food and consumes it. These gullible animals eat the plastic, which can strangle them, injure their insides, or slowly starve them to death.
- **Micro plastics in our food chain :** Millions of tiny plastic particles, such as fibres from synthetic clothing or micro beads from cosmetics, find their way into our oceans. However, they can also be produced at sea as the elements degrade bigger plastic objects. Researchers are beginning to discover micro plastics in our food supply. One third of the 504 fish collected off the coast of South West England were found to contain micro plastics, according to a recent Plymouth University study. Micro plastics have been shown to stress the liver and interfere with the small intestine's ability to absorb iron in sea birds alone. Nurdles, sometimes known as "mermaid tears," are tiny plastic pellets used in the manufacturing of plastic. They are typically 3-5 mm long and resemble lentils. They are the primary component of plastic and are utilised in the production of almost all plastic goods, including toys, detergent bottles, food packaging, carrying bags, and more. They contribute significantly to marine pollution as well, with millions of them entering our ocean annually.
- **Plastic kills coral reefs:** Global plastic pollution has been shown to be the primary cause of the death of our ocean's coral reefs, which support hundreds of species and are a vital component of their ecosystems. In addition to containing bacteria, plastics prevent light and oxygen from reaching the coral. There is an 89% higher risk of disease development in coral that has come into touch with plastic.

Effects on Humans:

Plastics may be hazardous to human health because of the chemical additives employed in their manufacture. It is true that exposure to harmful chemicals found in plastic can result in cancer, birth deformities, weakened immune systems, and other health issues.

Management of plastic pollution:

With human consumption increasing every day it is hard to imagine a world where we don't consume single-use plastics daily. However, research for plastic alternatives is making strides and the increase in circular economy principles being applied to our products means hopefully fewer plastics will be released into our oceans and more will be put back into manufacturing and made into something else.

- **Reduce, recycle, reuse**

We recycle much more successfully now than we did in the past. However, we can't recycle all of the plastic garbage we produce. Because we produce so much plastic waste, we are forced to export some 600,000 tonnes of it to other nations annually. Next, this leads to waste problems in the nations of destination, such as Malaysia and China. Actually, China is currently refusing to take any more of our waste plastic. Therefore, in addition to **recycling,** we also need to **reduce and reuse** as much of the waste that we produce.

One important area where we can improve is with regard to the dreaded single-use plastics that are so prevalent in our rivers. One simple strategy to reduce the usage of single-use plastics is to switch to reusable drink bottles and coffee cups. Even though the 2015 plastic bag fee has decreased the quantity we use, you might go one step further and bring reusable canvas or straw bags instead of the sturdy plastic-based ones.

Purchasing fruits and veggies loose from the store rather than pre-packaged in plastic bags is another method to cut down on single-use plastic. More bag less options are starting to be available at many supermarkets and small local businesses. Morrison states 156 tonnes of plastic will be saved annually by their plastic-free fruit and vegetable programme alone. Additionally, a growing number of zero-waste stores are opening up, such as Cornwall's Incredible Bulk, which offers loose food and household goods devoid of packaging. You just need to provide reusable containers of your own.

The government is contributing to the effort to decrease the use of single-use plastic by outlawing some of the major offenders. Single-use plastic straws, drink stirrers, and cotton buds will all be outlawed as of April 2020.

In addition to practicing the 3 Rs and improving trash management, you may take part in a beach clean-up to help eliminate litter from our marine and coastal areas. Every year, volunteers gather for a number of planned events across the nation to clean up plastic and waste from our beaches.

Conclusion:

In conclusion, plastics have a lot going for them in the future, but it's clear that the ways we currently produce, use, and dispose of them are not sustainable and pose risks to human health and wildlife. Many environmental hazards are well understood, and data on their effects on human health is expanding, but many questions and concerns still need to be answered. Though there are answers, they need concerted effort to implement. Individuals can play a part by using and disposing of materials responsibly, especially through recycling; industry can play a part by implementing green chemistry, reducing material use, and designing products that can be recycled at the end of their useful lives; and governments and policymakers can play a part by establishing guidelines and standards, defining proper product labels that can encourage change, and providing funding for pertinent academic studies and technological advancements. All of the important phases of plastic production, including the synthesis of the chemicals used in production as well as use and disposal, should be taken into account when evaluating these measures within the context of lifecycle analysis. These steps, in our opinion, are long overdue and urgently needed because, despite growing concerns about the effects on human health and a variety of environmental hazards associated with the accumulation of plastic waste, the production of plastics is still growing at a rate of about 9% annually.

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LATEST TRENDS AND CONCEPTS IN PHYSICAL EDUCATION AND SPORTS: AN INDIAN OUTLOOK

Dr.Kishor.V
Physical Education Director,
Vidyodaya Law College, Tumkuru, Karanataka.
Email: kishorped@gmail.com

ABSTRACT

Physical education programs are recognizing the academic benefits of quality fitness programs. Exercise increases oxygen flow to the brain, thereby increasing cognitive skills. It also increases neurotransmission in the brain, or the connection of neurons, also known as brain cells. Strengthening these connections means that the brain is remembering more efficiently. Exercise also releases chemicals in the body known to enhance mood, regulate impulsivity, and decrease fidgeting. All the more reason to up the game in PE. Despite not receiving the attention it merits, physical education and sports are an essential component of the educational system. Even though it has been a component of the curriculum since the very beginning of education, neither academicians nor students nor educational administrators have ever taken it seriously. Only in physical education are you allowed to converse while playing or performing. The average public's conception of physical education is one of large circles, nonstop play, and no labour. In one of his speeches, Abraham Lincoln reportedly said, "Sportsman is the finest Ambassador of the Nation". As a result, the director or teacher of physical education can serve as our institution's or universities finest ambassador. Currently, as compared to prior times, we can try to develop the entire discipline in physical education and sports, one must overcome obstacles and fight to improve the structure and infrastructure status in the area. This is due to the loss of physical education in schools today.
Keywords: *Physical education, sports and Obstacles, Physical Training, Strength, Dexterous*

Introduction

In the Present World of Space age and automation era, all human beings appear to be living a more and more inactive life. One of the crucial metrics and a crucial component of education in every nation at any period is physical education and sports. As a result, each nation should attempt to establish a framework for an action plan to promote and improve physical education and sports. Contrarily, sports are being gravely undervalued inside the educational system while seeing a remarkable surge in the media spotlight around the globe, especially in India. The growth of physical education in a nation is promoted by the physical education act, which also provides resources for the country and aids in the creation of an assessment system for educational advancements. Currently, in comparison to past years, we may observe a drop in physical education in the classroom. In order to build the general discipline in physical education and sports, one has to overcome the obstacles and struggles to enhance the structure and infrastructure status in the area.

Present status of physical education and sports

Despite attempts by member States to advance physical education and sports through international collaboration, concerns about the subject's unique qualities and value to education persist. Given the societal significance and media coverage of sports, the results of physical education and sports were concerning (especially within the school system). Its effects may be observed in the public authority for physical education and sport's trend toward high-performance and media-friendly sports (at a national level, across the public and private system). An important illustration of the need for a clear division between the ministries of education and youth affairs and sports.

The Physical Education World Summit was held in Berlin to discuss the state of physical education and sports. This effort was sparked by studies indicating the increasingly precarious state of physical education and sports in many nations. The following important conclusions were drawn from a global comparative research that gathered data and literature from around 120 different nations.

a) Less time is allotted for physical education in the educational programme.
b) Budget cuts combined with insufficient human, material, and financial resources.
c) The subject is in a low status situation.
d) Many nations lack adequate training for teachers.
e) Current physical education regulations are not correctly implemented.

Need of the innovative minds in the fields of physical education

The relationship between physical education and sports is preserved through physical education and sports. The reciprocal guarantee emphasised the principles of as a result, it is vital to view physical education and sports as an inherent aspect of education in all schools and colleges in a nation, where sports should be mandatory starting in elementary school and continuing through college. In reality, a quality education includes teaching the fundamentals of life skills, such as how to:

1. Motivate oneself, be creative, and solve problems.
2. Use interactive tools (communication, physical, and IT tools).
3. Join and coexist in socialist different groups.

Physical education and sports are specifically capable of fostering all of these life skills that are based on a board. It follows that international organisations, state governments, and municipal authorities must aggressively encourage physical education and sports. To advance the cause of physical education and sports, the educational community must coordinate and simplify these activities. As part of the effort to enhance the state of physical education and sports throughout the world, this will entail aiding in the restoration of the balance between them in the educational system.

Physical education and sports: An Indian context

Even though it has never received the attention it deserves, physical education and sports play an essential role in the educational system. Even though it has been a component of the curriculum since the very beginning of education, neither academicians nor students nor educational administrators have ever taken it seriously. Only in physical education are you allowed to converse while playing or performing. The average public's conception of physical education is one of large circles, nonstop play, and no labour. In one of his speeches, Abraham Lincoln reportedly said, "Sportsman is the finest Ambassador of the Nation." As a result, the Director or Teacher of Physical Education can serve as our institution's or University's finest ambassador.

The real definition of physical education

Physical education is difficult to define since it encompasses so many various types of occurrences and has such a broad definition that implies different things to different individuals. According to a commenter, physical education is whatever that physical educators do. According to J. P. Thomas, physical education is instruction through physical activities to help children develop their entire selves, finding fulfilment and reaching their full potential in body, mind, and spirit. These definitions have many components in common even if they emphasise certain characteristics in quite different ways. Some of them might include: A component of the whole educational process is physical education. It is the culmination of all experiences and the corresponding reactions. Knowledge gained these reactions came about as a result of engaging in strong physical activity. The true goal of physical education is the holistic development of the individual, including their physical, mental, social, and moral well-being. The situation is identical to general education. The one area of schooling that may not have received enough emphasis in the Indian setting is

physical education. That's probably because we've been content with what the British gave us and haven't demanded anything more.

Genuine attempts on our side to create any practical and comprehensive physical education programmes that are uniquely suited to our circumstances. The academic aspects are constantly emphasised, whereas the physical parts are mostly unaffected. Because of this, a growing number of Indians are ignoring their bodies, comparing physical education to physical training, whose physical fitness is below par, and who are becoming more and more "soft".

The maintenance and improvement of the health of the students in our schools and colleges is one of the key goals of any physical education activity. Additionally, the School has a duty to ensure that all students attain and maintain optimal health, not just from a moral standpoint but also because an individual's educational experience would be significantly more meaningful if they are in optimal condition. When a youngster is healthy, learning comes to him more easily and effectively. Activities that promote or harm one's health often have a lot to do with one's ideals. Unfortunately, a lot of people have "value diseases," meaning they are aware of what they should be doing to be healthy but choose not to. Even though they are aware that smoking tobacco increases the risk of developing lung cancer, they continue to smoke. They are aware of how drinking impairs driving, but they continue to do so when intoxicated. They understand the need of consistent exercise in managing their weight, but they don't do anything to change their sedentary lifestyle. Authorities in education, health, and medicine have long understood the necessity for an Activity for Physical Education is planned into the school curriculum. The foundation of proper habits, attitudes, and appreciations toward all physical activities, including play, are laid during the formative and quickly developing period of elementary school age, and desirable citizenship traits are acquired, so that in adulthood he will be equipped with the knowledge, sound thinking processes, physical stamina, and emotional maturity live effectively in an ever-changing and highly complex society. In this regard, educators have a key role to play in properly addressing this situation. An intellectual pursuit is the devil's factory, so the saying goes.

Conclusion

The current practices and present curriculum needs to be modified to generate interest of students in physical education and sports activities. The future challenges will mainly be the appropriate curriculum to be made and followed and to make available adequate funds from various organisations. The technology will also play an important role in expanding and creating the interest in physical activities. The importance of physical education and sports activities are being identified in today's world and efforts are being made to improve the situations so that more and more physical activities can be organized for the benefits of the students. Students today are different than the students of yesterday. The education of yesterday will not meet the needs of the students of today, and yesterday's health and physical education curricula in particular will not meet those changing needs. What we need today? Today, we need a strong discussion at higher level in the matter of the major trends and issues facing health and physical education in our country. The idea of three dimensions should guide us in our job. Discipline, devotion, and resolve. The actual riches of the country is its youth. Youth involvement is essential for the success of any programme. Therefore, to ensure the development of physical fitness and learn skills in sports and games that have transferable value, an individual should regularly engage in games, sports, and different exercise programmes. This will enable him to lead a happy, enjoyable, and healthy life as a member of society. On the other hand, society should give its people adequate opportunity to participate in activities of their choosing and therefore improve or maintain their level of physical fitness. Excellence in sports cannot advance until the "General Standard of Health" improves. In order to assure "Improvement of performance in competitive sports" physical education and sports programmers should focus on "Health

Related" and "Performance Related" areas. Therefore, the goal of physical education is to encourage the methodical, all- around growth of the human body by scientific methods.

Therefore retaining exceptional physical fitness to accomplish one's dearly held life goals. Therefore, any organization of physical education should begin with fostering a positive attitude and sense of self-worth among physical educators themselves. This will help them realize that physical education does not need to be an afterthought in schools or colleges, but rather that it should be expanded into classrooms where it can become the focal point or hub of the educational system.

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SEMINAR PAPERJOB OPPORTUNITIES IN SPORTS

Prof. Dundappa.S.Dodamani
College Director of Physical Education
Govt Frist Grade College, Kaladagi TQ,
Dist: Bagalkot State:Karnataka

Abstract

In India, the domain of sports is largely unfarmed by many. This is primarily due to the view that all students must pursue a professional degree and then move onto finding a job in the "usual" fields of engineering, medicine, software etc. Things are changing now and belief taken place that sports are not only good for the mind and body but it help you earn your daily needs also. The best way forward in the direction towards a sports career is to pick an activity of interest and begin pursuing excellence in that direction. There are multiple career options in sports and playing professionally is one of them. At the school and college level, being actively engaged in sports and games is a sure-shot way to set up a child for a promising career.

Sports have given way to various sports related activities as practical career options. If you are not an actual sportsman, no problem, you still can get job opportunity in this field. Sports persons with years of experience are now being offered to work in a related field, such as, sports journalism, sports goods manufacture/marketing or as commentator. In this study researcher tried to find out different career opportunities from the field of sports.

Keywords: *professional, career options, opportunities.*

Introduction

Sports is a part of recreation in past. Many kingdoms right from Greece, Rome and other countries had a sports culture. They use to organise competitions like swordsmanship, horse riding, wheel throwing, wrestling, running etc. It was for pure recreation. Later on it turned it as a part of benefit for the participants. They use to get good prizes by the king or the spectators. This way the sport activity became a part of survival. Then to attract the crowd many tricks had been accepted like handsome prizes to advertisement to invitations for great sportspersons.

In India, the domain of sports is largely uncultivated by many. This is primarily due to the view that all students must pursue a professional degree and then move onto finding a job in the "usual" fields of engineering, medicine, software etc.

However, an overabundance of opportunities goes untouched as a result of this mindset and a career in sports is one such opportunity that most children miss out on. The best way forward in the direction towards a sports career is to pick an activity of interest and begin pursuing excellence in that direction. There are multiple career options in sports and playing professionally is one of them. At the school and college level, being actively engaged in sports and games is a sure-shot way to set up a child for a promising career.

Are you among the lot with an instinctive passion for sports? If your answer is yes, then sports as a career offers a overabundance of opportunities for you. Down the ages, the popular mindset has been that sports are good for the mind and body but it cannot help you earn your daily bread and butter. Sports have given way to various sports related activities as practical career options. If you are not an actual sportsman, no problem, there are other fields like sports management, sports medicine, sports journalism, adventure sports, fitness and health clinics etc., there are plenty of highly paid careers options.

Sports persons with years of experience are now being offered to work in a related field, such as, sports journalism, sports goods manufacture/marketing or as commentator. To be a sports person one needs to be physically fit, energetic and enthusiastic. If aspiring to become a trainer or manager, a graduate degree in physical education can be pursued

after Class XII (any stream with physical education) or B.P.Ed. degree after any graduation.

Objective
- ➢ To understand the field of sports.
- ➢ To find out opportunities in the field of sports.

Method

Descriptive method used for this study. Data were collected from different research articles, journals, magazines, research works published in reputed journals, internet and from different discussions.

Opportunities in the field of sports

There are plenty of career opportunities in the field of sports

1.   School and college sector
- Physical Education Instructor
- Director of Physical Education and sports
- Coach for many different sports

2.   Health and Fitness sector
- Athletic Trainer
- Physical Therapist
- Sports Medicine Adviser
- Assistant Athletic Trainer
- Physical Therapy Assistant
- Sports Massage Therapist
- Sports and Fitness Nutritionist
- Strength and Conditioning Coach
- Exercise Physiologist
- Sports Physician
- Sports Psychologist

3.   Sports Media sector
- Sports News Reporter
- Television Sports Producer
- Radio Sports Producer
- Internet Sports Producer
- Sports Writer
- Sports Photographer
- Sports Talk Show Host
- Sports Columnist
- Editor
- Publisher

4.   Pro sports organizations
- Coach
- Assistant Coach
- Trainer
- Strength and Conditioning Coach
- Club President
- General Manager
- Business Manager
- Director of Minor League Operations
- Marketing Director
- Director of Community Relations
- Ticket Operations Manager
- Transportation Secretary

- Executive Director
- Stadium Manager
- Sports Events Coordinator
- Equipment Manager
- Scoreboard Operator
- Ground curator

5. Cruise Ship Industry
- Shipboard Golf Professional Jobs
- Cruise Director Jobs
- Youth Program Director Jobs
- Youth Staff Jobs
- Recreational Manager Job

6. Local Clubs
- Youth Sports Administrator
- Recreation Manager
- Director
- Recreation Specialist
- Outdoor Recreation Planner
- Health & Fitness Director
- Instructor
- Facility Manager
- Aquatic Director
- Summer Camp Positions

7. Sports Equipment manufacturer's
- Manufacturer's Representative
- Sporting Goods Store Manager
- Sporting Goods Salesperson
- Sports Store Business Owner
- Team Dealer

8. Local events (Marathons, Racing events, Tournaments etc.)
- *Games Coordinator*
- *Finance persons*
- *Marketing persons*
- *Legal Affair persons*
- *Technology persons*
- *Operations person*
- *Communications person*
- *Medical staff*
- *Marketing and Promotions Coordinator*
- *Sports Information Director*

Discussion

The scenario shows that if you have an instinctive passion for sports then sports as a career offers you great opportunities. Sports are not only good for the mind and body but it help you earn your daily needs also. Sports have given way to various sports related activities as practical career options. If you are not an actual sportsman, no problem, there are other fields like sports management, sports medicine, sports journalism, adventure sports, fitness and health clinics etc., there are plenty of highly paid careers options.

Conclusions

The above information shows that things are changing drastically. If you are looking for a career change that will satisfy your wish to be a part of action in the sports world, but

you are definitely not a jock, be encouraged. You may already have all of the necessary skills and coursework under your strap that you need to make the switch to a job in sports.

All of the salary figures and other statistical information listed below has been taken from the U.S. Bureau of Labour Statistics (BLS). Always keep in mind that salaries may vary depending on where you are situated. Cities with a higher cost of living typically offer jobs with a higher salary to make up for that cost; similarly, a reasonably affordable town usually does not bring with it top dollar in salaries.

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THE SENGOL (*Symbol of 'Divine Right'*)

Dr.Jayanna B. R.
Associate Professor, Dept of History
Governament First Grade Collge for Women
Chamarajanagara
Email ID –brjayannarani77@gmail.com

What is the 'Sengol'?

Union Home Minister Amit Shah announced that Prime Minister Shri Narendra Modi will install the sacred Sengol in the New Parliament on 28th May 2023

Historically, **'Sengol' is a staff or wand** held in the hand by a ruling monarch as an item of royal or imperial insignia, signifying sovereign authority.

The sacred Sengol symbolises governance with righteousness

It was kept at a museum in Allahabad, and it will be moved to the new Parliament building

This Sengol became a symbol of the transfer of power.

In 1947, Tamil Nadu's *Thiruvaduthurai Aadheenam*, one of India's oldest mutts, was given the job of making a sceptre to symbolise the transfer of power from British to India.

Around 10.45 pm on August 14, 1947, Pandit Nehru received this Sengol from Tamil Nadu, and in the presence of several senior leaders, he accepted this as a symbol of achieving independence.

THE LESSER-KNOWN FACTS ABOUT THE SENGOL

Nandi bull symbolizing justice and strength

1. During the Chola Era, the 'Sengol' (sceptre) was considered a sacred symbol of authority.

2. It embodied the Chola Kings' might, legitimacy & control over their realm.

3. Thanks to the efforts of Rajaji, the Sengol symbolised the transfer of power from British to Indian control in 1947

4. Designed by a jeweller in Madras, the Sengol was ceremonially handed over by Lord Mountbatten to Nehru to mark India's independence

THE SENGOL THUS CONNECTS THE INDIA OF TODAY WITH THE BHARATIYA CIVILISATION OF THE PAST

Introduction

The Sengol, a sacred sceptre, traces its roots back to the ancient Chola dynasty in Tamil Nadu, where it served as a potent symbol of royal power transfer. However, its significance extends beyond mere political authority, representing the ethical-spiritual authority or 'Dharma Danda' in Indian civilisational tradition.

Today, its relevance is reignited as the Indian government plans to install the Sengol in the new Parliament building, leading to heated debates about its history, authenticity, and symbolism it carries in modern India. Parliament derives its mandate from the people, not from a divine entity or priests. Union home minister Amit Shah announced that

a Sengol (sceptre), which he claims was presented by the last viceroy of British India Lord Mountbatten to Jawaharlal Nehru on August 14,1947 to mark the transfer of power from Britain to India, will be placed in the new parliament building that Prime Minister Modi will inaugurate on Sunday, May 28.

Symbol of royal power transfer: In the history of the Chola dynasty the Sengol played a crucial role as a symbolic instrument for the transfer of power from one king to another. This practice was carried out by the Rajaguru, or the court priest, signifying divine approval for the new monarch.

Spiritual authority: In Indian culture, kings and queens were not considered as the ultimate authority. The Sengol, symbolizing the **Dharma Danda,** was used to remind the monarchs that the highest authority was Dharma, the ethical and spiritual order. During coronation rituals, the priest would use the Sengol to assert that Dharma, not the king, held the ultimate power to punish.

Present-day significance: Today, the Sengol continues to hold relevance in the political symbolism of India. The recent decision of the Indian government to install the Sengol in the new Parliament building underlines its continued importance as a representation of India's ethical and spiritual governance. This is seen as a reflection of the value India places on Dharma and the principles it stands for.

Shah's claim has been questioned for lacking credible evidence in its support. It may be mentioned that the Sengol was the golden sceptre handed over to a king in Tamil Nadu by a God or Goddess for ruling the subjects and ensuring justice in their name. Shah provided an account stating that at the time of independence in August 1947, Mountbatten asked Nehru if any rituals were being followed in India for the transfer of power. Nehru then turned to Chakravarti Rajagopalachari, popularly known as Rajaji, who referred to the tradition that kings in Tamil Nadu followed for transferring power by handing over the Sengol. Shah maintained that Rajaji arranged for a sengol from Tamil Nadu, which Mountbatten handed over to Nehru to signify the transfer of power from Britain to India. So far, he has not authenticated his claim with the support of any credible historical documents.

Constituent assembly and the transfer of power

Such a claim is completely contrary to the constituent assembly's proceedings at midnight on August 14, 1947, when India became independent. Those proceedings illuminatingly reveal that the assembly adopted a motion moved by its president Rajendra Prasad for the transfer of power. Its text is worth quoting:… it should be intimated to the viceroy that (1) the constituent assembly of India has assumed power for the governance of India, and (2) the constituent assembly of India has endorsed the recommendation that Lord Mountbatten be Governor-General of India from the August 15, 1947, and that this message be conveyed forthwith to Lord Mountbatten by the president and Pandit Jawaharlal Nehru.

The adoption of that historic motion was a sequel to the sanctioning of the British parliament for transfer of power by enacting the Indian Independence Bill, 1947, which received royal assent on July 18, 1947 and became an Act. Immediately after that motion was adopted, Prasad and Nehru went to Mountbatten and informed him about the assembly's decision to assume power to govern India. That constituted the real transfer of power, and there was no other way in which power was transferred.

Therefore, Amit Shah's claim is a subversion of the facts of history that are recorded in the constituent assembly's debates and its legislative intent. All those details were reported in The Hindu on August 15, 1947. It also reported that after announcing the assumption of power by the assembly, Nehru retired to an ante-room where a brief religious ceremony was held, and that a priest blessed Nehru and his mission. There was no record or any evidence whatsoever of Mountbatten handing over the sengol to Nehru to mark the transfer of power.

Even eminent biographer of Rajaji and his grandson, Rajmohan Gandhi, expressed bewilderment at Shah's claim confessed with all consternation that he had heard about the sengol for the first time when Shah made his announcement. The compiler of Nehru's selected works, professor Madhavan Palat, asserted that had such a landmark event taken place marking the transfer of power, Nehru would have recorded it in his writings, and the media would have widely and prominently covered it. Now that the hollowness of Shah's claim has been brought to the limelight, it is imperative to examine the correctness of placing the Sengol in the new parliament building and that too near the Lok Sabha speaker's chair.

The Sengol is rooted in the divine right theory

The Sengol is associated with the divine right theory of power and sovereignty, and such a theory has been long rejected and buried in democratic India. In Madurai's Meenakshi temple, an oil painting shows the Goddess Meenakshi presenting a sengol to the king of Madurai, and thereby conveying the message that the king would rule in Her name and do justice to his subjects. There is a mural in the 17th-century Ramalinga Vilasam Palace of Ramanathapuram, where the Goddess Rajarajeshwari is shown handing over the sengol to the king (the sethupathi, who basically ruled Ramanathapuram under the suzerainty of the rulers of Madurai).

The essence of it was that the king derived power not from the people, but from the Goddess. It depicted nothing but the divine right of kingship and firmly symbolised that all power, authority and sovereignty flowed from the Goddess. As in real life, a Goddess could not hand over the Sengol, so the brahmin priest in the ruler's court handed it over to him. Thus, the handing over of the Sengol is rooted in the divine right theory of power and in Brahmanical supremacy. It is, therefore, completely antithetical to democracy and the ideals of equality, equal opportunity and people as the source of power and authority.

Nehru was against the divine right theory

Nehru moved the Objectives Resolution in the constituent assembly on December 13, 1946, and he was shocked when some members of the assembly raised objections to a portion of it that said "sovereignty belongs to the people and rests with the people". Observing on January 22, 1947 in the assembly that "it is certainly a surprising objection", Nehru sharply remarked:

"It may not be very surprising if those people who have lived in an atmosphere of medievalism do not give up their cherished illusions, but in the modern age how can a man believe for a moment in the divine and despotic rights of a human being?"

Asserting that the constituent assembly would never allow – and indeed repudiate – any notion entertained by some people that they would rule over human beings by special divine dispensation, he held that to be an "intolerable presumption". It is hard to believe that Nehru, who rejected the divine right basis of power, authority and sovereignty in January 1947 would accept the Sengol in August that same year from Mountbatten.

He might have accepted the Sengol at his home, when some people who were visiting him possibly gave it to him out of sheer affection or admiration for his high stature and contributions India's freedom. Because it was associated with the divine right theory of power and sovereignty, disregarding people as source of power, Nehru may have decided to keep it in a museum.

Sardar Patel's rejection of the Travancore kingdom's assertion

It is quite instructive to learn from the example of the Travancore Kingdom's princely rulers who, in 1946, refused to join the Indian Union on the grounds that Hinduism and the Hindu God Padmanabhaswamy would be in danger if the kingdom become part of India.

They invoked the divine right theory of sovereignty to defend their decision and declare Travancore an independent country (strangely receiving recognition from Pakistan at that time). They asserted that the sovereignty of Travancore rested with Lord Padmanabha

and He could not be subservient to the sovereignty of India. V.P. Menon mentioned in his book The Story of the Integration of Indian States that the Travancore maharaja's devotion to Padmanabha bordered on fanaticism. Former president K.R. Narayanan, in a speech delivered on August 14, 1998 on the occasion of unveiling a statue of Sardar Patel in parliament, made a poignant reference to that point and said:

When the dewan of Travancore, Sir C.P. Ramaswamy Iyer, held out the argument that no one could negotiate a merger of the state with India as Travancore was ruled "in the name and on behalf of the tutelary deity, Sri Padmanabha", Sardar Patel snapped with a twinkle in his eye, "Is that so? Then please tell me how could Travancore's rulers allow Lord Padmanabha to become subservient to the British crown?"

When Narayanan, as vice-president of India, unveiled a portrait of former Hindu Mahasabha president N.C. Chatterjee in the parliament's central hall, that portrait was also kept in the museum of parliament. That is because when something is kept in a museum, it is seen by lakhs of people. If it is instead kept in parliament, it will be seen by only those who have access to parliament.

Parliament is not the place for the sengol

In any case, the Sengol is associated with the divine right of kingship. We are a democracy and no God, Goddess or Brahmin presents power to the elected ruler – it is the people who by their votes give the mandate to elected rulers. The Sengol must be returned to the museum, and the constitution of India should be the guiding, fundamental law for our parliament and the nation.

What are the arguments supporting the installation of Sengol in Parliament?

Symbol of democratic power transfer: One of the arguments supporting the installation of the Sengol in Parliament is its historical symbolism of power transfer. The installation of this symbol in Parliament is seen as a continuation of this tradition, signifying the democratic power transition that happens in Parliament.

Representation of Indian civilizational tradition: The Sengol is also representative of Indian civilizational tradition, wherein it signified the Dharma Danda, the ethical-spiritual authority. Installing it in Parliament could serve as a constant reminder to lawmakers of their duty to uphold Dharma, or ethical righteousness, in their service to the nation.

Assertion of the prime minister's authority: India's decision to install the Sengol is seen as an assertion of the Prime Minister's authority, who represents not just his political party but the entire nation. The Sengol, symbolizing power, reinforces the Prime Minister's role as the country's leader.

Historical continuity and national pride: The installation of Sengol in Parliament can also be viewed as an act of historical continuity and a reaffirmation of national pride. The Sengol's presence in the Parliament building would serve as a link to India's past, reminding present and future generations of India's rich cultural and historical heritage.

Questioning the prime minister's authority: The opposition members have argued that the Prime Minister has no authority to inaugurate the new parliament and thereby question the decision to install the Sengol. They suggest that this act might be perceived as a unilateral decision rather than a democratic one.

Disputes over the Sengol's historicity: Some regional political party members have raised questions about the authenticity of the story surrounding the Sengol. They contend that before making such a significant decision, the historicity of the Sengol should be thoroughly vetted and agreed upon.

Possible misinterpretation of symbolism: There's a concern that the Sengol, which historically represents the transfer of power and Dharma, might be misinterpreted or exploited for political purposes. Critics argue that its sacred symbolism could be diminished or altered when installed in a political environment like Parliament.

What are similar global and local examples like Sengol and their reasons behind it?

Royal sceptres in Western monarchies: In Western civilizations, especially in countries like Norway, Sweden, and the UK, the sceptre has been a part of royal regalia dating back to the times of the Greek and Mesopotamian civilizations. It represents the sovereignty and authority of the monarch. An example was seen as recently as in September 2022, when a scepter was placed on the coffin of Queen Elizabeth II, and again at the coronation of King Charles.

Local Indian examples of similar symbols

Dharma Danda: This is another example of a symbolic scepter used in Indian tradition. During coronation rituals, the king, after formally ascending the throne, would proclaim his impunity, to which the priest would respond by patting the king's crown with the Dharma Danda, signifying that Dharma, the ethical-spiritual order, has the power to punish the king. The Sengol represented this tradition of the Dharma Danda.

Symbols of power in other Indian kingdoms: There are numerous examples of symbols of power and authority used in other Indian kingdoms. For instance, the Pallavas and Pandyas had their own unique symbols of power, though these might not have been identical to the Sengol. These symbols served a similar purpose, representing the transfer of power and the authority of the ruler.

Public awareness and engagement: Lastly, the public should be educated about the history and significance of the Sengol. This will ensure an informed discussion around its installation in the Parliament, leading to a decision that respects the sentiments of the majority while upholding the historical and cultural heritage of the country.

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BEST PRACTICES IN SRI ADICHUNCHANAGIRI COLLEGE OF ARTS AND COMMERCE LIBRARY: A STUDY

Kavitha B L
*Librarian, Sri Adichunchanagiri College of Arts & Commerce,
Nagamangala, Email- kavitha.mlisc2013@gmail.com*

ABSTRACT
The role of libraries is very important in the information explosion era. The progress of any country is strongly linked to the quality of education. Likewise, in NAAC, the college library builds institution infrastructure. Library best practices give strength to NAAC-participating colleges. In this paper, I have discussed the best practices in the library of Sri Adichunchanagiri College of Arts and Commerce (S.A.C.A.C.) in Nagamangala. Current status of collection development, library services, internet facilities, book bank facilities, and information about competitive exams.
Keywords: *Best Practices, Library Services, NAAC*

Introduction

The colleges are an essential component of higher education, and college libraries serve as the primary source of information during the learning process. The college library provides a link between teaching and learning, as well as a location to supplement resources that are beyond the scope of the classroom. College libraries play an important role in the educational experiences of both students and faculty.

In the present-day scenario, fast-accelerating educational innovations become necessary for continuous review and improvement of the overall functions of libraries and information centres. In the present age of information explosion, libraries and information resource centres play not just an important learning-support function, but the library itself has been emerging as a site of learning, sometimes more important than even the classroom. In this situation, best practices play an important role.

Best practices:

The best practices are sets of methods and techniques that produce optimal results, increase efficiency and develop structured processes. The best practices in the development of infrastructure and learning resources and their sustained practices lead to continuous improvement.

ODLIS (Online Dictionary of Library and Information Science) describes best practices as follows: "In the application of theory to real-life situations, procedures that, when properly applied, consistently yield superior results and are therefore used as reference points in evaluating the effectiveness of alternative methods of accomplishing the same task. Best practices are identified by examining empirical evidence of success."

Concise Oxford English Dictionary describes 'Best practices as quality of most excellent or desirable type or most appropriate, advantageous, highly improved, outstanding, par excellence services or the customary or expected procedure or way of doing something that is usual or expected way in a particular organization or situation, guidelines for good practices. In this process of developing best practices we take action rather than good ideas, and we improve our skills.'

According to **National Board of Accreditation and Assessment** (NAAC) "Best practice may be innovative and be a philosophy, policy, strategy, program, process or practice that solve a problem or create new opportunities and positively impact on organizations. Institutional excellence is the aggregate of the best practices followed in different areas of institutional activities."

Objective of the study: The study highlight the guidelines provides by the NAAC for the academic libraries and to identify the different areas where best practices can be implemented in academic libraries.

Guidelines of National Accreditation and Assessment Council (NAAC) in best practices:

Library best practices are available on NAAC website and they assure that regular updating will be made with consultations on contributing institutions. For affiliated college and university libraries NAAC has listed below are some of the best practices that can enhance the academic information environment and usability.

➢ Computerization of library with standard software.
➢ Inclusion of sufficient information about the library in the college/ university prospectus.
➢ Compiling student/teacher attendance statistics and locating the same on the notice board.
➢ Displaying newspaper clippings on the notice board periodically.
➢ Career/Employment Information/ Services.
➢ Internet Facilities to different user groups.
➢ Information literacy programs.
➢ Suggestion box and timely response.
➢ Displaying new arrivals and circulating a list of those to academic departments.
➢ Conducting book exhibitions on different occasions.
➢ Organizing book talks.
➢ Instituting Annual Best User award for students.
➢ Organizing competitions annually.
➢ Conducting user surveys periodically.

Best Practices of Sri Adichunchanagiri College of Arts & Commerce, Nagamnagala library.

Sri Adichunchanagiri College of Arts & Commerce, library adopted NAAC developed set of best practices followed in academic libraries and worked under the following four broad areas and their respected best practices:

➢ Management and Administration of Library:
➢ Collection and Services.
➢ Extent of User Services.
➢ Use of Technology.

Library Management

Library management is an important aspect of any types of library. The library administration manages the library acquisition of reading materials, cataloguing, circulation of reading materials, serial control etc. Library automated by Libsoft 12.0 software and all modules are functioning very well. Library connected with internet broad band connection.

Collection Development of Sri Adichunchanagiri College of Arts & Commerce Library

S.A.C.A.C. is situated in the town of Nagamangala, Mandya district. Library is computerized with library management software Libsoft 12.0. The main aim of the collection development is to make available all types of important reading material, i.e. books, reference books, text books, reports, standards, theses, serials, journals, non book materials resources etc to support learning, teaching and research pursuits of the readers. The college. S.A.C.A.C. College Library has following collection on 10th April 2024:

Sr. No.	Types of Materials	No. of Materials
1.	Books	26442
2.	Book Bank Scheme Books	1050
3.	CDs & DVDs	10
4.	Maps	21
5.	Print Periodicals	22

6.	Newspapers	12
7.	N-List e journals	6000+
8.	N-List e books	1,99,500+
9.	NDL e books	6,00,000

User services:

All types of user services are provide in the library. Few best practices in library are as follows:

Library services to external readers

➢ If some reader wishes to use library facilities for some period, he/she has to take Principal permission and if the Principal has allowed he/she is given the library membership.
➢ He/she is informed about the rules and regulations of the library.
➢ MOU students can avail reading room facility.

Internet Facility in the Library

Internet connection of BSNL Broad Band in college library. All computers in the library are connected using LAN. They are connected to internet connection. The library has subscribed for N-LIST online resources. The students can access through registered user ID and passwords. All these facilities are provided to students, teachers, and non-teaching staff free off cost to fulfill their educational needs.

Benefits of Internet Facility in the Library:

➢ The readers can avail updated knowledge with Internet facility to fulfill their educational needs.
➢ The readers are benefitted with online resources.
➢ Students make use of Internet facility for filling up e-scholarship forms, to use N-LIST journals, e-books, to check emails, to get information from govt. websites, to fill online job application forms, to check results online, etc
➢ The students make use of Internet to fill up SDA, FDA, SET, NET, Enrollment, E-Scholarship forms, Banking Recruitment applications, Railway Recruitment applications, other online forms, etc.
➢ The teachers get information about the research made in their concerned subjects.
➢ Teachers to take help from internet sources in their teaching learning methods and reading materials.
➢ The PG students use for dissertation work.

Book Bank Facility

In our college library, we are providing service of Book Bank Scheme for Backward Class students funded by UGC. As per guidelines of university of Mysuru we have purchased text book and reference books and issued to backward class students.

Displaying newspaper clippings on the notice board periodically:

Daily newspaper special news photocopy display in the library notice board and file that news clips in a separate file. It is helpful for students and faculty. Education and special issue-related articles are displayed on the notice board.

Career/Employment Information/ Service:

The library provides books, magazines, and other reading materials for this practice. We purchase reading material as per the requirements of the time. The results regarding recruitment and competitive exams are displayed from time to time. The library subscribes to the concerned periodicals. A general knowledge test based on various competitive exams is conducted with the support of college professors from various subjects. Timely, we are sharing recruitment notifications with students' app groups.

The Availability of periodicals devoted to career and completive exams like Spardha Spoorthi (Kannada Monthly), Spardha Vijetha (Kannada Monthly), Avalokana (Kannada Monthly), Competition Affairs (English Monthly), Yojana (Kannada and English Monthly), Kurukshetra (Kannada and English Monthly), University News, Newspapers, etc.

Suggestion box and timely response:

A suggestion box service gives you the opportunity to share your suggestions, questions, comments, and concerns. The suggestion box is for library users to communicate with the library administration. This service is available in our library, and every month we open the box and receive a timely response. This service helps to improve library collection and faculty development. Students are asked to subscribe to different competitive exam magazines.

Displaying new arrivals: The newly arrived book's front page is displayed on the notice board. The list of new arrivals (books and journals) is sent to students and faculty in the whatsapp group to inform them about the availability of new books and journals. It helps users use new arrivals.

Conducting book exhibitions on different occasions:

The Book Exhibition is a book fair and a special occasion for readers. Every year during National Library Week, a book exhibition is organized in the library. All competitive exam books, all semester books, and general books exhibit in the library. A variety of books are exhibited on that day for the readers to learn about the various sources of information. Interested students and faculty can purchase the books in the exhibition. Discounts are also given by the publishers. The library plays a great role in encouraging people to inculcate a reading habit in them.

Organizing book talks:

Yearly, two book talks will be organized in the library. To promote reading habits, the student book talk competition is also organized in the library. Students select their choice book to present in the competition. They will present book talks on the competition day, and judges will select the best presentations. The first, second, and third prizes will be distributed to students. The competition date, enrolment date, and rules will be announced before one month of the competition. This is the most innovative program, and students enjoy reading and presenting their favourite books.

Instituting Annual Best User award for students:

The library user award motivates students to borrow and read books, which also attracts students to the library. The awardee is selected based upon a regular visit to the library, behaviour and interaction with the library staff, suggestions for betterment and library usage, as well as the circulation report of the database. It is approved by the library committee. It is inspiring them to use the library more and more.

Organizing competitions annually:

The library, with the collaboration of IQAC, conducts competitive exams and useful quiz competitions for students. It encourages the students to read general knowledge books and magazines.

Conducting user surveys periodically:

In the development of libraries, library collection and library facility feedback play an important role. To know how best our programs reaching the users and how best we can reach them effectively is essential. Feedback helps us improve more.

Conclusion

The best practices are helpful for improving quality of library services. The best practices adopted in college library bridge the gap between library collection & user community for maximum utilization of the resources. Library adopted various best practices in its administration, management, collection & services, extent of the use of services and use of technology. The technology based services are essential for providing up-to-date information to user community. In its effective implementation that make significant change in enhancing the use of information sources/services and users satisfaction level. The above best practices by every college library create its own image in the mind of students, faculty & society. The best practices adopted makes students to look at library professional as knowledge manager.

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THE CONSEQUENCE OF YOGASANA, PRANAYAMA AND MEDITATION ON THE PERFORMANCE OF CRICKET PLAYERS

Krishna Kumar K.V.
(Research Scholar) Annamalai University
G.F.G.C. Hesarghatta, Bengaluru

Dr. Acharya Manjappa.V
Principal, Vigour Institute of Yoga Science & Studies

ABSTRACT

The present scenarios have witnessed a remarkable expansion for the application of scientific principles to physical education and sports for healthful living. Application of science to the physical education and sports is particularly evident in the field of physiology and psychology. Physical educationists are quickly realizing the importance of acquiring basic physiological and psychological knowledge that can be put to good effect. Body is the basic cause of performance of religion. For man to reach his life's goal it is important for him to have a healthy body. Just as the saying "Health is wealth" goes it is better to life a short but healthy life rather than live a long but a life of sickness. Therefore we should possess good wealth throughout our lives. In recent years due to increased comforts caused by industrialization and automation, participation in physical activities has decreased. Mental stress, sleeplessness, worries, luxurious life, intake of processed food has increased leading to a decrease in immunity, leading to an increase in diseases. There a solution for this? How do you get relief from these ailments? Arise in one's mind. The solution to this is yoga or regular practice of yoga. Yoga is an ancient form of exercise that focuses on strength, flexibility and breathing to boost physical and mental wellbeing. Yoga literally means "union" and refers to the union of mind and body. Yoga is a holistic practice which emphasizes mind – body connectedness and involves postures, breathing, and meditation. Pathanjali is a great enlightened master, great inner scientist of the inner world and founder of the system of yoga. The game cricket can improve endurance, stamina, physical fitness and hand eye-coordination. It also involves short bursts of sprinting and throwing which is good for cardiovascular health. The game is good for developing team skills. It can help with social interaction and helps to work with other people. The purpose of the present study is to know the effect of selected Yogasanas, Pranayamas & Meditation techniques on the ability, fitness & even performance of the cricket players.

Keywords: *Yoga, Cricket, Meditation, Pranayama, Strength, Flexibility.*

INTRODUCTION:

Many international cricket clubs in Australia, South Africa, New Zealand & the US have used this centuries-old practice from India as a progressive training technique for some time. Yoga is both preventive and therapeutic and has shown to offer both physical and mental benefits to the body and mind. Yoga is distinctly different from other kinds of exercise as it generates motion without causing strain and imbalances in the body. Therefore the "postures" are the physical positions that coordinate breath with movement and we hold these positions to stretch and strengthen different parts of the body. They systematically work all the major muscle groups, including the back, neck, and shoulders, deep abdominals, hip and buttock muscles and even ankles, feet, wrists and hands. Although most poses are non-aerobic in nature, they do in fact send oxygen to the cells in the body by way of conscious deep breathing and sustained stretching& contraction of different muscle groups. Yoga can help to check any imbalance in muscular development

and will enable the body to function more efficiently. If the body is flexible and supple, it will be less prone to injuries as the joints will be kept lubricated. "When the surface of a lake is still, one can see to the bottom very clearly" this is impossible when the surface is agitated by waves. In the same way, when the mind is still we can control mental agitation by focusing on perfect concentration. When a player, is trying to fulfill thousands, hundreds of thousands or if playing for their country, millions of people's expectations their minds are completely stressed and their natural efficiency diminishes. No amount of coaching or training can prepare for doubt or worry entering the mind of a player during a game. By holding steady postures and concentrating on deep abdominal breathing we can increase body awareness, relieve chronic stress patterns in the body, relax the mind, center ones attention, sharpen concentration and "stay in the zone!" When balancing poses are mastered the cricket player is then conditioned to unconsciously recover from any imbalances their body may experience, staying centered inaction, moment by moment during play. Yoga also helps strengthen connective tissue, break down adhesions (tiny scar tissue) from old injuries and over-training that have tightened as we age, thus helping create mobility of the joints and an anti-aging posture. The deep rhythmic breathing performed in yoga also creates and builds up one's life force energies or Prana, also called Qi or Chi in Chinese healing and martial arts. So, one actually creates more energy than is expended during a yoga session. The type of energy that is not from the caloric intake of our diet, but it's a cosmic energy.

PRINCIPLES OF YOGA:

The Five Principles of Yoga are the basis of attaining a healthy body and mind through the practice of yoga. In this section, we give you detailed information on these five principles:

- Proper Relaxation
- Proper Exercise
- Proper Breathing
- Proper Diet
- Positive Thinking and Meditation

The health beneficial effects of yoga: Most of the studies suggest that yoga is a safe and effective way to increase physical activity, especially strength, flexibility and balance. There's some regular practice is beneficial for:

- Leads to total health of the body.
- Tranquil the mind.
- Improves mental strength and perception.
- Increases concentration.

FITNESS AND YOGA IN CRICKET:

I. IMPROVED STRENGTH:

The routine and consistent practice of the various yogasanas has helps to build strength and improve lean muscle mass. These gains have enhanced core body stability and significantly impeded overuse injury by strengthening the supportive but otherwise under-developed muscles surrounding the more utilized muscles, creating a more balanced and optimally functional overall strength.

II. BALANCE:

Through a consistent yoga practice, my coordination and balance have improved immensely. Why is this important? Better balance and coordination means enhanced control over how I move my body, which in turn leads to better technique and form.

III. FLEXIBILITY:

Yoga invariably improves joint and muscular flexibility, which is crucial to the body's overall structural soundness. Enhanced joint and muscle pliancy translates to a greater range of motion, or an increase in the performance latitude for a particular movement or series of movements. There is some dispute about the advisability of "over"

stretching (for players in particular), I remain a huge advocate, finding that the more I work to maintain my flexibility (something that wanes with age), and the less likely I am to suffer an overuse injury.

IV. LIBERATES THE MIND:

The ability to create a stress-free mind is a significant benefit of yoga practice. The physical practice& Pranayama is used as a tool to enhance breath control, which helps improve focus and concentration, allowing clarity of thought and clear decision making. Mental practice in any sport will teach you how to gain control of your emotional states, so arousal levels and anxiety don't impede your performance.

V. MEDITATION IS A MENTAL PRACTICE PROVEN TO:

- Reduce anxiety and stress
- Reduce cortical levels and increase calming hormones
- Improve cognitive function
- Reduce blood pressure and heart rate
- Increase immune function
- These benefits combine to allow for better rest, sleep and recovery, as well as provide the ability to think more clearly under pressure.

OBJECTIVES OF YOGA IN CRICKET:

Health, physical fitness and emotional stability are the objectives which bring yoga and physical education on a common platform for the benefit of the human individual. Health is a more general and comprehensive term conveying the 'feeling of well-being', while physical fitness is a more specific term. Physical fitness is the capacity of an individual to perform a given task at a particular time. Health and physical fitness are not static. They are always changing they follow the law can be maintained only by carefully selected physical activities which are called 'exercise'. The utility of the particular exercise program can be evaluated only in the forms of the effects that one obtained in promoting a particular factor of physical fitness. Trough constant practice of yoga, one can overcome all difficulties and eradicate all weakness pain can be transmitted in to 24bliss, sorrow in to joys, and failure into success and sickness in to perfect health. Determination, patience and persistence lead one to goal.

HEALTH AND YOGA IN CRICKET:

Yoga has both preventive and therapeutic benefits. It has been shown to offer both physical and mental benefits to the body and the mind. The many physical benefits of Hatha yoga are: it improves flexibility and muscle joint mobility; strengthens, tones, and builds muscles; corrects posture; strengthens the spine; eases back pain; improves muscular-skeletal conditions such as bad knees, tight shoulders and neck, swayback and scoliosis; increases stamina; creates balance and grace; stimulates the glands of the endocrine system; improves digestion and elimination; increases circulation; improves heart conditions; improves breathing disorders; boosts immune response; decreases cholesterol and blood sugar levels; and encourages weight loss. The mental benefits include: it increases body awareness; relieves chronic stress patterns in the body; refreshes the body by relieving International Journal of Physical Education, Sports and Health muscle strain; relaxes the mind and body; centers attention; sharpens concentration; and frees the spirit. Western doctors and scientists are discovering additional health benefits of hatha yoga. Studies have shown that it can relieve the symptoms of several common and potentially life-threatening illnesses; such as arthritis, arteriosclerosis, chronic fatigue, diabetes, AIDS, asthma and obesity. Many believe it even fends off the ravages of old age.

HEALTH BENEFITS OF YOGA:

- Stable autonomic nervous system equilibrium, with a tendency toward parasympathetic nervous system dominance rather than the usual stress – induced sympathetic nervous system dominance.
- Pulse rate decreases.

- Respiratory rate decreases
- Blood pressure decreases (of special significance for hypo reactors)
- Galvanic Skin Response (GSR) increases
- EEG-alpha waves increase (theta, delta and beta waves also increase during various stages of meditation)
- Cardiovascular efficiency increases
- Respiratory efficiency increases (respiratory amplitude and smoothness increase, tidal volume increases, vital capacity increases, breath –holding time increases).
- Gastrointestinal function normalizes
- Endocrine function normalizes
- Excretory functions improve
- Muscular-skeletal flexibility and joint range of motion increases
- Posture improves
- Strength and resiliency increase
- Endurance increases
- Energy level increases
- Weight normalizes
- Sleep improves
- Immunity increases
- Pain decreases

YOGA IMPROVES:
- Strengthens deep connective tissue preventing or minimizing injury.
- Creates an overall body flexibility. Increases range of motion and mobility.
- Dramatically enhances physical balance by developing the athlete's awareness of his body's center place, thus keeping their body balanced in action, moment by moment, giving the ability to recover from or prevent falls, while enhancing agility and maneuverability.
- Improves circulation, massages internal organs and glands for optimum health.
- The yoga breath circulates and detoxifies the LYMPH FLUID to speed up recovery time from training 15% faster, eliminating fatigue.
- The yoga breath builds up increases one's life force energy.
- Dissolves pre competition anxiety and stress. Helps to balance& manage emotions that could cloud focus, concentration& judgment.
- Trains the athlete gets and stays in the mental zone.
- Enhances sensory acuity, mental focus, concentration, mental clarity, will power, and determination.

CONCLUSION OF THE STUDY:

As highlighted above, researcher find out that yoga in cricket as important as other think it helps us in different ways and different levels in a crickets men life. We have improved our performance by daily yoga practicing in order to perform a sporting action efficiently and effectively, a person needs to have a high degree of concentration and focus with a mind that is calm and controlled, Yoga can help a sportsperson to have evenness of mind and control of their thoughts even during stress or adversity. Yoga can play a key role in cultivating mind control and concentration which helps a sportsperson to perform at their peak leaves and yoga helps us a lot.

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THE ROLE OF SOCIALIZATION IN CONFIGURING THE SELF-IDENTITY AMONG SPORTS COMPETITORS

Lakshmeesha. B.N.
College Director of Physical Education
B.M. Shetty Government First Grade College
Konanur, Hassan District-573130

Dr.Pashupathi
College Director of Physical Education
G.F.G.C. Bannur, Mysore Dist.

ABSTRACT

The people have conducted various research on sports and socialization, many assumptions were put forth in understanding child development through sports activities. There is a strong belief that sports can imbibe courage, social behaviour, leadership qualities among young in minds. Inherent character building is prime motto of any sports activity, the skills, competitiveness, mental resilience all play key roles in performance of the sports competitors. To nurture such qualities socialization is basic, it regulates thought process, conformity to the rules and norms to authority making individual more disciplined. Sports socialize young sports competitors about teamwork, achievement, competition, productivity of sports activity. Hence youth will be well organized to take up challenges in sports and games in a well-balanced spirit. Many sports scholars have correlated sports participation as positive trait.

Handful of studies have been done on socialization effects on sports competitors since it addresses the sense of competence, self-esteem and even body image. In contemporary scenario role of sports, games and participation promotes value- orientations in every socio-cultural contexts that deals with well-structured internalization of sports ethics. Sports competitors are self-reflective, active and agile decision makers in critical situations of games. This reciprocity and interplay of social interactions mould youngsters into competitive sports people, since sports are cultural practices with complex meaning. The socialization and sports participation defiantly induces social interaction among competitors. This paper addresses the issues of self-identity through sports participation that contributes to progressive personality.

***Keywords**- Socialization, Self-Identity, Participation, Productivity, Competitiveness.*

Introduction

The socialization plays a key role in person's identity, it develops gender roles. The gender role displays categorization and they construct gender through aspects of life. They acquire habits, beliefs and knowledge of the society through various training. Sports play a dominant role in socialization process through all age groups in which they participate.Sports play a specific role in shaping male and female sports participants. Various norms that are inculcated through this agent are social behaviours and beliefs that are accepted. Socialization is a guideline for sports people that provides confidence, leadership and also masculine guidelines for male sports participants.

A series of training the athletes become emotionally attached to sports that they involve in. socialization teaches sports provide the young teens a reason to get together, to communicate with fellow sports people. Shaping sports participants to be aggressive and tough attitude they learn to deal with setbacks, injuries and so on. Because socialization helps us to inhert and circulate norms, customs and ideologies with habit of participation. Today influence of sports activities on youth creates identity, it teaches the lesson of variation in sports.

The learning, identity and social conformity are shaped well through values induced through sportsmanship and the actions that are deep rooted to act and instil a balanced role play. The passion of sports and practice is important for sports participants since it shapes from amateur to professional player in this juncture socialization of sportsmanship becomes key to success. The socialization lays groundwork for future endeavours in sports achievement, the lesson of sports goes deeper than just practicing or playing game. They help build character that will prepare individual to overcome obstacles in life. It is believed that sports are very competitive and that sportsmanship put into teen people to teach discipline, perseverance, honesty continues to the point that sports are very competitive and teaches complex matters of sportsmanship. Contemporary athletes are faced with many challenges and pressures in and out of realms of their sport. Such pressures can inhibit athletes' performance gradually therefore socialization is such a important aspect of sports participants.

Socialization inculcates skills to succeed.

It is widely assumed that sports are taught to teen people to achieve discipline, competition, teamwork and productivity. Because socialization rapidly expand horizons of human personality, in case of sports participants structured. Socialization have focussed on the effects of sports participation on personality, moral development, motivation, competence, self esteem.the socialization has focussed on the role of games, play and formation of value orientations in particular cultural contexts. Socialization dealing with sports ensures initiation and continuation of sport participation. It promotes participation and social harmony, by internalising values and orientations enabling them to participate inestablished social systems. Hence sports area social institution that induces skills to sports participants to excel.

Socialization makes individual active and self-reflexive.

Individuals are active and self-reflexive decision makers who define and act on the basis of socialization process. It is very important for the sports participants since it provides reciprocity and inter-play of goals and self-perceptions with sound social interaction which is very important for sports persons. With reflexive identities, patterns, social organizations and allotted roles it is very easy to accommodate oneself to particular sports cultural settings. Because sports and cultural practices are variable and forms the meanings. Many researches have represented in the way scholars have studied socialization into sports, out of sports, and through sports. Sports individual will be active and self-reflexive with these traits.

Socialization indicates decision making process

It involves decision making process involving self-reflection, social acceptance, social support and culturally based ideas about sports participation. Sports people assess opportunities and consider how participation are made continually and how participation fits with their sense of development, self, and how they are connected with self and world around them. A growing emphasis on physical fitness in many socities also has highlighted awareness about physical activities especially sports. This led to the expansion of youth sports and interscholastic teams that serve as feeder system to main line sports and here socialization decides the decision-making process of individuals in sports.

Socialization builds character through sports

The wide belief that socialization builds character in sports has originated since eighteenth century. Consequences of sports participation varies by society, but the idea that sports produce positive socialization effects has been widely accepted everywhere. Researchers have believed that everyone who plays sports has similar experiences, all sports have measurable impact on participants. Everyone playing sports learn some lessons and lessons are unavailable in participating in other activities. Hence socialization in sports are social constructions and builds diverse character and experiences.

Socialization provides all round development in sports participation

The socialization provides primary, secondary, developmental, anticipatory and resocialization. This type of socialization happens when teen/young sports participants learns values, ethics, norms and behaviours that should be displayed in specific sports culture because it involves person practices or rehearses for future endeavours in sports arena. Here due to repeated socialization of same young sports personals shift from one stage of sports participation to advanced stage of learning and it is also said to be resocialization.

Conclusion

It is admissible that it is difficult to develop programs designed to enhance the mental endurance without socialization. Sports participants work in youth organizing and critical empowerment programs may be willing to form cooperative and supportive relationships in the sports activities that build in them courage and leadership abilities. In recent times it is noticed that growth in the visibility and popularity of sports in the world is creating more favourable social climate, possibly through socialization.

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ENHANCING ACADEMIC LIBRARY SERVICES THROUGH SMART LIBRARY APPLICATIONS: A PATRON-CENTRIC APPROACH

M.R.Ramesh
Indira Gandhi Centre for Atomic Research,
Kalpakkam, Tamilnadu, India
Email: gascramesh@gmail.com

ABSTRACT

Smart library applications have emerged as innovative tools for transforming traditional academic library services, offering enhanced accessibility, personalized experiences, and efficient resource management. This research paper explores the applications of smart libraries in academic settings, focusing on their role in improving patron services and experiences.

The evolution of smart library applications has revolutionized the way academic libraries engage with their patrons, offering a diverse range of features and functionalities tailored to meet the evolving needs of modern scholars and researchers. Through the integration of technologies such as artificial intelligence, machine learning, Internet of Things (IoT), and data analytics, smart library applications empower patrons with seamless access to library resources, personalized recommendations, and interactive learning experiences.

Keyareas of application include:

- **Resource Discovery and Access:** Smart library applications leverage advanced search algorithms and recommendation engines to facilitate seamless discovery and access to academic resources, including books, journals, databases, and multimedia content. Through intuitive interfaces and personalized search results, patrons can efficiently locate relevant materials, thereby enhancing their research productivity and scholarly pursuits.

- **Collaboration and Communication:** Smart library applications foster collaborative environments by enabling patrons to connect with peers, faculty members, and librarians through integrated communication tools and virtual collaboration spaces. Features such as discussion forums, virtual study rooms, and instant messaging facilitate knowledge sharing, peer-to-peer learning, and collaborative research endeavors.

- **Personalized Learning Support:** Smart library applications employ adaptive learning technologies to deliver personalized learning support tailored to individual patron preferences, learning styles, and academic goals. Through adaptive tutorials, interactive quizzes, and targeted learning resources, patrons receive tailored assistance and guidance, thereby enhancing their academic success and information literacy skills.

- **Space and Facility Management:** Smart library applications facilitate efficient management of library spaces and facilities through IoT-enabled sensors, occupancy tracking systems, and space utilization analytics. Patrons can access real-time information on seat availability, room reservations, and facility amenities, enabling them to make informed decisions and optimize their library experience.

In conclusion, smart library applications represent a transformative paradigm shift in academic library services, offering unprecedented opportunities for patron engagement, learning enhancement, and resource optimization. By harnessing the power of technology and innovation, academic libraries can effectively meet the diverse needs and expectations of their patrons, thereby fostering a culture of lifelong learning and scholarly excellence.

Keywords: *Smart libraries, Academic libraries, Library applications, Patron services, Personalization, Resource discovery, Collaboration, Communication, Learning support, Space management.*

Introduction

In the digital age, academic libraries have undergone a profound transformation, adapting to the evolving needs and expectations of their patrons. With the advent of technology, the role of libraries has expanded beyond traditional book repositories to dynamic hubs of knowledge dissemination and collaboration. This paper explores the emerging trend of smart library applications and their potential to revolutionize academic library services, focusing on a patron-centric approach.

Overview of the Evolving Role of Academic Libraries

Academic libraries have traditionally served as repositories of knowledge, offering access to physical collections of books, journals, and other resources. However, the digital revolution has spurred a fundamental shift in their role. Today, academic libraries are embracing technology to provide seamless access to a wealth of digital resources, including e-books, online databases, and multimedia materials. Moreover, they are increasingly becoming collaborative spaces that foster innovation, research, and learning.

Introduction to Smart Library Applications

Smart library applications represent the next frontier in library innovation, leveraging technology to enhance the user experience and streamline library operations. These applications encompass a wide range of tools and technologies, including mobile apps, RFID systems, virtual reality (VR) experiences, and artificial intelligence (AI) assistants. By harnessing the power of these technologies, academic libraries can offer personalized services, facilitate efficient resource management, and improve accessibility for diverse user groups.

Potential Impact on Enhancing Library Services

Smart library applications hold immense promise for enhancing various aspects of library services. For instance, mobile apps can empower patrons to access library resources and services anytime, anywhere, fostering greater convenience and flexibility. RFID systems enable efficient inventory management and self-checkout options, reducing administrative burden and enhancing the overall user experience. Virtual reality experiences can provide immersive learning opportunities, while AI assistants can offer personalized recommendations and assistance to patrons.

Purpose of the Study and Outline of the Paper

The purpose of this study is to explore the potential of smart library applications in enhancing academic library services from a patron-centric perspective. Through a comprehensive review of existing literature and case studies, this paper aims to:

- Examine the evolving role of academic libraries in the digital age.
- Provide an overview of smart library applications and their various functionalities.
- Analyze the potential impact of smart library applications on enhancing library services, focusing on key areas such as accessibility, user experience, and resource management.
- Discuss challenges and opportunities associated with the adoption of smart library applications in academic libraries.
- Offer recommendations for implementing a patron-centric approach to smart library application development and deployment.

In summary, this paper aims to shed light on the transformative potential of smart library applications and advocate for a patron-centric approach to library innovation in the digital age. By harnessing the power of technology and prioritizing the needs of patrons, academic libraries can continue to evolve and thrive as vibrant hubs of knowledge and learning.

Evolution of Academic Library Services:

Academic libraries have long been pillars of learning institutions, providing invaluable resources and support to students, faculty, and researchers. However, the landscape of academic libraries has undergone significant evolution over the years, driven by changes in technology, user expectations, and educational paradigms. This paper explores the historical evolution of academic library services, the challenges faced by these institutions in meeting evolving patron needs, and the pivotal role of technology in reshaping library services. Furthermore, it discusses the potential of smart library applications in enhancing academic library services, adopting a patron-centric approach.

Historical Overview

Academic libraries trace their roots back to ancient civilizations, where collections of scrolls and manuscripts were curated for scholarly pursuits. Throughout history, libraries evolved into centers of knowledge preservation, dissemination, and scholarly communication. Traditional functions of academic libraries included collection development, cataloging, reference services, and user education. These libraries served as physical repositories of printed materials, fostering a culture of research and learning within academic communities.

Challenges Faced by Academic Libraries

In recent decades, academic libraries have encountered numerous challenges in keeping pace with the evolving needs of patrons. One significant challenge is the rapid expansion of information sources and formats, including digital resources, multimedia materials, and open-access publications. Managing these diverse collections while ensuring their accessibility presents logistical and financial hurdles for libraries. Additionally, shifting educational paradigms, such as online learning and interdisciplinary studies, demand flexible and adaptable library services. Furthermore, budget constraints, space limitations, and changing user demographics pose additional challenges for academic libraries striving to meet the diverse needs of their patrons.

Role of Technology

Technology has been a driving force behind the transformation of academic library services. The advent of digital libraries, online catalogs, and electronic databases revolutionized access to information, making resources available remotely and enabling greater collaboration among researchers. Furthermore, technologies such as RFID systems, self-checkout stations, and automated retrieval systems have enhanced operational efficiency and improved user experiences within libraries. Moreover, the proliferation of mobile devices and the internet has reshaped user expectations, with patrons increasingly seeking seamless access to library resources and services anytime, anywhere.

Enhancing Academic Library Services Through Smart Library Applications

Smart library applications represent a promising avenue for enhancing academic library services in alignment with patron needs and expectations. These applications leverage technologies such as artificial intelligence, machine learning, and data analytics to personalize services, streamline operations, and empower users. By adopting a patron-centric approach, smart library applications can provide tailored recommendations, facilitate real-time assistance, and foster community engagement within academic library spaces. Moreover, these applications can enable seamless integration with existing library systems, ensuring interoperability and scalability.

Smart Library Applications: Concept and Components

Academic libraries play a pivotal role in supporting the research and learning endeavors of students, faculty, and researchers. However, the traditional library model is undergoing significant changes due to technological advancements and evolving user expectations. Smart library applications emerge as a solution to modernize library services, offering innovative features and functionalities tailored to meet the diverse needs of patrons. This paper aims to elucidate the concept of smart library applications, examine their

components and functionalities, and showcase their potential in enhancing academic library services through a patron-centric lens.

Definition and Scope of Smart Library Applications

Smart library applications encompass a diverse range of digital tools and platforms designed to optimize library operations, facilitate access to resources, and enhance user engagement. These applications leverage technologies such as artificial intelligence (AI), machine learning, data analytics, and the Internet of Things (IoT) to deliver personalized and intelligent services. The scope of smart library applications extends beyond traditional library management systems to encompass mobile apps, virtual assistants, recommendation engines, and interactive interfaces. By harnessing the power of technology, smart library applications aim to transform the library experience, making it more interactive, efficient, and user-centric.

Key Components and Functionalities of Smart Library Applications

Smart library applications consist of several key components and functionalities that enable them to deliver value-added services to patrons. These include:

Personalized Recommendations: Smart algorithms analyze user preferences, borrowing history, and research interests to provide tailored recommendations for books, articles, and other resources.

Mobile Access: Mobile apps enable patrons to access library resources, search catalogs, reserve materials, and receive notifications on their smartphones or tablets, enhancing convenience and accessibility.

Virtual Assistants: AI-powered virtual assistants, such as chatbots, respond to patron queries, provide assistance with library services, and offer real-time support, improving user engagement and satisfaction.

RFID Technology: RFID tags and sensors automate processes such as book checkout, return, and inventory management, streamlining operations and reducing manual effort.

Data Analytics: Advanced analytics tools gather and analyze usage data, user behavior patterns, and feedback to gain insights into patron needs and preferences, informing decision-making and service improvements.

Examples of Existing Smart Library Applications and Their Features

Several academic libraries have embraced smart library applications to enhance their services and meet the evolving needs of patrons. Examples include:

Harvard Library's Hollis+: A comprehensive discovery platform that offers personalized search capabilities, citation management tools, and access to millions of digital and physical resources.

University of Amsterdam Library's SmartLibraries: An innovative mobile app that provides location-based services, interactive maps, and personalized recommendations to guide users within the library space and facilitate resource discovery.

Singapore Management University Library's AskLibrary: An AI-powered chatbot that assists patrons with research inquiries, library policies, and database access, offering round-the-clock support and improving user satisfaction.

Patron-Centric Approach in Academic Libraries

In recent years, academic libraries have witnessed a paradigm shift in their approach towards serving patrons. Traditionally, libraries focused on collecting and organizing resources without necessarily considering the preferences and expectations of users. However, with the evolution of technology and changing user demographics, there has been a growing emphasis on adopting a patron-centric approach. This approach prioritizes the needs and experiences of library users, thereby reshaping library services to better align with their requirements. In this paper, we delve into the concept of a patron-centric approach, highlighting its importance in academic libraries and exploring strategies for its effective implementation.

Understanding the Concept of a Patron-Centric Approach

A patron-centric approach in academic libraries revolves around placing the user at the center of all service delivery efforts. It involves understanding the diverse needs, preferences, and behaviors of library patrons and tailoring services accordingly. This approach emphasizes proactive engagement with users, seeking feedback, and continuously improving services based on their input. By adopting a patron-centric mindset, libraries can create a more personalized and responsive environment that fosters greater satisfaction and loyalty among users.

Importance of User Experience and Customization in Library Services

User experience (UX) plays a crucial role in determining the overall satisfaction and engagement of library patrons. A seamless and intuitive interface, easy navigation, and access to relevant resources contribute to a positive user experience. Customization further enhances this experience by allowing patrons to personalize their interactions with library services. Whether it's tailored recommendations, personalized notifications, or customizable search filters, offering personalized features can significantly enhance user satisfaction and promote deeper engagement with library resources.

Strategies for Implementing a Patron-Centric Model in Academic Libraries

Implementing a patron-centric model requires a comprehensive understanding of user needs and effective strategies for addressing them. One strategy involves leveraging data analytics to gain insights into user behavior and preferences. By analyzing usage patterns, search queries, and borrowing history, libraries can identify trends and tailor services to meet the specific needs of different user segments. Additionally, embracing smart library applications can facilitate seamless integration of personalized features such as virtual assistants, recommendation engines, and interactive tutorials. Moreover, fostering a culture of continuous improvement through user feedback mechanisms and staff training is essential for sustaining a patron-centric approach.

Benefits of Smart Library Applications

Academic libraries are integral components of educational institutions, serving as hubs of knowledge and resources for students, faculty, and researchers. In recent years, the integration of smart library applications has transformed traditional library services, offering a plethora of benefits for both patrons and librarians. This paper explores the various advantages of smart library applications in enhancing academic library services from a patron-centric perspective.

Improved Access to Library Resources and Services

One of the primary benefits of smart library applications is the improved accessibility to library resources and services. Through these applications, patrons can remotely search for books, journals, articles, and other materials, thereby eliminating the constraints of physical proximity to the library. Additionally, features such as online catalog browsing, electronic resource access, and digital lending platforms facilitate seamless access to information anytime, anywhere, enhancing convenience and flexibility for users.

Enhanced User Engagement and Satisfaction

Smart library applications promote increased user engagement and satisfaction by offering intuitive interfaces and personalized experiences. These applications often employ advanced search algorithms, recommendation systems, and interactive features to help patrons discover relevant resources efficiently. Moreover, functionalities such as push notifications for new arrivals, event reminders, and real-time assistance contribute to a more engaging and interactive library experience, fostering patron loyalty and satisfaction.

Optimization of Library Operations and Resource Management

The adoption of smart library applications streamlines library operations and enhances resource management capabilities. Automation of routine tasks such as circulation, inventory management, and reservation systems reduces the workload on library staff, allowing them to focus on more value-added services. Furthermore, data

analytics tools integrated into these applications enable librarians to gain insights into patron preferences, usage patterns, and collection demands, facilitating informed decision-making for resource allocation and collection development.

Facilitation of Personalized Learning Experiences and Research Support

Smart library applications play a crucial role in facilitating personalized learning experiences and research support for patrons. By leveraging technologies such as machine learning and artificial intelligence, these applications can customize recommendations based on users' preferences, academic interests, and past borrowing history. Additionally, features like citation management tools, collaborative research platforms, and access to online databases empower patrons to conduct comprehensive research and academic inquiry effectively.

Challenges and Considerations

In recent years, academic libraries have been increasingly turning towards smart library applications to enhance their services and cater to the evolving needs of patrons. These applications leverage emerging technologies to provide a seamless and enriched library experience. However, the adoption and implementation of such applications are accompanied by various challenges and considerations that need to be addressed to ensure their effectiveness and sustainability.

Privacy and Data Security Concerns

One of the foremost challenges in the deployment of smart library applications revolves around privacy and data security concerns. These applications often collect and process vast amounts of user data, ranging from borrowing history to reading preferences. Safeguarding this data against unauthorized access, breaches, and misuse is crucial to maintain patron trust and comply with regulatory requirements such as GDPR and CCPA. Implementing robust encryption protocols, adopting privacy-by-design principles, and conducting regular security audits are essential steps to mitigate these risks.

Digital Divide and Accessibility Issues

Another significant consideration is the digital divide and accessibility issues that may arise with the implementation of smart library applications. While these technologies offer numerous benefits, including remote access to library resources and personalized recommendations, they also risk excluding individuals who lack access to digital devices or reliable internet connections. Addressing this disparity requires a multi-faceted approach, including providing alternative access options such as physical kiosks, ensuring compatibility with assistive technologies for patrons with disabilities, and offering training programs to bridge digital literacy gaps.

Integration with Existing Library Systems and Infrastructure

Integrating smart library applications with existing library systems and infrastructure presents a technical challenge for many institutions. Academic libraries often rely on legacy systems for tasks such as cataloging, circulation, and interlibrary loans, which may not seamlessly integrate with newer technologies. Compatibility issues, data migration complexities, and interoperability concerns must be carefully navigated to ensure smooth implementation and minimize disruption to library operations. Collaborating with vendors, leveraging application programming interfaces (APIs), and adopting standardized data formats can facilitate integration efforts and streamline workflows.

Staff Training and Support for Adopting New Technologies

Lastly, the successful adoption of smart library applications hinges on providing adequate training and support to library staff. Many librarians and support personnel may lack familiarity with the intricacies of these technologies, hindering their ability to assist patrons effectively. Investing in comprehensive training programs, offering ongoing professional development opportunities, and establishing dedicated support channels are essential steps to empower staff members and cultivate a culture of technological proficiency within the library. Moreover, soliciting feedback from frontline staff can provide

valuable insights for refining and optimizing the application interface and functionality to better meet patron needs.

Case Studies and Best Practices

Academic libraries play a crucial role in supporting the scholarly pursuits of students, faculty, and researchers. In recent years, the advent of smart library applications has revolutionized the way libraries engage with patrons and deliver services. These applications encompass a range of technologies, including mobile apps, self-checkout systems, RFID tagging, data analytics, and virtual assistants, among others. By leveraging these tools, academic libraries can streamline operations, personalize services, and improve access to resources. However, successful implementation requires careful planning, collaboration, and evaluation. This paper examines case studies and best practices for integrating smart library applications to enhance academic library services from a patron-centric perspective.

Exemplary Case Studies

Several academic libraries have demonstrated innovative approaches to implementing smart library applications. For instance, the University of California, Berkeley's Moffitt Library implemented a mobile app that allows patrons to access digital resources, reserve study rooms, and receive personalized recommendations based on their interests and preferences. Similarly, the University of Toronto's Robarts Library implemented RFID technology for self-checkout and inventory management, reducing wait times and improving staff efficiency. These case studies highlight the diverse applications of smart technologies in academic libraries and their potential to enhance user experiences.

Lessons Learned and Best Practices

While the benefits of smart library applications are evident, implementation challenges are inevitable. Lessons learned from case studies emphasize the importance of stakeholder engagement, user feedback, and staff training. Successful libraries prioritize user-centered design, ensuring that applications are intuitive and accessible to patrons of all backgrounds. Additionally, effective communication and collaboration among library staff, IT professionals, and vendors are essential for seamless integration and troubleshooting. Best practices also include conducting pilot tests, collecting data on usage patterns, and soliciting feedback to iteratively improve the user experience.

Strategies for Measurement and Evaluation

Measuring the impact and effectiveness of smart library applications is essential for assessing their value and informing future decision-making. Academic libraries employ various metrics, such as usage statistics, user satisfaction surveys, and qualitative assessments, to evaluate the performance of smart technologies. Additionally, data analytics tools enable libraries to track trends, identify patterns, and anticipate patron needs. By combining quantitative and qualitative data, libraries can gain insights into user behaviors, preferences, and pain points, allowing for continuous improvement and innovation.

Future Directions and Recommendations

The digitization of libraries and the advent of smart technologies have revolutionized how academic libraries deliver services to their patrons. Smart library applications, powered by artificial intelligence, machine learning, and IoT (Internet of Things), offer unprecedented opportunities to enhance user experience, streamline operations, and optimize resource utilization. This paper aims to explore the future directions and recommendations for leveraging smart library applications to provide patron-centric services.

Emerging Trends in Smart Library Technologies

Personalized Recommendation Systems: Smart library applications can utilize machine learning algorithms to analyze user preferences, borrowing history, and search patterns to provide personalized recommendations for resources, thereby enhancing the discovery experience.

IoT Integration: Integration of IoT devices such as RFID tags, sensors, and beacons can enable real-time tracking of library assets, optimize shelf management, and facilitate self-checkout processes, thereby improving operational efficiency.

Virtual Reality (VR) and Augmented Reality (AR): VR and AR technologies can create immersive learning experiences within the library, allowing patrons to explore virtual collections, participate in interactive workshops, and engage with digital content in innovative ways.

Voice-Activated Interfaces: Voice-activated interfaces powered by natural language processing (NLP) can facilitate hands-free interactions with library services, including searching the catalog, accessing digital resources, and receiving assistance from virtual assistants.

Opportunities for Further Research and Innovation

User Experience Optimization: Research focused on understanding user behavior, preferences, and information-seeking habits can inform the design of smart library applications to better meet the needs of diverse patron groups.

Ethical Considerations: Further exploration of ethical considerations surrounding data privacy, algorithmic bias, and equitable access is essential to ensure responsible implementation of smart library technologies.

Integration with Learning Management Systems (LMS): Investigating seamless integration between smart library applications and existing LMS platforms can enhance the accessibility and discoverability of library resources within academic workflows.

Long-term Impact Assessment: Longitudinal studies examining the long-term impact of smart library applications on user engagement, academic performance, and information literacy skills can provide valuable insights for continuous improvement.

Recommendations for Academic Libraries

Prioritize User-Centric Design: Academic libraries should prioritize user-centric design principles to ensure that smart library applications align with the needs and preferences of their patrons.

Invest in Staff Training and Development: Adequate training and professional development programs should be provided to library staff to familiarize them with the functionalities of smart library applications and empower them to assist patrons effectively.

Foster Collaboration and Partnerships: Collaboration with technology vendors, academic departments, and student organizations can foster innovation and support the co-creation of smart library solutions tailored to the unique requirements of the institution.

Promote Data Literacy and Privacy Awareness: Academic libraries should promote data literacy skills among patrons and raise awareness about data privacy concerns associated with smart library technologies through educational initiatives and transparent communication.

Conclusion

In conclusion, this research paper has highlighted the significance of enhancing academic library services through the implementation of smart library applications, particularly through a patron-centric approach. Our findings underscore the importance of meeting the evolving needs and preferences of library users in an increasingly digital age.

Through the analysis of current trends and case studies, it is evident that smart library applications offer numerous benefits, including improved accessibility, personalized recommendations, and enhanced user engagement. These applications not only streamline library processes but also foster a more interactive and dynamic user experience.

Looking ahead, the implications for the future of academic library services are substantial. Embracing smart library applications is crucial for staying relevant and competitive in the digital landscape. Institutions must prioritize investments in technology and infrastructure to support these advancements and ensure seamless integration into existing library systems.

In light of these insights, there is a clear call to action for academic libraries to embrace a patron-centric approach through the adoption of smart library applications. By prioritizing the needs and preferences of library users, institutions can cultivate a more inclusive and responsive library environment that empowers patrons and fosters lifelong learning.

In summary, the future of academic library services lies in leveraging smart technologies to create innovative and user-centered solutions. Embracing this approach is essential for advancing the mission of academic libraries and meeting the diverse needs of 21st-century learners.

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ETHICS IN TEACHING PROFESSION

Malakshmi
Assistant Professor in Education
Mandavya College of Education
Mandya, Karnataka, India
Email: malamahalakshmi884@gmail.com

ABSTRACT

Ethics is the greatest concerning issues now a day. The society is becoming dishonored and youth groups are doing unethical activities haphazardly. Family plays asignificant role to make the students ethical, but teacher has a countless role too regarding this issue. A teacher can increase the morality of a student by inspiring the ethical practices. This paper tried to emphasis on what is ethics and what is the relation of ethics with the teaching profession and lastly tried to recommend a cryptogram of ethics for teachers.

Keywords: Ethics, code of ethics, teacher, teaching profession

Introduction

At the present time, it is clear that one of the concepts mentioned in numerous disciplines from education, health, justice to management sciences is ethics. Ethics is a discipline that investigates the fundamentals and underlying values of moral actions, determines the right and wrong limitations of actions. Ethics based on what makes human actions morally valuable or worthless. Ethics focuses on attitudes and behaviors such as evaluating, choosing, making preferred actions related to human rights and farm duties towards other people. When these definitions are examined, the concept of ethics can be defined as a field that examines the moral rightness of an individual's behavior and the values and norms underlying these behaviors. From this point of view, ethics is the entire of values and moral principles that decide what is right and what is wrong and set worldwide criteria in this direction. These criteria are also imperative for professions. Professional ethics, defined as the behaviors that an expert must obey, is also significant for the teaching profession. All teachers require developing their understanding of ethics to maintain the professional standards in teaching and research and guide students' ethical behavior

What is Ethics

Ethics, also identified as moral philosophy, is a limb of philosophy that involves systematizing, defensive, and recommending concepts of right and wrong conduct. The word comes from the Greek word **ethos**, which means "**character**". Ethics is a balance to Aesthetics in the philosophy field of Axiology. In philosophy, ethics studies the ethical behavior in humans, and how one should be active. **Paul and Elder** defines ethics as *"a set of concepts and principles that direct us in determining what behavior helps or troubles attentive creatures".* The **Cambridge Dictionary of Philosophy** states that the word ethics is *"usually used interchangeably with 'morality' and sometimes it is used more barely to mean the moral principles of a particular tradition, a group, or human being."*

What is Professional Ethics?

Proficient people and those working in acknowledged professions do exercises specialist knowledge and skill. *How the utilize of this knowledge should be governed when providing a service to the community can be considered a ethical issue and is termed professional ethics.* Professionals are able of making judgments, applying their skills and reaching knowledgeable decisions in situations that the general public cannot, because they have not established the relevant training. **Professional ethics is a set of principles adopted by a professional community.** Professional ethics are synchronized by standards, which are often referred to as **codes of ethics**. The code of ethics is very significant because it gives us limitations that we have to stay within in our professional

careers. The one difficulty with the code of ethics is that we can't for all time have the answers in black and white. Sometimes there are grey areas where the answers aren't so easy. Professional ethics are too known as *Ethical Business Practices.*

Components of Professional Ethics

A number of professional organizations describe their ethical approach as a number of separate components. Typically these include:

- Honesty
- Integrity
- Transparency
- Accountability
- Confidentiality
- Objectivity
- Respectfulness, and
- Obedience to the law

A professional ethics path is not about distribute virtue to raise morals among immoral and unprincipled students, it also the capability to concern the respective citizens to first recognize and then sensibly tackle moral issues.

Significance of the Ethics in Teaching

The *code of ethics* for teachers is intended to protect the rights of the students. It is significant that teachers understand that when they acquire a teaching position they are agreeing to follow the code of ethics.

Teachers are predictable to be fair to all their students and not to take benefit of their position in any way. For instance, teacher can't accept luxurious gifts from students because it might appear to prejudice.

Teacher can't thrust their personal beliefs on students because they are a "imprisoned spectators". Teacher requires having a professional relationship with all students and not letting it get too informal and familiar. It seems that, there is quite a bit of mistreatment that is happening in the school. Teacher necessitates protecting his /her students' safety and not believing that this is someone else's job. The most important thing is not to mistreatment the power that the position, over the students, might give the teacher.

Caetano and Silva (2009) his study revealed that ethical scope are very significant in our education system and are in several legislative documents, both with observe to the student and teacher and as well as significant for professional performance. The ethical issues are connected with social, spiritual, moral and civic values. And it is the teacher who can give a right way to the student to raise their ethics.

John Clark (2004) in his paper discussed that for teachers ethics is more than code of ethics which is the set of values and rules which serve in disciplinary processes. Teachers as a professionals are accountable in one of the most ethically demanding jobs, to offer education in young people. It is teachers' duty to replicate on their activities to make certain the best ethical example to those who are educating morally.

A teacher has to play a variety of roles both inside and outside of classroom. Teacher can develop the ethics among the student by setting the examples of their ethical behavior. Ethics and morals are frequently associated with religion, but schools can also offer important lessons in ethical thinking and action.

"There's an enormous fear out there that somehow teaching ethics in school will leak into students a demanding religious viewpoint," says **Dr. Bruce Weinstein**, aka The Ethics Guy. "But ethics must be trained and are being taught in school. It's not possible not to teach ethics in a school."

Teachers are necessary to preaching these values and ethics towards students. According to **Weinstein, there are five essential principles of ethics** that are general to all faiths:

- Do no hurt
- Make things improved
- Respect others
- Be fair
- Be affectionate

These principles are defined in a different way in diverse parts of the world, but they are crosscultural and predictable among all groups of people. And **Weinstein** says they should expand beyond the walls of the sanctuary and should be taught and predictable in homes and classrooms as well.

Ethics and Teaching Profession

Teachers work wrap many things and ethics is one of them. **Burger** (1999) discussed in his speech that education has three goals: 1. Get Value, 2. Get Knowledge and 3. Acquire Skills and it is the responsibility of a teacher to work on the principles and morals of our children. Students can be taught about values by the day to day living examples of teachers both in campus and personal lives.

John (2004) classified two pertinent aspects of teaching: 1. Ethics in teaching and 2. Deal with academic commitment. An educator should know about ethics and the ethics in teaching:

1. Code of ethics and ethical norms
2. Understanding teacher-student relationship
3. Tension in teacher-student relationship
4. Educational issues

One valuable source of information about ethical teaching is a matter of New Directions for Teaching and Learning. Understanding and Honoring the particular Relationship between Teachers and Students, in which quite a lot of authors provided theoretical and practical guiding principle for honing ethical college teaching skills. A number of the authors' recommendations are listed below.

Four Norms to preside over Teaching

a. **Honesty:** Integrity and using open communication at home and school.
b. **Promise-Keeping:** Promise-keeping requires the teacher to fulfill the "promises" made at the commencement of the semester. Syllabi, assignments, grading principles, and class and office hour schedules engage promises made to students.
c. **Respect for Persons:** Teachers have to give confidence mutual respect among students. In addition, instructors ought to show admiration and common courtesy for students both during interpersonal communications and in responding punctually to students' need for guidance and feedback.
d. **Fairness:** Recognizing the intrinsic subjectivity involved in grading, instructors must to ensure that their grading practices are as purpose as possible by creating and adhering to unmistakable criteria.

Principles of Ethics in Teaching of Colleges and Universities

1. Content Competence - A university teacher maintains an elevated level of subject matter knowledge and ensures that course content is present, precise, delegate, and suitable to the position of the course within the student's program of study.

2. Pedagogical Competence - A pedagogically competent teacher communicates the objectives of the course to students, is conscious of option instructional methods or strategies, and selects methods of instruction that are effectual in helping students to achieve the course objectives.

3. Dealing with Sensitive Topics - Topics those students are likely to find responsive or uncomfortable are dealt with in an open, honest, and optimistic way.

4. Student Development - The superseding responsibility of the teacher is to contribute to the intellect development of the student, at least in the background of the teacher's own

area of expertise, and to avoid actions such as exploitation and injustice that detract from student development.

5. Twin Relationships with Students - To avoid divergence of interest, a teacher does not enter into dual-role relationships with students that are likely to detract from student development or lead to real or perceived preference on the part of the teacher.

6. Confidentiality - Student grades, attendance records, and private communications are treated as confidential materials and are released only with student permission, for lawful academic purposes, or if there are sensible grounds for believing that releasing such information will be helpful to the student or will prevent damage to others.

7. Respect for Colleagues - A university teacher compliments the self-esteem of her or his colleagues and works attentively with colleagues in the interest of nurturing student development.

8. Valid Assessment of Students - Given the significance of assessment of student presentation in university teaching and in students' lives and careers, instructors are responsible for taking sufficient steps to ensure that evaluation of students is valid, open, fair, and matching with course objectives.

9. Respect for Institution - In the interest of student development, a university teacher is conscious of and respects the enlightening goals, policies, and standards of the institution in which he or she teaches.

Suggested Code of Ethics for Teachers

As a Professional Educator:
- Struggle to make foremost liability the education and welfare of all students in care, and respect the individuality and dignity of each student.
- Endeavor to build relationships with students' families, as suitable, that contribute to students' welfare and education.
- Strive to encourage mutual respect and trust in relationships with colleagues, assist newcomers to the profession, and conduct yourself in a way which enhances the status of the profession.
- Do best to accomplish the responsibilities to employer, community and society.

Responsibility toward Students
- Offer learning uniformly to each student
- Be familiar with students' potentiality
- Give confidence students' in learning, health and protection
- To be pale to each student, justify each student evenly
- Determine problem regarding discipline, law and policy.

Responsibilities toward Parents, Families and Community
- Establish relationships with parents based on good manners, mutual trust and open communication.
- Respect the privacy of a family.
- Share the information with parents about the interest of the student.
- Admiration the family backgrounds of each student.
- Play an energetic role in community relations.
- Be honest to the society.
- Offer the standard of professional service.
- Build up the values in students of a democratic society.

Responsibilities towards Professional Colleagues
- Put up an ambiance of trust, shared respect and openness with the respective colleagues.
- Act consequently to the educational and wider community which enhances the status of the profession.

- Do not disclose confidential information about colleagues unless necessary by law and policy.
- Assist, support and give confidence newcomers to the profession.
- Do not offer false statement about colleagues.
- Do not interfere with colleagues' personal liberty which can violate individual professional honesty.

Responsibilities to Employers

- Be honest when making statements about education and competencies.
- Follow the contractual commitments.
- Positively encourage the improvement of institutional policies.
- Encourage cooperation among all agencies and professionals working in the top interests of students and families.
- Execute those laws and policies that do not conflict with code of organizational ethics.
- Activate all the committee accounts honestly to his/her charge.
- Preserve sound mental health, energy social prudence necessary to perform his/her task.

Conclusion

Education is considered as a precious asset of every human. It is a key to make an all-round development among students and it is the primary duty of every teacher to communicate quality teaching in all levels of education to bring most favorable development among students. Students are also requiring to learn about ethics, practice it to grow with a exclusive personality of high moral values and ethics. To become achievement, in this regard, a teacher has to gain knowledge about the professional ethics of teaching first. Teachers' should show equal level of self-respect to his profession, institution, students, colleagues as well as parents and they should take the legal responsibility of teaching profession seriously and perform their duty successfully. Therefore, in education, implementation of teaching ethics to students as well as professional ethics of teachers is very much necessary.

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THE EFFECT OF YOGA PRACTICE ON CARDIOVASCULAR ENDURANCE IN THE AGE GROUP OF 17 TO 19 PRE-UNIVERSITY COLLEGE STUDENTS

Maheshwari L. Udagatti
Research Scholar,
Karnatak State Akkamahadevi Womens University, Vijayapur

Prof. D. M.Jyothi
Research Guide,
Karnatak State Akkamahadevi, Womens University, Vijayapur

ABSTRACT

*Aim of the present study was to find out **"The Effect of Yoga Practice on Cardiovascular Endurance in the Age Group of 17 to 19 Pre-University College Students"***

Expecting people must be Excited, Scared, Happy, Overwhelmed. Yoga provides holistic health benefits for to-be-universe. Yogic asanas help keeps the body supple. Yoga helps reduce the effect of common symptoms such as morning sickness, painful leg cramps, swollen ankles constipation and also common of brain ham rage.

The subjects of the present study were selected from the Karnataka Public School Navanagar Tq|| Hubballi Dis||Dharwad, State|| Karnataka. The age of the subjects lies between 17 to 19 years.

***Keywords:** Asanas, Pranayama, Meditation, Health, Cardiovascular Endurance, Government, High School*

INTRODUCTION:

Yoga is universally benefiting all people of all ages. The study of yoga is fascinating to those with a philosophical mind and is defined as the silencing of the mind's activities which lead to complete realization of the intrinsic nature of the Supreme Being. It is a practical holistic philosophy designed to bring about profound state as well is an integral subject, which takes in to consideration man as a whole (Iyengar 1966). The aim of yoga is to devise ways and means of helping the better emotional and intellectual concentration. Asana is the main yogic tool for balancing the physical body. It consists of various static postures and physical movements performed to relies tension, improve flexibility, maximize the flow of energy and remove fixation (Sivananda Swamy 1934). The objective of asana is to create a free flow of energy in order to help to direct our attention within. In this study an attempt is made to find out the effects of Asana, Pranayama and Meditation practice on cardiovascular endurance.

YOGA:

The yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on mind and body. It is an art and science of healthy living. The word **'YOGA'** is derived from the Sanskrit root **'YUJ'**, meaning **'to yoke'** or **'to unite'**. One who experiences is said to be in yoga and is termed as a yogi, having attained to a state of freedom referred to as moksha. Thuse the aim of yoga is Self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (moksha) or 'freedom' (Kaivalya).

DEFINITION OF YOGA:

Yoga according to Scriptures – Various scriptures have given different definitions of yoga. Few of them are listed below:

Patanjali yoga sutra defines Yoga in verse 2 of the first chapter. According to it, Yoga is – "Yogah Chitta Vritti Nirodhah", which means that Yoga is control of the fluctuations of Chitta or it is the control of the mind.

The next verse, deals with the result of achieving such a control. It says – "Tada dhristuh svarupe avasthanam", which menace that – Then the Seer is established in the Self or the causal state. In other words, the practitioner gets established in the inherent natural state of the self.

The first aspect is pertaining to control of the mind and the next aspect is regarding the calmness and awareness of the mind, which is the state reached through the first aspect. The second aspect is more important and is the goal of Yoga while the first aspect is the means.

In the **Bhagavat geeta** (Chapter 2, Verse 50) it is said that "Yogah Karmasu Kaushalam", which means that yoga is dexterity also means that the action. The perfection in action is a result of calmness and awareness of mind. Dexterity also means that the action is done with maximum efficiency. This perfection is also result of performing actions in a detached way, without overly being anxious about the outcome of the action.

YOGA IMPORTENCE FOR STUDENTS:
1. Yoga attainment of perfect equilibrium and harmony.
2. Yoga promotes self-healing.
3. Yoga removes negative blocks from the mid and toxins from the body.
4. Yoga enhances personal power.
5. Yoga increases self – awareness.
6. Yoga helps in attention, focus and concentration, especially important for children.
7. Yoga reduces stress and tension in the physical body by activating the Parasympathetic Nervous System.
8. Yoga overall Academic Improvement.

OVERALL BENEFITS OF YOGA:
1. Better posture.
2. Improved bone health.
3. Increased blood flow.
4. Improved heart health.
5. Lowered blood pressure.
6. Improved balance.
7. Relaxation and sleeping aid.
8. Improved lung health.
9. Reduced digestive problems.

OBJECTIVES OF YOGA FOR STUDENTS:

Yoga education helps in self-discipline and self-control, leading to immense amount of awareness, concentration and higher level of consciousness. Briefly the objectives of Yoga education are,
1. Enable the student to have good health.
2. To practice mental hygiene.
3. To possess emotional stability.
4. To integrate moral values.
5. To attine higher level of consciousness.

HEALTH:

It is the ability of a biological system to acquire, convert, allocate, distribute and utilize energy with maximum efficiency. The World Health Organization (WHO) defined human health in a broader sense in its 1948 constitutions as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

HEALTH RELATED FITNESS:

The maintenance of health and fitness helps a person to be in the general state of health and well-being. It provides ability to perform physical actions without being tired or restless. However, the maintenance of health and fitness requires regular physical exercise with balanced diet. It is very necessary for all to maintain their health and fitness in order to be fit, healthy, fearless of diseases, and get so many other benefits. Now-a-days, teachers generally assign their students to write some paragraphs or full essay on any topic to enhance their English writing skill and knowledge as well as spread awareness. Following are some paragraphs, short essays and long essays on health and fitness to help students in completing their task. All the health and fitness essay are written very simply. So, you can select any essay according to your need and requirement.

IMPORTANCE OF HEALTH AND FITNESS:

Health and fitness are very important for people who want to live a healthy life very happily and peacefully. A healthy and fit person is only capable to live life to its fullest extent. We can say a person healthy and fit if he/she is physically and mentally fit. Physically and mentally fit people become less prone to the medical conditions. Health and fitness of any person helps in:

- Decreases the risk of diseases (high blood pressure, diabetes, coronary heart diseases, colon cancer, osteoporosis, obesity, stroke, breast cancer, etc).
- Make them feel better both, physically and mentally.
- Improves their confidence level.
- Heals injuries soon.
- Helps to live longer by adding years to the life.
- Reduces stress and improves quality of life.
- Reduces anxiety level, stress, and feelings of depression.

The components of Health-Related fitness are a basis from which to measure our general wellbeing. It is the aim of exercise to improve our capability in each of these areas. Different sports will be more demanding in some and less demanding in others, but women athletes usually strive to achieve a reasonable level of health fitness in each area.

There are six health related components of fitness.

1. Speed
2. Strength
3. Endurance
4. Flexibility
5. Agility
6. Body Composition

fig (1) body components

ENDURANCE:

Endurance can be defined as-

"The ability to withstand stress over prolonged periods of time. An endurance sport is therefore any sport in which there is a prolonged physical stress."

CARDIOVASCULAR ENDURANCE:

Measurement of Cardiovascular Fitness: Cardiovascular fitness is the ability of the heart and lungs to supply oxygen, rich blood to the working muscle tissues and the ability of the muscles to use oxygen to produce energy for movements. This type of fitness is required to sustain physical activity and is essential for performing aerobic activities.

Harvard Step Test: This test is also known as Aerobic Fitness test. It was developed by Boruah and others in 1943. It is used to measure the cardiovascular fitness or aerobic fitness by checking the recovery rate.

Equipment Required Bench 20 inches high, for men and 16 inches for women, stopwatch and metronome.

METHODOLOGY:

The selected subjects were divided in to four equal groups of ten subjects each. Group I underwent asana, Group II underwent pranayama practice, Group III underwent meditation practice for five days per week for eight weeks of training period and Group IV acted as control that did not participate in any special training program apart from their regular activities. Subjects were required to attend yoga classes per week five days for a total 8 weeks. Each yoga session consisted of 10 minutes of pranayama (breath control exercises), 15 minutes of dynamic warm –up, 50 minutes of asanas and 10 minutes of relaxation in Shavasana. The subjects were evaluated before and after the training program. We measured through the influence of Yoga practice on resting pulse rate was analysed separately and presented below. The analysis of covariance on resting pulse rate of the pre-test and post-test scores of experimental groups I, II, III control group have been analysed and presented in Table (A).

TABLE (A): Analysis of covariance of pre-test and post – test on resting pulse rate for cardiovascular endurance of three experimental groups and control group (scores in beats/minutes)

Test	Exp. Group I	Exp. Group II	Exp. Group III	Control Group	SV	SS	Df	MS	FV
Pre-Test									
Mean	75.30	75.10	75.40	75.20	B	0.50	3	0.17	0.11
Sd	1.19	1.14	1.11	1.33	W	57.00	36	1.58	
Post – Test									
Mean	71.00	72.00	73.10	74.80	B	79.48	3	26.49	18.89
Sd	1.00	0.89	1.04	1.47	W	50.50	36	1.40	
Adjusted Post-Test									
Mean	70.96	72.13	72.97	74.84	B	80.27	3	26.76	111.78
					W	8.38	35	0.24	

*Significant at .05 level of confidence

(The table values required for significance at .05 level of confidence for 3 and 36 and 3 and 35 are 4.12 and 4.12 respectively).

Table (A) shows the analysed data on cardiovascular endurance. The pre-test done by research scholar through resting pulse rate were 75.30 for experimental Group I, 75.10 for experimental Group II, 75.40 for experimental Group III and 75.20 for control Group. The obtained "E" ratio of 0.11 was lesser than the table F- ratio 4.12. Hence, the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 3 and 36. The post-test means of muscular strength were 71.00 for experimental Group I, 72.00 for experimental Group II, 73.10 for experimental Group III and 74.80 for control Group. The

obtained "F" ratio of 18.89 was higher than the table F- ratio 4.12 hence, the post-test was significant at 0.05 level of confidence for the degrees of freedom 3 and 36.

The adjusted post-test means of resting pulse rate were 70.96 for experimental Group-I, 72.13 for experimental Group II, 72.97 for experimental Group III and 74.84 for control Group. The obtained "F" ratio of 111.78 was higher than the ratio 4.12. Hence the adjusted post-test was significant at 0.05 level of confidence for the degrees of freedom 3 and 35. Since, four groups were compared, whenever the obtained 'F' ratio for adjusted post-test was found to be significant, the Scheffe's test to find out the paired mean differences and it was presented in table (B).

FIGURE (A)
Analysis of covariance of pre-test and post – test on resting pulse rate for cardiovascular endurance of three experimental groups and control group (scores in beats/minutes)
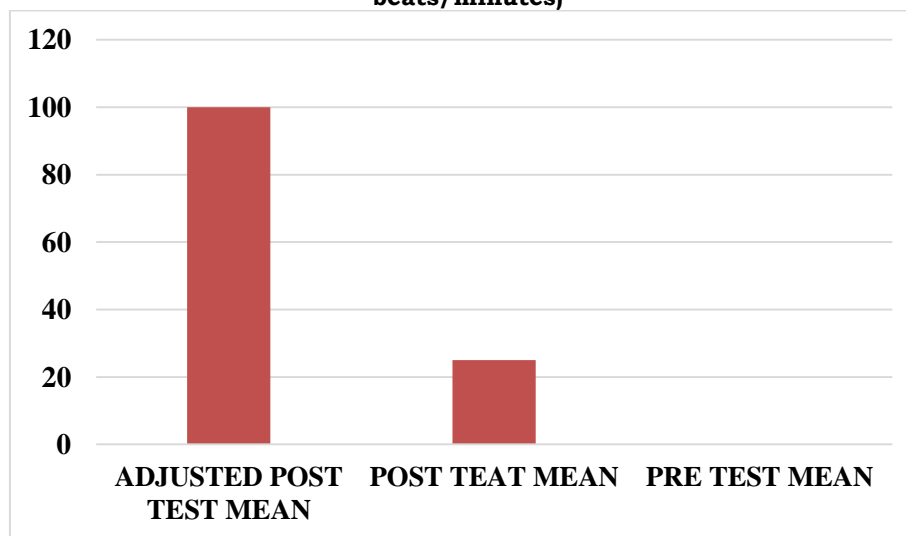
Above figure shows that the difference between pre-test and post-test on resting pulse rate for cardiovascular endurance of three experimental and control groups.

The below Table (B) shows that the Scheff's post hock tests mean differences on resting pulse rate for cardiovascular endurance among experimental group and control groups.

TABLE (B): Scheffe's post hock tests mean differences on resting pulse rate for cardiovascular endurance among four groups (scores in beats/minutes)

Exp. Group I	Exp. Group II	Exp. Group III	Control Group	Mean Differences	Confidence Interval Value
70.96	72.13	-	-	1.17*	0.63
70.96	-	72.97	-	2.01*	0.63
70.96	-	-	74.84	3.89*	0.63
-	72.13	72.97	-	0.84*	0.63
-	72.13	-	74.84	2.71*	0.63
-	-	72.97	74.84	1.87*	0.63

*Significant at .05 level of confidence

Table (B) shows the Scheffe's post-hock test results. The ordered adjusted final mean deference for resting pulse rate of experimental Groups I,II,III and control Group were tested for significant at 0.05 level of confidence against confidential interval value the mean differences between experimental Group I and experimental Group II, experimental Group I

and experimental Group III, experimental Group I and control Group, experimental Group II and experimental Group III, experimental Group II and control Group, experimental Group III and , control Group were 1.17, 2.01, 3.89, 0.84,2.71 and 1.87 respectively and it was seen to be greater than the confidential interval value of 0.63. Hence, the above comparison was significant.

DISCUSSION ON FINDINGS:

Physiology is a science of functioning of all the organs and systems of an organism. For the physiological system of the body to be fit, they must function well enough to support to specific activity that the individual is performing more over different activities Mack different demands upon the organism with respect to circulatory, respiratory, metabolic and neurologic process which are specific to the activity. In physiology, one learns how the organs, systems, tissues, cells and molecules within cells work and how their functions are put together to maintain internal environment.

The pressure exerted by the heart and arteries to push blood around the body. The magnitude of blood pressure is determined by the amount of the blood being pumped out of the heart per beat (the stroke volume) and the resistance encountered as it passes through the blood vessels (peripheral resistance). Blood pressure is usually expressed as to measurements: systolic blood pressure, indicating the pressure when the heart is actually pumping; and diastolic blood pressure, the pressure when the heart is filling up with blood. Systolic pressure is always the higher and is expressed first. The pressures are measured in millimetres of mercury. Thus, a blood pressure of 130/80 or 130 over 80, refers to a systolic blood pressure that will support a column of mercury 130mm high, and the diastolic pressure, which will support for column 80mm high. Systolic pressure in children is about 100, and in young adults, the value is about 120. It tends to rise with age arteries thicken. A systolic pressure of 180 is not uncommon and it may be as high as 280.

The value varies according to a person's position. It tends to drop when you stand up after lying down; this is called postural hypertensive drop. A typical value for diastolic pressure is 80mm of mercury. Although it is difficult to define precisely what is normal blood pressure, there is general agreement that a desirable blood pressure is less than 140/90 (Shaver 1982).

The results of the present study showed that all the three Groups have improved the blood pressure on the sample population. The asana practice greater influence than the other two. The pranayama practice is the next best and the meditation practice has the least influence.

CONCLUSIONS:

The asana practice has greater influence and Pranayama and Meditation also influence on cardiovascular endurance.

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ROLE OF METACOGNITIVE INSTRUCTIONAL PROGRAMME BASED ON COLLABORATIVE LEARNING IN PROBLEM-SOLVING AND ACADEMIC ACHIEVEMENT

Mangat Ram
Research Scholar, Department of Education,
Panjab University, Chandigarh

Dr. Vijay Phogat
Associate Professor, Department of Education,
Govt. College of Education, Sec 20 D, Chandigarh

ABSTRACT

Context: *Collaborative and problem-solving are important approaches in the teaching-learning process. The metacognitive instructional programme enables the students to become innovative, creative, and motivated learners, and it develops scientific attitude, problem-solving ability, and academic achievement among the students.* ***Aim:*** *To study the role of the metacognitive instructional programme based on collaborative learning in problem-solving and academic achievement.* ***Settings and Design****: Meta-analysis was used in this study. 42 relevant articles were identified as suitable for this research work, and 12 were selected for the analysis of the results.* ***Materials and Methods:*** *The research journals, theses, and articles were studied to analyze the results.* ***Results:*** *It was found that the metacognitive instructional programme based on collaborative learning is effective in problem-solving and academic achievement, and it helped to inculcate metacognition, problem-solving ability, and academic achievement.* ***Conclusions:*** *Metacognitive instructional programme is useful in problem-solving and academic achievement through collaborative learning. It was found that there was limited content, so further studies can be conducted in this area.*
Keywords: *Metacognitive Instructional Programme, Collaborative Learning, Problem-Based Learning, Socratic Method, Vygotsky's Constructive Approach*

Introduction

John Flavell in 1979, first time proposed the term metacognition consisting of metacognitive knowledge and metacognitive experiences or regulation; metacognitive knowledge contains knowledge of person variables, task variables, and strategy variables. Both cognitive and metacognitive practices are an important part of the development of metacognition among learners, using more metacognitive instruction involves high success in cognitive tasks, both metacognitive and cognitive strategies may or may not overlap during problem-solving phase, and depend on the purpose of the strategy used (Livingstone, 2003). Metacognition is thinking about thinking, and it is developed in a child at the age of three years and appears massive improvement after attaining the age of six years (Lai, 2011). Metacognition has been an emerging field for research for the last few years, it has many diverse functions similar to language. Cognition can be automatic because it involves a general thinking process in the given circumstances and a subject may respond automatically to a regular problem without using high-order thinking, metacognition may or may not be automatic if a problem is new or complex. If it needs a specified solution then it is not possible to apply general thinking. It needs higher-order thinking, so in this condition, metacognition operates and provides the solution to that problem. There is a need to develop and implement metacognition in the learning settings by a trained instructor by using the Socratic method or Vygotsky's constructive approach. It is useful for all learners despite age or gender, it can be generally seen in Bloom's taxonomy also under the component being used as evaluation, skill in metacognition use depends on the instructor's skill in

metacognition development and transfer in the learners, the habit of using metacognition and practice-interval of students, and making the thinking audible to self (Martinez, 2006). Collaborative learning is an educational approach that involves a group of learners involved in a common goal for problem-solving, task-completion and tends to produce learning. The basic elements of collaborative learning are positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face promotive interaction, and group processing (Laal & Laal, 2012). Problem-based approaches originate through experience-based education, students can learn both content and thinking strategies by it. The student learns from a complex problem that does not have a single correct answer through collaborative groups using self-directed learning to identify what they need to learn to solve the problem they face. The teacher plays the role of facilitator in the learning process and this learning develops flexible knowledge, effective problem-solving skills, self-directed learning skills, effective collaboration skills, and intrinsic motivation among students (Cindy & Hmelo-Silver, 2004).

Rationale

Metacognition is a bridge in memory, decision-making, and motivation, and also an important method for problem-solving among learners (Nelson & Narens, 1994). Metacognitive knowledge has an important role in facilitating own learning (Pintrich, 2002), and metacognitive skills influence academic achievement (Bahri, et.al., 2019; & Dike et.al. 2017). The learners can solve problems through group discussions and thinking about their own thinking easily (Tachie, 2018). Technology-supported collaborative learning has a positive effect on students' achievement and engagement (Unal & Cakir, 2021). Metacognitive awareness and self-learning can be enhanced through collaborative learning that enables students to reflect and ponder their lessons and improvement in academic performance (Pudiquet, et.al., 2019).

Objectives

1. To study the role of the metacognitive instructional programme based on collaborative learning in problem-solving and academic achievement.

Research Question

1. What is the role of the metacognitive instructional programme based on collaborative learning in problem-solving and academic achievement?

Research Method

In this study, the meta-analysis was done after reviewing the related articles available online and offline sources. 42 relevant articles were identified as suitable for this research work, and 12 were selected as sample for the analysis of the results.

Metacognitive Instructional Programme based on Collaborative and Problem-Based Learning in Improving Academic Achievement

Alzahrani (2017) conducted a study on a sample of 30 secondary school students and their teachers. It was found that metacognitive instructions through cooperative learning improve social interaction and learning.

Backer et.al. (2021) conducted a research on a sample of 97 University students. A quasi-experimental pre-test and post-test design was adopted, involving an experimental (n = 51) and two control groups; CG1 (n = 24) and CG2 (n = 22). It was found that peer learning had a positive effect on metacognitive regulation.

Bay et.al. (2012) conducted a study on a sample of 137 teacher candidates. It was found that the social constructivist approach had a more positive effect in the experimental group than the control group.

Begum (2019) conducted a research on a sample of 50 students of 9th class. It was found that collaborative learning improved metacognition, critical thinking skills of Biology students.

Ebomoy (2020) conducted a study on a sample of 65 undergraduate microbiology students. It was found that metacognition and peer learning strategies were positive predictors in problem-solving performance in Microbiology.

Galeano et.al. (2020) reviewed 19 documents out of 722 seven widely recognized databases in the educational and scientific community world-wide. It was found that indicators of learning quality used were- potential, processes, teacher expectation indicator, student's growth indicator, academic performance, and level of learning achievement.

Guner and Erbay (2020) conducted a research on a sample of 37 middle school students in the eighth grade. It was found that students who were involved in the use of metacognitive strategies had high metacognitive skills and solved the Mathematical problem correctly, but the students who were not using metacognitive strategies had poor metacognitive skills and had difficulties in problem-solving in Mathematics.

Muntazhimah et.al. (2019) studied the application of metacognitive strategy in a collaborative learning setting through preliminary and literature studies. It was found that metacognitive strategies could be applied in collaborative learning settings to enhance student's mathematics abilities.

Ouyang, et.al. (2021) conducted a study on three groups of higher education students, 98, 83, and 82 students respectively. It was found that Scaffoldings improve the collaborative problem-solving processes of students.

Smith (2023) conducted a study on a sample of 12 students in three groups and three sessions. It was found that collaborative metacognitive talk was more useful in problem-solving in teacher-student collaboration than student-student collaborative metacognitive talks.

Vijayakumari and D'Souza (2013) conducted a study on a sample of 54 students of class 9th. It was found that the metacognitive co-operative Learning Approach enhanced Mathematics achievement.

Wismath and Orr (2015) conducted a research on a sample of 133 university students. It was found that collaborative learning through metacognitive strategies was helpful in problem-solving.

Findings

After reviewing the related literature reviews the following results were obtained and the research question 1. What is the role of the metacognitive instructional programme based on collaborative learning in problem-solving and academic achievement**?** Was resolved as follows

Sr No.	Authors	Sample Description	Metacognitive Strategies/ Intervention	Findings
1	Alzahrani (2017)	30 secondary school students and teachers	Metacognitive instructions through cooperative learning	Metacognitive instructions through cooperative learning improves social interaction and learning
2	Backer et.al. (2014)	97 University students sample.	Promoting university students' metacognitive regulation through peer learning	Peer learning improved metacognitive regulation
3	Bay et.al. (2012)	Total 137 teacher candidates (89 teacher candidates experimental group	Social constructivist approach on learners' problem-solving and	Experimental group teacher candidates' had higher problem-solving skills and

			metacognitive levels	metacognitive levels than the control group
4	Begum (2019)	50 students in class 9th	Effect of collaborative learning on metacognition, critical thinking skills	Collaborative learning improved metacognition, critical thinking skills
5	Ebomoy (2020)	65 Undergraduate Microbiology students	Metacognition and peer learning strategies as predictors in problem-solving performance in Microbiology	Metacognition and peer learning strategies are positive predictors in problem-solving performance in Microbiology
6	Galeano et.al. (2020)	19 documents	Applications of metacognitive strategies	Many factors are responsible for quality learning
7	Guner and Erbay (2020)	37 middle school students in the eighth class	Metacognitive skills in problem-solving	High metacognitive skills developed high problem-solving
8	Muntazhimah et.al. (2019)	This research is a library research preceded by a preliminary study to find the problems.	The metacognitive strategies in collaborative learning settings in mathematics ability.	The metacognitive strategies could be applied in collaborative learning settings to enhance student's mathematics abilities.
9	Ouyang et.al. (2021)	Three groups of Higher Education students, 98, 83, and 82 students respectively	Scaffoldings in the collaborative problem-solving processes	Scaffoldings improve the collaborative problem-solving processes of students
10	Smith (2023)	12 students in three groups and three sessions	Collaborative metacognitive talk and problem-solving in Mathematics	The teacher-student collaborative talk helped more in problem-solving than student-student metacognitive talk
11	Vijayakumari & D'Souza (2013)	54 students of 9th class	Metacognitive Co-operative Learning Approach and Mathematics Achievement	Metacognitive co-operative learning approach enhanced Mathematics achievement
12	Wismath and Orr (2015)	133 university students	Collaborative learning in problem-solving through metacognitive strategies	collaborative learning through metacognitive strategies was helpful in problem-solving

Conclusion

It is concluded from the above discussion that the research question 1. What is the role of the metacognitive instructional programme based on collaborative learning in problem-solving and academic achievement? is resolved by the findings that the metacognitive instructional programme based on collaborative learning has a positive effect on problem-solving and academic achievement. It increases problem-solving ability, and academic achievement among students than other conventional teaching methodologies.

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TRANSFORMING LEARNING LANDSCAPES: THE IMPACT OF TECHNOLOGY INTEGRATION IN HIGHER EDUCATION

Dr Manjula R
Assistant Professor
GFGC, Kuvempunagar, Mysore
Email: manjulamanohara@gmail.com

ABSTRACT

In the rapidly evolving educational landscape, technology plays a pivotal role in shaping teaching methodologies and learning environments. This review explores the integration of technology in higher education, specifically focusing on its transformative impact on pedagogical approaches and educational outcomes. Beginning with a historical overview of technological advancements in education, the paper discusses current implementations such as Learning Management Systems (LMS), Massive Open Online Courses (MOOCs), adaptive technologies, and AI-driven platforms. The review assesses the influence of these technologies on student engagement, accessibility, and personalized learning, addressing the challenges posed by the digital divide and privacy concerns. Case studies from various Indian institutions illustrate successful integrations and highlight lessons learned. Looking ahead, the paper identifies emerging technologies that promise to further revolutionize higher education, including blockchain and advanced AI applications. The findings underscore the necessity for continuous adaptation and investment in educational technologies to enhance learning experiences and outcomes. The review concludes with strategic recommendations for educators and policymakers to navigate the future of technology in education.
Key words: *Technology Integration, Higher Education, Learning Management Systems (LMS), MOOCs, Adaptive Learning, Artificial Intelligence in Education*

Introduction

The advent of digital technology has ushered in profound transformations across various sectors, with education being one of the most significantly impacted. This review aims to critically evaluate how the integration of technology is reshaping higher education landscapes. It seeks to explore the broad spectrum of technological advancements—from Learning Management Systems (LMS) and Massive Open Online Courses (MOOCs) to artificial intelligence and adaptive learning tools—and assess their implications for teaching and learning practices. The scope of this article extends to understanding these changes within the Indian educational context, providing a comprehensive overview of how technology is not just supplementing but fundamentally altering educational paradigms.

Importance of Technology in Education:

Technology's role in education has grown from mere facilitation to becoming essential to the instructional and learning processes. In contemporary educational settings, technology enhances learning by making it more accessible, engaging, and tailored to individual needs. The increasing reliance on digital tools has enabled educators to transcend traditional boundaries, facilitating anytime, anywhere learning that is more aligned with the needs of today's digital natives. Moreover, technological tools offer unprecedented opportunities in tracking student progress, automating administrative tasks, and fostering interactive learning environments. This integration promises to not only improve educational outcomes but also to democratize education, making it more equitable by reaching underserved populations. This review delves into these transformative potentials, examining both the advancements and the challenges that define the current educational landscape.

Historical Context
Evolution of Technology in Education
The incorporation of technology into education has evolved dramatically from simple tools to sophisticated digital platforms that now form the backbone of educational delivery systems worldwide. Initially, educational technology was limited to tools like the overhead projector and television, which were used to support traditional teaching methods. However, the advent of personal computers and the internet catalyzed a significant shift, paving the way for interactive and distance learning. The 1990s witnessed the rise of the internet, which began to transform educational paradigms by providing digital access to resources and enabling remote interactions. As we moved into the 21st century, the proliferation of mobile technology and cloud computing further revolutionized access to education, making learning more flexible and student-centered.

Milestones in Educational Technology
Several key innovations have significantly shaped the landscape of higher education through technology:

1. **The Introduction of the Personal Computer:** In the late 20th century, personal computers made their way into educational institutions, providing a new platform for interactive learning and software development tailored to educational needs.
2. **Online Learning Platforms and Learning Management Systems (LMS):** Platforms like Blackboard, which emerged in the late 1990s, and later Moodle and Canvas, revolutionized how courses were delivered and managed, facilitating online course management, student submissions, and discussions.
3. **Massive Open Online Courses (MOOCs):** Initiated in 2008, MOOCs represented a major milestone by offering free (or low-cost) courses to large numbers of students across the globe, democratizing access to high-quality education from prestigious institutions.
4. **Interactive Whiteboards and Smart Classrooms:** The early 2000s saw the adoption of interactive whiteboards, enhancing the interactivity of the learning environment. This evolved into today's smart classrooms, which integrate various forms of technology to create immersive and dynamic learning experiences.
5. **Artificial Intelligence and Adaptive Learning:** More recently, AI has begun to influence education by enabling personalized learning experiences through adaptive learning technologies that adjust the instructional pace and content to the individual learner's needs.
6. **Virtual and Augmented Reality (VR/AR):** These technologies have begun to be implemented in the past decade, offering immersive learning experiences that are particularly useful in fields such as medicine, engineering, and science.

Each of these milestones not only reflects technological advancements but also indicates a shift towards more learner-centered educational models facilitated by technology. This historical overview sets the stage for understanding current technologies in higher education, discussed in the next section, by showing how foundational developments have led to contemporary educational innovations.

Current Technologies in Higher Education
Learning Management Systems (LMS)
Learning Management Systems (LMS) such as Moodle, Blackboard, and Canvas have become cornerstones of contemporary education, offering robust platforms for managing course content, facilitating communication between students and instructors, and assessing student progress. These systems provide a centralized online hub that supports both traditional and distance learning formats. Their adaptability and user-friendly interfaces enhance the educational experience by integrating multimedia resources, discussion boards, and real-time feedback mechanisms.

Massive Open Online Courses (MOOCs)

Massive Open Online Courses (MOOCs), including platforms like Coursera and edX, have revolutionized access to education. By offering courses from universities around the world at little or no cost, MOOCs have democratized learning, enabling anyone with internet access to study a wide range of subjects. The scalability of MOOCs means they can reach thousands of students simultaneously, breaking down geographical and financial barriers to education.

Adaptive Learning Technologies

Adaptive learning technologies represent a significant advancement in personalized education. These tools analyze a student's performance in real-time and adjust the difficulty of tasks, the pace of learning, or the style of instructional content based on individual needs. This approach ensures a tailored educational experience that can lead to improved learning outcomes and greater student engagement.

Virtual and Augmented Reality (VR/AR)

Virtual and Augmented Reality technologies are increasingly being employed to provide immersive educational experiences that enhance learning and retention. VR allows students to interact with three-dimensional environments, simulating real-life scenarios that would be impossible or impractical to experience otherwise. AR overlays digital information onto the real world, enhancing the learning environment without creating an entirely artificial one. These technologies are particularly beneficial in fields such as medicine, engineering, and science, where hands-on practice is crucial.

AI and Automation

Artificial Intelligence (AI) and automation are transforming higher education through the development of smart educational tools and systems. AI algorithms personalize learning experiences, provide adaptive feedback, and can automate routine tasks like grading and scheduling. This not only improves efficiency but also allows educators to dedicate more time to teaching and less to administrative tasks. Additionally, AI-driven analytics can help identify trends and predict student performance, thereby informing educational strategies and interventions.

Impact of Technology on Teaching and Learning

Enhancing Engagement and Interactivity

Technology has significantly enhanced student engagement and interactivity in educational settings. Interactive tools such as digital whiteboards, audience response systems, and collaborative software allow for real-time interaction and can engage students more deeply than traditional lecture methods. Furthermore, gamification and simulation technologies have proven effective in making learning more dynamic and enjoyable, thereby increasing student motivation and participation.

Accessibility and Inclusivity

Technological advancements have played a crucial role in making education more accessible and inclusive, particularly for students with disabilities. Assistive technologies, such as speech-to-text software, screen readers, and specialized learning apps, provide necessary accommodations to help overcome learning barriers. Online learning platforms and e-textbooks offer customizable learning environments that can be adjusted to individual needs, ensuring all students have equal access to educational resources.

Data Analytics in Education

The use of big data in education has transformed how educational outcomes are analyzed and enhanced. Educational data analytics involves the collection and analysis of educational data to improve teaching strategies, student performance, and curriculum design. By leveraging data from various sources, educators can make informed decisions that tailor educational experiences to meet the diverse needs of students, thereby personalizing the learning process and improving academic achievement.

Challenges and Limitations

Despite the benefits, the integration of technology in education comes with challenges and limitations. The digital divide remains a significant issue, with disparities in access to technology affecting students in underprivileged regions. Privacy concerns also arise with the increased use of digital tools that collect extensive amounts of personal data. Additionally, there is a risk of technology overload, where excessive use of digital devices may lead to diminished human interaction and increased stress among students.

Case Studies

Successful Implementations

Several institutions have successfully integrated technology into their curricula, demonstrating significant improvements in pedagogy and student outcomes. For instance, the Massachusetts Institute of Technology (MIT) has been a pioneer with its OpenCourseWare (OCW) initiative, providing free course materials online and fostering an open learning environment that other institutions have emulated. Similarly, Arizona State University has leveraged adaptive learning technologies to personalize education and increase retention rates, especially in STEM fields.

Comparative Analysis

A comparative analysis of institutions with high versus low levels of technology integration often reveals stark differences in educational outcomes and student satisfaction. Institutions with high levels of technology integration, such as Stanford University and the University of Edinburgh, typically report higher engagement rates, better accessibility for disabled students, and more robust learning analytics systems. In contrast, institutions with lower levels of technology integration often struggle with student retention and engagement, and face challenges in delivering personalized education.

Lessons Learned

The case studies highlight several key lessons:

1. **Strategic Planning:** Successful technology integration requires careful planning and alignment with institutional goals.
2. **Faculty Training:** Institutions must invest in ongoing professional development to ensure faculty can effectively use new technologies.
3. **Student Support Systems:** Technology should be complemented by strong support systems to maximize its educational impact.
4. **Regular Assessment:** Continuous assessment of technology's impact on teaching and learning can help refine and optimize its use.

Future Directions

Emerging Technologies

The future of higher education is likely to be significantly shaped by emerging technologies that promise to enhance learning environments and operational efficiency. One notable technology is blockchain, which could revolutionize the way educational credentials are issued and verified, making the process more transparent and secure. Another is the deeper integration of artificial intelligence (AI) into educational systems, which could lead to more personalized learning paths and adaptive learning environments. Additionally, the advancement of Internet of Things (IoT) devices could further enhance interactive learning and real-time data collection in educational settings.

Predictions and Trends

As technological integration continues, several trends are expected to shape the future landscape of higher education:

1. **Increased Personalization:** AI and machine learning will drive more personalized learning experiences, tailoring educational content to individual student needs and learning styles.

2. **Greater Accessibility:** Technologies like AI-powered translation tools and accessibility-enhanced interfaces will make education more accessible to students worldwide, including those with disabilities.
3. **More Efficient Administration:** Automation and AI will streamline administrative processes, reducing costs and freeing up resources for direct educational purposes.
4. **Expanded Online Learning:** The success of MOOCs and virtual classrooms during the COVID-19 pandemic is likely to encourage more institutions to offer robust online learning options.
5. **Enhanced Security and Privacy:** With the increasing digitization of educational resources, there will be a greater focus on cybersecurity measures to protect student data and privacy.

These developments will require educators, administrators, and policymakers to remain flexible and forward-thinking to harness the full potential of technology in education.

Conclusion

Summary of Findings

This review has explored the significant role that technology plays in transforming higher education. Key findings indicate that Learning Management Systems (LMS), Massive Open Online Courses (MOOCs), adaptive learning technologies, virtual and augmented reality, and artificial intelligence are critical in enhancing educational delivery and student learning. These technologies have been shown to increase engagement and interactivity, provide greater accessibility, and enable personalized learning experiences. However, challenges such as the digital divide, privacy concerns, and potential technology overload highlight the need for careful integration and management of these tools.

Recommendations for Educators and Policymakers

Based on the findings of this review, several recommendations are proposed for educators and policymakers:

1. **Invest in Training:** Provide ongoing professional development for educators to effectively utilize technology in their teaching.
2. **Ensure Equitable Access:** Develop infrastructure and policies that ensure all students have equal access to educational technologies, addressing the digital divide.
3. **Enhance Data Privacy:** Implement stringent data protection measures to safeguard student information.
4. **Promote Flexible Learning Environments:** Encourage the adoption of hybrid learning models that integrate the best aspects of traditional and digital education.
5. **Foster Collaborative Learning:** Utilize technologies that promote collaboration among students and between institutions globally.

Call to Action

In light of the transformative potential of technology in education, further research and the adoption of innovative technologies are imperative. Stakeholders in the educational sector—ranging from institutional leaders to government bodies—must invest in exploring new technologies and strategies that enhance teaching and learning. Additionally, sharing successes and lessons learned through broader networks can accelerate the adoption of effective practices across the globe. By embracing these changes, the education sector can not only improve learning outcomes but also better prepare students for an increasingly digital world.

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MOOCs (MASSIVE OPEN ONLINE COURSES) FOR ENHANCED LEARNING IN INDIAN SCENARIO

Muralidharan S.R
*Research Scholar, Department of Studies and Research in
Library and Information science, Jnana Sahyadri Campus, Kuvempu University,
Shankarghatta, Shivamogga District. Email Id- srmurali4288@gmail.com*

Venkatesh M.S
*Assistant Librarian, Bengaluru North University Kolar
Karnataka State, India. venkatrishi111@gmail.com*

ABSTRACT
Massive open online courses are open to everyone and offered for free. Having seen a high enrolment, and to offer a flexible and cheap approach to enhance your profession and provide high-quality educational experiences. India has started a number of initiatives, including SWAYAM, NPTL, edX, Coursera, and MooKIT. To promote continuing education in India, numerous online platforms have been created to offer online courses. This study described MOOC characteristics as well as several online platforms used in India.
Keywords: *MOOCS, Indian Scenario, Online Courses.*

Introduction
Massive open online courses are open to everyone and offered for free. To give excellent educational experiences, an affordable and flexible method to learn new skills and to build your career. What you want affected should go here. After that, click the button below. It's that simple.

Where it's all started? : The open educational resources (OER) movement, which was started by the MIT open courseware initiative in the US, gave rise to the first MOOCs. For a course called "connectivism and connective knowledge" offered by The University of Manitoba, Dave Cormier of the University of Prince Edward Island introduced the term MOOC in 2008.Changes to your text are highlighted in orange, and you can add more by clicking on specific phrases and changing them with synonyms. Test it out.

Characteristics of Moocs:
- Massive: MOOCs may attract a sizable number of students. More than 81 million people registered for it worldwide. In 2017, it saw over 23 million new registrations (Class central, 2018).
- Open: There are no official qualification requirements for participation in a MOOC; anyone who is ready to learn can sign up and take part. Anyone with access to the Internet is welcome to participate, and participation is absolutely free. One may sign up for multiple courses. All participants get access to the shared resources that were created for the course.
- Interactive: MOOCs offer very interactive classes. It offers chances for communication with both the tutors and other students. The contributors are urged to produce and distribute their works.
- Four Quadrant Approach: Discussion forum, e-Tutorial, e-Content, and Assessment. E-Tutorial.

MOOCS: INDIAN SCENARIO
In India, MOOCs have immense potential. In recent years, India's student population has dramatically increased. Numerous well-known MOOC providers, such as edX, Coursera, and Udacity, offer courses in India. Currently, MOOCs have helped a lot of people in India address the gap in higher education need. India had tremendous expansion

and, after the United States of America, has dominated world development. having seen a significant increase in enrollment on MOOC sites like Coursera, edX, Udacity, and most recently Swayam.

MOOCS Platforms in India

The Indian government has undertaken a number of steps to boost online learning, which has helped many individuals continue their education and raised the country's enrollment rate. The well-known online platforms in India are SWAYAM, NPTEL, mooKIT, edX, and Coursera. moreover offering online education in a variety of subjects. The list of online education providers in India is shown below.

SWAYAM, U18, Million Lights, EduKart Open, NPTEL, Vskills, mooKIT, LearnVern, IIT BombayX, Apna Course, Shikshit India, and Digital Vidya are just a few examples.

SWAYAM (Study webs of Active-learning for Young Aspiring minds)

SWAYAM is a top-notch platform designed and built in India that offers study networks for young, aspirant minds. Learners can access free courses on SWAYAM that are curriculum-based MOOCs in all fields from undergrad to postgrad, functional since 16 November 2016, with 700 MOOCs uploaded and more than 1.90 thousand registered students. How to enroll in the course and register for it on SWAYAM at https://swayam.gov.in

The major challenges for MOOCs in India

- It is difficult to create digital material. Voice, video, structured text, and animation all belong to digital content. In addition to subject specialists, it calls for digital content developers.
- End devices: These are the ones utilized to view and, if possible, download digital information. Engineering & Technology International Journal 857
- Internet access: Access to and the speed of the internet are two of the most crucial and difficult factors. The internet platform requires a minimal amount of bandwidth, which is a big drawback in rural areas of the country.
- Language barrier: This is a significant hurdle to online education, especially in India. Almost all online learning platforms provide English-language courses. MOOCs should take this into account, offer the courses in a variety of languages, and be used in local settings.
- Assessment and evaluation: Where significant investment has been made, proper assessment procedures must be included.
- Dropout ratio: A major issue with MOOCs is their high dropout rate. Only 5–10% of students will finish the entire course (De Coutere, 2014). To reduce the dropout rate, students need to be motivated to engage and finish their courses. The factors that would be employed to drive the learners are financial gain, personal development, and professional identity.

Conclusion : MOOCs are incredible tools for skill development and online courses will help us to update our knowledge, this is also will help us in our own professional development and it is essential at least two courses every year that we people should complete and should be role module for everybody.

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UPHOLDING GENDER EQUALITY: THE ROLE OF THE INDIAN CONSTITUTION

Dr. N.S Ambedkar
Principal, Government Law College, Kolar

ABSTRACT

This article explores the pivotal role of the Indian Constitution in advancing gender equality within the diverse and dynamic landscape of Indian society. It delves into the historical context, constitutional guarantees, judicial pronouncements, and ongoing challenges in the pursuit of gender equality. The Indian Constitution, with its foundational principles of equality, justice, and dignity, provides a comprehensive framework for realizing gender equality across various spheres of life. Through a meticulous examination of constitutional provisions, such as the Right to Equality and Directive Principles of State Policy, and landmark judicial decisions, the article highlights the transformative potential of constitutional mechanisms in addressing gender disparities and upholding women's rights. Despite significant strides, challenges persist, necessitating a multi-faceted approach encompassing legislative reforms, gender-sensitive policies, grassroots mobilization, and attitudinal change. Ultimately, the article underscores the imperative of reaffirming our commitment to constitutional ideals and fostering a society where gender equality is not merely a constitutional mandate but a lived reality for all citizens.

Keywords: *Indian Constitution, gender equality, legal provisions, judicial role, societal challenges*

Introduction:

Gender equality stands as a cornerstone of modern society, embodying the principles of fairness, justice, and inclusivity. In the intricate mosaic of Indian society, this principle assumes even greater significance, given the nation's diverse cultural landscape and complex socio-economic dynamics. The quest for gender equality in India has been a journey marked by struggles, progress, and ongoing challenges. At the heart of this endeavor lies the Indian Constitution, a seminal document that not only lays down the foundational principles of governance but also serves as a bulwark against discrimination and injustice.

The preamble of the Indian Constitution solemnly pledges to secure to all its citizens "justice, social, economic, and political," and to ensure "equality of status and opportunity." Embedded within these lofty ideals is a profound commitment to gender equality, recognizing the inherent dignity and worth of every individual regardless of their gender identity. As India embarked on its journey as a sovereign republic in 1950, the framers of the Constitution envisioned a nation where women would stand on equal footing with men, empowered to shape their destinies and contribute meaningfully to the nation's progress.

Against the backdrop of a patriarchal society entrenched in age-old customs and traditions, the Indian Constitution emerged as a beacon of hope for millions of women aspiring for a more just and equitable future. Its provisions not only guarantee fundamental rights but also articulate a vision of social transformation guided by the principles of equality, liberty, and fraternity. Through a meticulous blend of fundamental rights, directive principles, and special provisions, the Constitution lays down a comprehensive framework for realizing gender equality in all spheres of life.

This article seeks to explore the role of the Indian Constitution in advancing gender equality, with a special focus on its legal and constitutional provisions, landmark judicial pronouncements, and the challenges that persist in translating constitutional ideals into tangible outcomes. By delving into the historical context, constitutional guarantees, and the

evolving role of the judiciary, this article aims to underscore the transformative power of the Constitution in shaping India's journey toward gender equality.

As we navigate the complexities of contemporary society, grappling with persistent gender disparities and emerging challenges, it becomes imperative to reaffirm our commitment to the principles enshrined in the Indian Constitution. By harnessing the collective wisdom of our constitutional framework, we can chart a course toward a future where gender equality is not just a distant dream but a lived reality for every Indian citizen. This article seeks to illuminate this journey, celebrating the triumphs, acknowledging the obstacles, and envisioning a future where gender equality reigns supreme as a cornerstone of India's democratic ethos.

Historical Context:

The struggle for **gender equality**[1] India has a long history, marked by numerous social reform movements and legal battles. Before independence, Indian women fought against various forms of discrimination and oppression prevalent in society. However, it was with the adoption of the Indian Constitution[2] in 1950 the principles of equality and justice found explicit expression in the supreme law of the land.

Constitutional Guarantees:

The Indian Constitution enshrines the principles of equality, liberty, and justice for all citizens irrespective of gender. Several provisions explicitly address gender equality and serve as bulwarks against discrimination and marginalization.

Right to Equality (Article 14-18):

- Article 14 ensures equality before the law and equal protection of laws to all persons, while Article 15 prohibits discrimination on grounds of religion, race, caste, sex, or place of birth.
- Article 16 guarantees equality of opportunity in matters of public employment, thereby opening doors for women to participate in various spheres of governance and administration.

Right to Freedom (Article 19-22):

- Article 21 guarantees the right to life and personal liberty, encompassing the right to live with dignity. This provision has been expansively interpreted by the judiciary to include the right to gender equality and protection against gender-based violence.
- Article 23 prohibits trafficking in human beings and forced labor, which disproportionately affect women and girls.

Directive Principles of State Policy (Article 39):

- Article 39 mandates the state to ensure that men and women have equal rights and opportunities, including equal pay for equal work. While these principles are not legally enforceable, they provide a guiding framework for legislative and policy interventions.

Special Provisions (Article 15(3), Article 15(4), Article 15(5)):

- Article 15(3) allows the state to make special provisions for women and children.
- Article 15(4) empowers the state to make reservations in educational institutions for socially and educationally backward classes, including women.
- Article 15(5) enables the state to make reservations in appointments or posts in favor of any backward class of citizens, including women, which is not adequately represented in the services under the state.

Role of Judiciary:

The Indian judiciary has played a crucial role in interpreting the constitutional provisions relating to gender equality and ensuring their effective implementation.

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[1] *Gender Equality*
[2] *Indian Constitution*

Landmark judgments, such as Vishakha v. State of Rajasthan (1997) and Suchita Srivastava v. Chandigarh Administration (2009), have expanded the scope of gender equality and laid down guidelines for preventing sexual harassment at the workplace and ensuring reproductive rights, respectively.

Challenges and the Way Forward:

Despite significant strides, gender inequality persists in various forms, including unequal access to education, employment, healthcare, and political representation. Patriarchal attitudes, deep-rooted stereotypes, and socioeconomic disparities continue to impede progress toward gender equality. Addressing these challenges requires a multi-faceted approach encompassing legal reforms, gender-sensitive policies, grassroots mobilization, and attitudinal change.

Conclusion:

In traversing the landscape of gender equality in India, the Indian Constitution emerges as a guiding light, illuminating the path toward a more just and equitable society. As we reflect on the journey thus far, it becomes evident that while significant progress has been made, challenges persist, reminding us of the imperative to remain steadfast in our commitment to the constitutional ideals of equality, justice, and dignity for all.

The constitutional guarantees of gender equality, enshrined in provisions such as the Right to Equality, Directive Principles of State Policy, and special provisions, serve as the bedrock upon which transformative change can be built. These provisions not only affirm the rights of women but also empower them to assert their agency, challenge discriminatory practices, and claim their rightful place in society.

The role of the judiciary, as the guardian of constitutional values, cannot be overstated. Landmark judgments have expanded the horizons of gender equality, setting precedents for addressing issues such as sexual harassment, reproductive rights, and gender-based violence. Yet, the judiciary's role extends beyond adjudication to fostering a culture of accountability and ensuring the effective implementation of legal safeguards.

As we confront the challenges of the 21st century, from persistent gender disparities to emerging forms of discrimination, the need for a concerted effort becomes apparent. Legislative reforms, gender-sensitive policies, grassroots mobilization, and attitudinal change are essential ingredients in the quest for gender equality. By harnessing the collective will of society, we can dismantle the barriers that perpetuate inequality and create an environment where every individual, irrespective of gender, can flourish and thrive.

In conclusion, the Indian Constitution stands as a testament to our aspirations for a more inclusive and equitable future. Its principles provide a moral compass, guiding us toward a society where gender equality is not just a constitutional mandate but a lived reality. As we celebrate the achievements of the past and confront the challenges of the present, let us reaffirm our commitment to upholding the principles of equality, justice, and dignity enshrined in the Indian Constitution. Together, we can forge a future where every individual, regardless of gender, can realize their full potential and contribute meaningfully to the tapestry of our nation's progress.

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CHARACTERIZATION OF PATHOGEN AND MANAGEMENT OF BACTERIAL LEAF BLIGHT OF RICE

Nalini T.J
Assistant Professor, Department of Botany,
Maharani's Science College for Women, Bengaluru, Email ID : naliniprasanna6@gmail.com

Ramesh Babu H. N
Professor, Department of Botany and Seed Technology,
Sahyadri Science College, Jnana Sahyadri, Kuvempu University, Shankaraghatta

Rajeshwari N.
Professor, Department of Botany and Seed Technology,
Sahyadri Science College, Jnana Sahyadri, Kuvempu University, Shankaraghatta

ABSTRACT

Rice is one of the most widely cultivated crops of the world. In India rice is the staple food of 70% of the population. In order to improve the seed quality and to ensure effective management for this destructive bacterial disease i.e., bacterial leaf blight of rice caused by Xanthomonas oryzae pv. oryzae. The following are salient research findings- most of the fields surveyed are infected with the bacterial leaf blight, only degree of incidence differs. Collected seed samples showed the presence of the pathogen. Among different seed health testing methods, direct plating and seedling symptoms test have shown similar results. Morphological characters of the pathogen were proved with semi- selective and selective media used in the present studies In both the cases the Xanthomonas oryzae pv. oryzae colonies, proved to be slow growing and shows straw-yellow and light-brown shiny colonies respectively. Among biochemical characterization tests, starch and gelatin hydrolysis followed by host tests for Xanthomonas oryzae pv. oryzae are effective in characterizing the pathogen.

The disease incidence in different varieties tested by pathogenicity by leaf clipping shows results correlating with the PAL enzyme estimation, helps estimation, helps to categorize the varieties into resistant and susceptible for the disease. Mangement using PGPR strains have shown effective improvement in seed quality parameters along with reducing disease incidence. The present work can be proceeded with testing the factors responsible for the decrease in disease intensity in PGPR treated seeds. Also molecular detection of the resistant varieties can be done.

Also as a basic step of using RAPD-PCR in finding genetic variability among Xanthomonas oryzae pv. oryzae isolates obtained from the present study, further studies can be done in generating markers of the isolates through RAPD-PCR, which helps in the genetic studies like identification and selection of different resistance gene in rice plant. Studies on this line helps in obtaining resistant rice resistant rice varieties, which is the most significant and economical management practice.

Keywords: *Xanthomonas oryzae pv. oryzae, pathogenicity, bacterial leaf blight, PGPR, PAL, RAPD-PCR.*

Introduction

Rice is the important cereal crop, which is cultivated in largest area in India. Hence rice production promoting agrarian prosperity is obvious, which in turn improves India's economic status, provide direct employment to about 70 % of working people in the country. It forms the basis of many premier industries of India, including the textile, jute, and sugar industries. Agriculture contributes about 31 % to Gross Domestic Product (GDP); about 25 % of India's exports are agricultural products.

Over 92 % of crop is grown in southern and eastern Asia. Rice growing countries are Australia, Bangladesh, Bhutan, Brazil, Cambodia, China, Egypt, India, Indonesia, Japan, Philippines, Nepal, Sri Lance, Thailand and Vietnam. In India, rice is the staple food of 65 % of the population. It constitutes about 53 % of the total food grain production and 55 % of total cereal production (1).

Major rice cultivating states of India are West Bengal, U.P., M.P., Orissa, Bihar, Andhra Pradesh, Assam, Tamil Nadu, Punjab, Maharashtra, Karnataka, Haryana, Gujarat, Kerala, Tripura, Meghalaya, Manipur, Rajasthan, Nagaland, Mizoram, Goa, Pondicherry and Sikkim. In India rice is cultivated in an area of 42.24 million hectares (mh) with the production of 82 million tonnes (not) in 1999. During the last five decades, rice area has increased only by one and half times from 30 mh to 45 mh, the rice production has increased more than four times from 22 mt to 90 mt and the productivity has increased from 700 kg/ha to 2000 kg/ha. Now in India, area of rice cultivation is 45mh with the production of 78.64 into in 2003 (Anon., 2004). In Karnataka it is grown in an area of

1.13 mh with the production of 2.82 mt. India has the largest area under rice production in the world. Out of 43 mh of harvested rice area, about 33 % are rained lowland, 45 % irrigated, 15 % rained upland and 7 % flood-prone. India became self-sufficient in rice production in 1977, through increasing area under cultivation and cropping intensity (2).

Table 1: List of important seed-borne rice diseases and their pathogens.

Fungal diseases

1	Rice blast	Pyricularia oryzae
2	Rice sheath blight	Rhizoctonia solani
3	Brown spot	Bipol'aris oryzae
4	False smut	Ustilaginoidia virens
5	Leaf scald	Gerlarici oryzae
6	Sheath rot	Sarocladfum oryzae
7	Leaf smut	Entyloma oryzae
8	Downy mildew	Sclerophthora macrospora
9	Kernel smut	Telletia barclayann
10	Udbatta disease	Ephilis oryzae

Viral diseases

1	Bunchy smut	Bunchy smut virus
2	Gall dwarf	Rice gall dwarf virus
3	Tungro	Rice tungro spherical virus
4	Black Streaked dwarf	Black streaked dwarf virus

Bacterial Diseases

1	Bacterial leaf blight	Xanthonomonas oryzae pv. Oryzae
2	Bacterial leaf streak	Xanthonomonas oryzae pv. Oryzicola
3	Bacterial sheath brown spot	Pseudomonas fuscovaginae
4	Bacterial grain not	Pseudomonas glaive
5	Bacterial sheath rot	Pseudomonas syringe pv. Syringe

Review of Literature

Occurrence and distribution

Bacterial leaf blight (BLB) disease was worldwide in distribution. Particularly destructive in Asia during monsoon. Farmers in Fukuoka area first saw the disease in Japan in 1884. In India the disease was first reported from Kolaba district of Maharashtra (1959) and Bhapkar et al.(1-960), the disease was considered to be of minor importance in Maharashtra until it broke out in an epidemic form in Shalibad district of Bihar in 1963 It is typically vascular disease, considered to be one of the destructive diseases of rice in Asia including India-(On, 1'972). Bradbury (1986) has reported disease distribution in several

African countries) Uttar Pradesh, Maharashtra, Orissa, Tamil Nadu, U.P., West Bengal (Bradbury, 1986; Tikoo et al., 1987; Mondal et al., 1996).

In USA, Xanthomonas oryzae pv. oryzae was first reported in 1989, confined to Texas and Louisiana strains were of low virulence compared with Asian strains (Jones et al., 1989). The study of disease in Japan commenced in 1901.Bokur (1911) established the bacterial nature of the disease.

Symptoms of Bacterial leaf blight of rice

Rice plant gets affected by the invasion of bacteria in the following stages, viz., seedling stage, vegetative and growing stage. The whole leaf may eventually be affected, systemic infection known as kresek symptoms were first described as a separate disease in Indonesia. Parts of the plant getting affected include whole plant, leaves and seeds (Srinivasan et al., i 959).

Seed-borne nature and Seed transmission of the pathogen Apart from various means of survival, seeds are ideal hibernating place for the Bacterium. Through various seed health testing methods, about 1 -1000/ infection of seeds in various cultivars has been reported (Srivastava and Rao, 1964;Hsieh et al., 1974; Kauffman and Reddy, 1975) has been established by several workers (Srivastava and Rao, 1964; Singh et al.,1983, Koroleva ct al., 1985).

The outbreak of bacterial blight epidemics in china during intensive seed jyport has been tested and reported (Fang and Hsu,' l978J. Xanthonionas oryzae pv. oryzae is extensively seed-borne in rice. A histological study indicated that the pathogen was in the parenchyma but rarely in the vascular tissues of husk, embryo and endospermic of infected seeds (Mukherjee and Singh, 1983) Also tested reports say seed transmission of the disease is true (Isaka, 1970, Singh et-al., 1983;'Triintirthy and Devadath, 1984; Veena ef al., 1998; Mortensen, 1999).

Host range

Cyperaceous (sedges) that are naturally infected include Cyprus deforms and C. rotundas. All these are secondary hosts. In tropics, Leptochloa chinensis, L. filiformis and L. panacea have been found as weed hosts in the Philippines; large lesions were produced on these plants by artificial inoculation with needles (IRRI, 1967). Cyperus rotundas and C. deforms are also reported from India as being alternative hosts found infected in Nature, but this was not confirmed by others (2).

Disease cycle

The organism may live for one to three months, the time depending on soil moisture and Acidity. (29) reported two forms of the bacterium, the ordinary growth form and a dry form which produces an aggregated mass in the vessel and xylem parenchyma. In the tropics, (25) found a high Percentage of seed infection in India. The over wintering of the pathogen in a temperate climate has been carefully studied in Japan (27).

Studies in the Philippines (IRRI, 1968; 5, 21) have shown that the organism survives on seed and infected leaves for only a few weeks at high temperatures, although it can survive of several months to one year at low temperatures (4°C) and for two years or more at -30°C. It was reported from India (2).The infected seed perpetuate the disease from one season to another season (23).

Yield lose

Bacterial leaf blight is one of the most serious diseases of rice, which is known Worldwide. It is common in both tropical and temperate countries. Strains in tropical Areas are more virulent than that of in the temperate region. Losses are found to be maximum at or after maximum tailoring or at the booting stage, it does not affect the number of ears or spikelet (27).

MATERIALS AND METHODS

Hypersensitive tests: Most bacterial plant pathogens can induce a hypersensitive response (HR) when injected into the tissues of a non-susceptible host plant. For many

bacteria tobacco is preferred, since it is easy to cultivate and maintain. Its large cavities beside leaf veins make it relatively easy to infiltrate inoculum and its reaction to many pathogens. Pepper plants are also preferred for Xanthomonads

Tobacco and pepper hypersensitive test: Xanthomonas spp. can induce HR in tobacco plants incubated at 16°C for 4 days prior to inoculation and 33°C after inoculation. Aqueous suspension was prepared from a 24-48 h old bacterial culture (10^8 -10^9 cfu/ml), with optical density (OD) approximately 0.45 at 61Onm. Suspension was injected into the mesophyll of the leaf blade by inserting the needle of a hypodermic syringe (narrow gauge needle of approximately 0.4 mm diameter). The diagonal of the needle aperture should be adjacent and parallel to the surface of the tissue. Thus, sufficient inoculum was flood into the intercellular spaces (apparent by water soaking of the tissue). A separate area of the lamina was injected with sterile distilled water as a control and with a culture of the pathogen from the same group as the culture being tested and known to cause a typical HR as a positive control and labelled accordingly.

Pathogenicity test using clip inoculation method : The aim of the host test is to determine whether or not a suspected pathogen can cause disease symptoms in the host from which it was isolated. For many plant diseases this test is the only method for confirming or negating an initial presumptive diagnosis.

This method determines the pathogenicity of the bacterial isolates, and degree Of resistance/susceptibility of the host. All the collected rice varieties were sown in pots filled with soil, sand and manure. The seeds were sown on the wet pots and cower with a thin layer of soil and flooded with water. Seedlings were sown on the wet post and covered with a thin layer of soil and flooded with water. Seedlings were raised in Screen house conditions by following normal agronomical practices, like watering every day and application of chemical fertilizer (NPK) at 20 day intervals.

The bacterial isolates. Were grown on YDC media. 36 h old culture was scraped from plates and washed by centrifuging the same at 5000 rpm for 5 min with sterile saline. Cell suspensions were adjusted to 1 X10^8 cfu/ml by adjusting the OD at A_{610} nm to0.45 and scissors by dipping into the bacterial suspension and cut but "of the leaf of the plants with appropriate controls. Plants were covered with polythene bags and. maintained in green house conditions with more relative humidity. After 3-4 days, plants were observed for the development of typical symptoms of BLB from cut portion of the leaf and observation was continued up to one month according to standard procedure of IRRI (IRRI, 1988). Experiments were conducted in 4 replicates for each sample and one as control for each variety, which are mock inoculated with distilled water without *oryzae pv. oryzae*. Finally, the varieties are classified in to resistant (within 25 % incidence), moderately resistant (25 to 50 %) and susceptible (above 50 %) based on the disease incidence (22)

Management of Bacterial leaf Blight of rice using PGPR strains

Few of the rhizobacteria are beneficial to plants by promoting growth or by acting as biocontrol agents or both. They have been named as "Plant Growth Promoting Rhizobacteria" (PGPR).

Seed treatment with PGPR strains:

Seven different strains of PGPR* are inoculated on to be nutrient broth (peptone, 5g; beef extract, 3g; distilled water 1000ml. 80 ml of the broth in eight 100ml conical flasks was taken and sterilized by putting cotton plugs) with one uninoculated control and incubated at room temperature for 48 hours. During incubation growth can be influenced by agitation by keeping the flasks on shaker adjusted to minimum speed. 48 hours old cultures were centrifuged at 5000 rpm for 5 minutes, the pellet was collected and dissolved in sterile distilled water or saline and OD at A_{610} is adjusted to 0.45, so that the cell concentration is 1X10^8 cfu/ml. Thus prepared cell suspension of all the PGPR strains was used to soak needs and kept overnight on shaker. Thus treated seeds were plated the moist germination paper towels in 4 replicates of 100 seeds each, towels were rolled, ends are closed with

rubber bands and placed them in polythene bags , finally incubated them in an upright position at 30+2° C for 9 days, moisture was maintained during incubation. After 9 days seedlings are controls.

In vitro agar diffusion assay

Cell suspension of the virulent isolate of *Xanthomonas oryzae pv. oryzae* was prepared with cell concentration of $1X10^8$ cfu/ml. 50µl of the cell suspension was spread on to the sterilized nutrient agar media in sterilized glass petriplates. 5 wells are made using 15 mm cork borer and 50 µl of $1X10^8$ cfu/ml cell suspensions of each PGPR strains were poured into the wells by maintaining 4 replicates of each strain following random distribution in different plates. Experiment was conducted with distilled water and 0.1 % streptomycin as controls.

Challenge inoculation with *X. oryzae pv. oryzae* : PGPR treated seeds were sown in 4 replicates of 50 seeds per pot, also one pot with 50 untreated seeds as control for each strain and maintained in screen house conditions by following normal agronomical practices. 35-40 days old seedlings were challenge inoculated with 48 h old virulent isolate (confirmed by technique. Percen incidence of the disease symptoms raised from the untreated seeds as control.

Results

Management of Bacterial leaf blight of rice using PGPR strains

Effect of PGPR strains on seed germination and seedling vigor of rice seeds of variety

Jaya: Germination (%) and also seedling vigour of paddy seeds treated with seven different PGPR strains, was increased considerably, and also symptoms on the germinated seedling 11, 937a and INR-7 were effective in improving the quality of the seeds followed by 937b, T_4 and GBO3. Minimum effect was seen only in one PGPR strain; SE-34, among the seven strains treated. The germination was increased from 86% in untreated control to 91% when treated with IPC-11 strain. The mean root length and mean root length were also increased, control to 1834 when seeds were treated with IPC-11 strain(Table 3 ; Fig.15).

In vitro agar diffusion assay:

Among the three strains which were found improving seed quality parameters, shown the zone of inhibition (1.3cm) against the growth of *X. oryzae pv.* oryzae. Antibiotic streptocyclin (0.1%) was also inhibited. (1.1 cm) the pathogen growth on nutrient agar media(Fig.16).

Challenge Inoculation with *X. oryzae pv. oryzae:*

PGPR treated seedlings (35-day-old) have shown reduced lesions of *X. oryzae pv. oryzae.* When the leaves were challenge inoculated with *X. oryzae pv. oryzae,* there was maximum reduction in the disease intensity when compared to control seedlings. This shows PGPR strains can effectively reduce the bacterial leaf blight of rice (Table 2; Fig. 17)

Table 2: Effect of PGPR strains on the incidence of bacterial leaf blight of rice under green house conditions

Treatment	Bacterial leaf blight incidence(%)
Control	64
INR-7	30
GBO3	32
937a	31
937b	41
SE-34	45
T4	29

Control   PGPR Treated.
Figure 15. Effect of Seed treatment with PGPR strains on seed germination and seedling vigour.
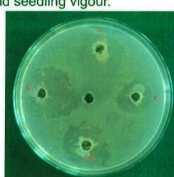
Figure 16. *In vitro* agar diffusion assay showing inhibition zone aganist *Xanthomonas oryzae* pv. *oryzae*. A. IPC-11, b.937a, c. INR-7 and d. Streptocyclin

Figure 17. Effect of PGPR seed treatment on *Xanthomonas oryzae* pv. *oryzae*. establishment. challenged with *Xanthomonas oryzae* pv. *Oryzae*. control

Table 3: Effect of *Xanthomonas oryzae pv. oryzae* on PAL activity

Variety	PAL activity(µ mols of t-CA mg⁻¹ protein h⁻¹)				Per cent increase (+) or decrease (-) in PAL acivity	
	Healthy		Inoculated			
	10DAI	15DAI	10 DAI	15DAI	10 DAI	15DAI
Jaya	3621	23026	3021	19201	-16	-17
Jyothi	5866	28292	6037	30580	+3	+8
MTU 1010	4323	17019	3347	12546	-22	-26
IR 64	4035	38696	4173	39382	+3	+1
IR 36	11227	13238	11217	13295		

DAI= DAYS after inoculation: PAL activity was assayed using 35-day-old rice leaves clipped with **Xanthomonas oryzae pv. oryzae ;** Leaf samples were collected 10 days and 15 days after clipping with the pathogen.

Table 4: Effect of PGPR strains on the seed germination and seedling vigour of paddy seeds (variety: Jaya)

Sl. No.	Treatments	Germination (%)	MRL	MSL	VI
1.	Control	86+1.1	10.9+ 0.5	4.05	1288.4
2.	IPC-11	92	15.1	5.98	18403
3.	937a	91.9	14.6	5.99	1695.2

4.	INR-7	91.5	13.5	5.46	1815
5.	937b	89	15.05	5.27	1902
6.	T4	88.7	11.8	7.81	1707
7.	GBO3	89.5	12.3	7.83	1660
8.	SE-34	83.7	14.6	6.62	1784

MRL=Mean Root Length, MSL= Mean Shoot length and VI= Vigour Index.

Conclusion:

The causal organism for this bacterial leaf blight disease **X. oryzae pv. oryzae** is a gram negative, it can not hydrolyse starch and gelatin. These characterization results of the presen study are exactly similar to Dye (1962). The results of Kovac's oxidase test, gelatin hydrolysis is negative in the present studies. The results of pathogenicity reaction by leaf clipping was effectively demonstrated the standard procedure for inoculation of **X. oryzae pv. oryzae**. This test served dual purposes, as pathogenicity test and also to confirm the isolated bacteria as **X. oryzae pv. oryzae**. Leaf clipping technique, is the standard method to test the pathogenicity of **X. oryzae pv. oryzae** when plants are clipped, typical symptoms of the bacterial leaf blight were observed. The pathogenicity test by leaf clipping to all varieties, resulting in maximum lesion movement in a susceptible variety as proved by PAL estimation in which the susceptible variety has shown effective decrease in the PAL activity after inoculation with **X. oryzae pv. oryzae.** Reports from elsewhere indicated that the involvement of peroxidase, PAL, Coumarate: CoA ligase in bacterial leaf blight pathogenesis and also phosphoglucose isomerase. This result effectively demonstrated that, in the susceptible variety, the multiplication of **X. oryzae pv. oryzae** is rapid when inoculated with the pathogen using the standard procedure. (). These results from the present studies supports leaf inoculation method to test the efficacy of **X. oryzae pv. oryzae** isolates and also to test the degree of resistance/susceptibility different in rice varieties to bacterial leaf blight. The clip inoculation and categorization of rice varieties, which are tested in this study by using clip-inoculation method needs the confirmation by testing the same under field conditions and we have to prove the Koch's postulates by isolating the pathogen from the inoculated plant and confirm the same with various biochemical characterization tests.

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CORPORATE SOCIAL RESPONSIBILITY ON THE ISSUES OF HIGHER EDUCATION – A STUDY

Dr. Padmalatha R
Associate Professor, Government Law College, Kolar

ABSTRACT

Corporate Social Responsibility (CSR) is the commitment by business to enhance economic development, while at the same time improving the quality of life of the workforce, their families and the society at large. Components of CSR are corporate governance, business ethics, and workplace and business relations. The 21st century is characterized by unprecedented challenges and opportunities, arising from globalization, the desire for inclusive development and the imperatives of climate change. Drawing on the common understanding of corporate social responsibility (CSR), this paper points to the development of strategies and processes for exercising that responsibility in the context of higher education. The paper contains analysis of the scientific literature with an aim to find out theoretical position regarding social ethics and the essence of corporate social responsibility, values orientations typical of the organizational culture environment and other factors underlying cultural formation as well as the potential of the higher educational establishment in the development of the corporate social responsibility approach. The result proves the presence of significant relation between the category of honesty and corporate social responsibility. Corporate social responsibility is part of organizational culture and a value in the organizational culture environment.

Keywords: *Higher education, Corporate Social Responsibility, Corporate Governance, Globalization, inclusive development.*

INTRODUCTION :

Education has a strategic importance in the current era; meanwhile it can be viewed as a systematic strategy which is used to create desired changes in individual behavior in society for the benefit of all. At the same time education is liberating for the individual and creates life chances. Education produces basic properties and services for meeting the vital needs of a nation like health, security, education, defense, communication and cultural development.

The phrase Corporate Social Responsibility (CSR) was coined in 1953 with the publication of Bowen's "Social Responsibility of Businessmen". Further in 1984, the renowned Management Consultant Peter Drucker spoke of the need to turn social problems into economic opportunities. The World Business Council for Sustainable Development (WBCSD) defines CSR as, "The continuous commitment by the business organization to behave ethically and contribute to the economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." European Union (EU) describes CSR as "The concept that an enterprise is accountable for its impact on all relevant stakeholders. It is the continuing commitment by business to behave fairly and responsibly, and contribute to economic development while improving the quality of life of the work force and their families as well as of the local community and society at large." CSR can be considered as a crucial bridge between organizations and society and also a means which can create awareness among corporate. The opening up of the Indian economy after 1991 has resulted in the integration of business economy with the global economy. This has exposed Indian business to market competition.

One of the chief indicators of social progress is education, which plays a key role in questioning the society in achieving self-sustainability and equal development. In view of the

Global recognition of the fact that, business community can contribute to social objectives, education requires corporate involvement at the highest level.

A big step forward in India was the Companies Act 2013. This Act empowers the companies to spend 2% of the average net profits over the previous three years on CSR activities.

The Indian system of education being obsolete it warrants urgent reforms. It is the responsibility of corporates to perform their duties such as: financing of Research and Development, training programs and workshops, investment in infrastructural developments and facilitating qualitative investments, in the midst of the impending challenges.

Components of Corporate Social Responsibility

Business enterprises today are not expected to play only their traditional role of profit making but also have to pressurize companies to act in an economically, socially and environmentally sustainable way.

The following key components form Corporate Social Responsibility:

Corporate Governance

This would take care of corporate objectives, protection of rights of shareholders, meeting of legal requirements and creation of transparency for all the stake-holders.

Business Ethics

This is related to value based and ethical business practices. Business ethics refers to integration of core values such as honesty, trust, respect of fairness into its policies and decision making. It also involves a company's compliance with legal standards and adherence to internal rules and regulations.

Workplace and Labor Relations

This will not only help in improving the work-place with reference to health and employer relations but also bring about a balance between work and non-work aspects of employer's life.

In the last few years there has been a lots of change in the nature of retailing between state and societies. It is being increasingly realized by companies that in order to gain strategic initiatives and ensure continued existence business practices have to be moulded from the objective of only profit making to wider issues such as public goodwill and responsible business etiquettes.

Awareness has been generated in the current global order that if you want to compete efficiently in today's world there is need for clear cut business practices which stress on public interests in the markets. This could be attributed to various factors:

1. An increasing competition among the Multinational Corporations to gain advantage in developing countries through establishment of good will relationship between the government and the society.
2. In most of the developing countries the state has a major role to play and holds the key to business success. This restricts the implementation of tried and tested successful business doctrines which were highly successful in the developed countries.
3. With the rising education levels, emerging markets have been identified as a source of talent. For example India is internationally acclaimed for her software proficiency.
4. Firms all over the world are now realizing the significance of brand name/ morale of the employer.

The concept of CSR has essentially arisen from the fact that the enterprise derives several benefits from the society which would require the enterprise to provide returns to the society and it is the responsibility of the enterprise to provide benefits to society as a whole.

CSR in Higher Education:

The process of globalization has seen the emergence of business as one of the most powerful institutions today. Indian companies have made their way into business boom with India being one of the fastest growing economies. While on one hand, the process of globalization and liberalization has accelerated the rate of economic growth, on the other hand, the integration of Indian economy with global economy has resulted in opening up the Indian businesses to market competition thereby increasing their operations.

The concept of CSR has acquired new dimensions in recent years. In case of India while the concept of family is a revered on, high values are placed on relationship, social stability and education. The presence of diverse relations and concerns bring out distinct attitudes towards community, social behavior as well as support and philanthropic contribution.

One of the Certificate Project indicators of social progress is education, which can be said to be playing an important role for helping the society in achieving self-sustainability and equal development. With increasing global recognition of the fact that business community can in a large way contribute to social objectives, education requires a corporate involvement at a higher level.

With increasing privatization and domination of the market economy it becomes clear that one necessary condition for the thriving of business is the existence of stable, fair and supportive environment. This condition is closely linked to institutions and for historic reasons most Asian and African countries lag behind their European and North American counterparts.

Educational issues are indeed essential for human progress, societal development and for the creation of a healthy economic environment. This has resulted in education earning international recognition as a driver of long term development of developing countries. Therefore it automatically follows that business communities especially Multinational Corporations should play a significant role in optimizing education conditions and lifting the poor countries out of illiteracy and absence of education.

A big step was taken by the Government of India in the form of Companies Act 2013. This legislation requires companies to take actions, make investments and report against a number of metrics related to CSR. PWC India has also released a Handbook on CSR providing guidelines to help companies in complying with the regulations. This Act empowers the companies to spend 2% of the average net profits over the previous three years on CSR activities.

India had to restructure the education system at all three levels. This is made easier when the Corporates also perform their duties towards society. In order to reap benefits they have to have universities and colleges who will produce skilled and trained manpower. This can be facilitated by provision of finance for Research and Development, organization of workshops and training programs, infrastructural developments. At the same time the corporate also have to perform their duties towards society.

The Father of our Nation Mahatma Gandhi had a strong vision of education helping in the curbing of social insecurity and social disharmony. Several Indian Corporations have taken the initiative towards higher education and vocational training. These include Tata Institute of Hotel Management at Aurangabad, ITC Welcom Group's Hotel Management Institute, Reliance's DA-IICT providing Graduate and Undergraduate education in Gujarat and Intel's Higher Education Program.

Today CSR has gone beyond mere charity and donations and has become an integral part of corporate strategy. Corporates like the Tata Group, Aditya Birla Group and Indian Oil Corporation have been involved in serving the community ever since its inception. The ONGC, CSR Projects focus on higher education, granting of scholarships and aid to deserving students / youth belonging to the socially/economically backward sections of society. Let us briefly mention here the need for CSR in India.

In higher education, different areas of CSR practices are discussed below:

1. Design of courses related to social responsibility subject: Higher education institutions should design the courses around social responsibility subject open to students and staff to promote human rights and social inclusion values and ethics among them.
2. CSR on Environment: It covers the activities to reduce the consumption and waste and to create further understanding on the importance of conserving and protecting the environment. For example , higher education can initiate different activities like awareness programmes about green cities or cleanliness, conservation of forest, birds conservation , reduce pollution and sustainability of the environment.
3. Recycling of waste papers: Students can be trained to use the waste papers and prepare paper bags of different size which can be distributed to local health foundation for their self earning.
4. CSR at workplace : It includes the activities commonly attempt to maintain high standards of recruitment, development and retention of employees via employee volunteerism, health, safety and welfare, sports and wellness programmes, employee training and employees" communication channels. Other activities stimulate innovation for green business and technology.
5. CSR on community: It is based on institutions investment to communities such as donation of money, time, services, technology, experts and other resources to make a positive contribution towards local communities. Higher education institutions should contribute social and educational supportive activities for women, children and youth, who live under severe social discrimination and poverty in nearby location.
6. CSR by establishing Research Center: Higher education institutions should conduct scientific research, training and vocational programs, publications and documentation of the social, economic and cultural development of the civil society by establishing research center.
7. CSR towards stake holders: The activities should cover collaborations among stakeholders like students, parents, alumni, organizations and government departments.

The following major aspects need to be addressed while implementing CSR in higher education:

CSR strategy should be implemented with the mission of higher education institutions.

- Highly motivated staff and involvement of the management and willingness in supporting and implementing social responsibility actions is an important signal to faculty, staff, students, alumni and other stakeholders that the institution's citizenship engagement is an operational priority.

Since today`s potential students do not have enough theoretical knowledge of the concept of CSR, so there is a strong desire to change the structure of education system for the successful implementation of CSR in higher education.

- There exists some gap between perceived and desired importance awarded to CSR contents in academic programs, showing a high demand of education in issues concerned to responsible relationships with employees and consumers and environmental sustainability.
- Higher education institutions need to boost its relationship with host communities through constant social supports.
- There is need to take follow-ups, evaluation, control mechanisms and support systems necessary to ensure that the academic services provided to society are consistent with the institutions objectives.

- Higher education institutions should reform the syllabi and include CSR subject at the operational level and at the academic level.

CONCLUSION

The world today can be said to be a global village in the Information Technology era. While the big companies are expanding their business opportunities the CSR activities are also expanding speedily. Merely initiating CSR is not enough; the company has to work hard on a formal coherent and transparent policy in the field of CSR to become a potential area for development of the society. The concept of CSR is gaining more and more attention in recent times involving in its scope corporate magnates, educationists and social activists from all over the world. What we are therefore witnessing is greater commitment from business, either for improving the corporate image or for being competitive.

In terms of higher education universities have to cater to both the traditional and entrepreneurial role without limiting the purpose. The emergence of the new knowledge economy, has led to the transformation of the shape and base of the society. To keep pace in this competitive world it is essential for the evolution of innovative systems. The need is felt for a university system that emphasizes sustainable development and improvement of competencies of the population.

Modern public universities should be aware of the real necessity of updating any educational program according to societal requirements. By considering CSR as source of sustainable socioeconomic welfare, it has a great potential to contribute to marketing of university academic curricula. Collaborations between government, educational institutions and corporate will accelerate educational reform and thus bring about the desired social development. The government must attempt to keep pace with the international developments, particularly with reference to IT and E Commerce. The people have to be made computer savvy and the beginning has to be made at the grass root level.

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INDIGENOUS STORAGE STRUCTURES AND PRACTICES: A REVIEW

Pallavi R
Research Scholar, Department of Botany,
Sahyadri Science College, Kuvempu University, Shimoga, Karnataka.

Rajeshwari N
Research Guide, Department of Botany,
Sahyadri Science College, Kuvempu University, Shimoga, Karnataka.

Ramesh Babu H.N.
Department of Botany,
Sahyadri Science College, Kuvempu University, Shimoga, Karnataka.

ABSTRACT

Agriculture provides a living for a substantial section of the world's population. The indigenous way of farming crops relies on locally accessible resources without the use of external inputs. Storage is an important practice in the control of the physiological quality of the seed, and it is a method for preserving the viability of the seeds and maintaining their vigour between planting and harvesting. Grain storage is critical in reducing losses caused mostly by insect pests, diseases. The traditional grain storage structures are generally made up of locally available materials and used for shorter period of time. Modern grain storage structures have been established in the modern age for storing and preserving large volumes of grain for a long period of time. Some of the common traditional practices followed are reviewed in this paper.
Keywords: *Agriculture, Storage Structures, Storage Practices*

INTRODUCTION

Agriculture provides a living for a substantial section of the world's population. Farmers explored indigenous knowledge through their own experiences and experimenting to fulfill their requirements. These farmers have been involved in agriculture from ancient times. Farmers explored the need of managing soil, water, weed control, insect pest control. Farmers are experimenting with locally accessible alternatives in order to solve the situation. Farmers have demonstrated their ability to develop new technologies in areas such as soil conservation, plant spacing, intercropping, pest and disease control (Bunch R, 1989). Traditional farming is an ecological based age-old farming technique formed by ancient farmers through generations of interaction with the environment and natural resources for consumption, fodder, and fabrics (Karthikeyan et al., 2009). The indigenous way of farming crops relies on locally accessible resources without the use of external inputs. Because of technological developments, India's grain production has constantly increased, but post-harvest loss has remained steady at 10%. Because suitable storage facilities are not available, losses during storage account for approximately 6% of overall losses. Grain storage is critical in reducing losses caused mostly by insect pests, diseases, and rodents (Prakash et. al., 2016). Storage is an important practice in the control of the physiological quality of the seed, and it is a method for preserving the viability of the seeds and maintaining their vigour between planting and harvesting. Seed storage is the preservation of viable seed from the time it is collected in the agricultural field until it is needed for sowing, consumption, or another purpose. Annually, India produces approximately 259.32 million tons of food grains. Farmers store 60-70% of food grains for their own uses (Prakash et al., 2016). Storage is done to satisfy the needs for food and seeds

between harvests and during natural disasters such as drought, malnutrition, and war. A vast variety of insects and pests attack food grain. Although insect and rodent losses account for as much as 25 % of annual losses of food grains stored in godowns in India, insect infestation alone contributes to five million metric tonnes. Seed viability may be influenced by the seed storage period since seed vitality decreases directly proportional to time. Farmers in India prefer to store food grains in traditional ways, in various types of storage structures constructed from locally available materials. Large farmer store food grains in the government storage facilities such as the Food Corporation of India (Prashant and Rama, 2014).

Traditional Seed Storage structures

Seed storage is an important process in maintaining the viability and vigour of the seeds during storage period. Different storage structures are available based on types of seed storage. The traditional storage structures are ranging from bamboo baskets to gunny bags (Karthikeyan C et.al., 2007). Storage structures are generally made up of locally available materials:

KANAJA

Kanaja is a traditional storage structure made of bamboo (Figure: 1).This will be in a cylindrical shape and whose height may vary based on the quantity of grains. The Kanaja has a large inlet where the grains will be poured and a small outlet where the grains will be taken out without opening the lid. The upper lid and wall of the Kanaja will be plastered with a mixture of mud and cow dung to prevent insect attachment and it will also prevent spillage of grains. More than one type of grain can be stored in Kanaja, which has two or more partitions. The storage system is balanced on many stands or on a foundation built from wooden planks, stones, bricks, or other materials, at a height of nearly 12 inches above ground level to avoid soil moisture migration into storage grains (Naik SN et. al., 2011). This structure is commonly used for paddy, groundnut etc (Shobha N et al.,2006).

SANDAKA

Wooden boxes are made to store food grains. The boxes are known as pettige or sandaka (Figure: 2). They have a capacity of three or twelve quintals. Generally smaller quantity of grains will be stored and these grains used for consumption purpose. A big door type lid is made on the box and a small outlet will be made to take grains from sandaka. The box will also have partition, so that different types of grains can be stored in one box only. Legs will be fixed to sandaka to keep it away from the ground level which protects it from moisture present in the land. (Shobha N, et al.,2006).

KOTHI

Kothi is a traditional, small-capacity structure which is commonly utilized in rural communities in India (Figure: 3). It is constructed in a cylindrical shape with different sizes for storing grains ranging from 1 to 50 tonnes. Kothi has a large door for pouring food grain inside the storage bin and a tiny outlet for removing the grains. Kothi is often made with burnt clay, straw, and cow dung. It is commonly used to store jowar and paddy (Naik S N, et.al., 2011) (Dhaliwal RK, et al., 2010)

Earthen Pots

Earthen pots are widely used in rural areas of South Asian countries such as India, Bangladesh, Pakistan, and Nepal. Small amounts of food grains are kept for shorter periods of time. Earthen pots are made of burned clay and come in a variety of shapes and sizes. To prevent moisture or air migration, the pots' mouths have been sealed with mud, cow dung, or a combination of the two. Starting at ground level, earthen pots have been stacked one on top of the other vertically (Figure: 4). This storage structure's arrangement is also known as Dokal (Channal G, et.al., 2004). In Uttar Pradesh, Bihar, Uttarakhand, Jharkhand, and Madhya Pradesh, it is also known as Mataka. It is also called as paanai or addukkupaanai in southern India.(Karthikeyen C, et.al., 2009) (Kiruba, S, 2006)

Gummi

The gummi is a form of outdoor storage structure which is round or hexagonal in shape. Generally constructed with bamboo strips or reeds and covered with mud after construction to prevent connection with the natural surroundings. The entire construction is one meter above the ground to prevent moisture flow from the ground towards the stored grains, and the structure's base is built of reeds or stone slabs (Figure: 5) (Channal G, et.al., 2004).

Hagevu

This is an underground building used to store grain. It is a basic, dug-out hole filled with straw sticks close to the structure's walls to prevent moisture damage. In other cases, hagevu is constructed with stones as an inside construction (Figure:6). The grains are completely filled, coated with a thick layer of paddy straw, and sealed with mud plaster. In some circumstances, a small square or circular aperture is provided at the top. Grains can be stored for a longer period of time without being harmed by insects or mould. This storage structure is suited for dry agro climatic zones with low soil moisture levels. This is where the majority of the Jowar is kept (Shobha N, et al., 2006)

Obeh

Obeh is a traditional storage structure that is mostly used by poor farmers to store unthreshed rice. These structures are built of bamboo sticks that are tightly connected to form an airtight chamber for storing grains. In appearance, the structure resembles an oval-shaped storage platform with a square bottom that narrows on top (Figure: 7). The capacity ranges between 5 and 10 tonnes. A removable roof allows for loading and unloading (Adesina Jacobs Mobolade et al., 2019).

Bukhari

Bukhari is constructed from mud, bricks, and cement. Generally, it is constructed in a square shape (Karthikeyen C, et.al., 2009). The walls and floor of Bukhari were built of timber or bamboo strips. The conical-shaped roof is composed of straw or bamboo (Sahay MK, et.al., 2009) Bukhari is protected from moisture using a polythene layer, and proper sealing will be done with mud. When necessary, a wide exit at the bottom is provided to get out the grains (Figure: 8). According to some thorough studies, farmers spread a layer of sand before storing wheat grains, which functions as a key barrier to protect the food grains from insect pests to some level (Dhaliwal RK, et.al.,2010). The capacity of food grain storage ranges from 3.5 to 18 tonnes. A second layer of bamboo strips was used to build improved structures, and the gap between the two layers of bamboo strips was filled with mud to strengthen the structure. To prevent leaking during the rainy season, the conical-shaped roof has been plastered with a 4-5 cm thick mud layer (Sahay MK, et.al., 2009).

Bharola

Bharola is a traditional cylindrical storage structure built of mud that is easily transportable due to its lightweight and tiny capacity of 40-80 kg (Dhaliwal, R. K., et al., 2010). It is frequently used for storing food grains for daily consumption in Panjab, Haryana, and other northern areas of India, as well as the Sindh region of Pakistan. Bharola is often built in a spherical shape with one round opening at the top that can be utilized for both pouring and collecting the stored grain. (Figure: 9)

Kupp

Kupp is an indigenous storage structure used on agricultural lands for preserving food grains (Figure: 10). It has a conical shape with a large circular base for further stability. Bamboo splits or thin hardwood sticks were joined together with jute or paddy straw rope to construct a spherical base and conical top. It is temporary storage for a limited time. To keep rain, direct sunshine, and air out, Kupp has only one hole at the top, which should be covered with a thick layer of paddy straw, crop leftovers, bamboo splits, and cotton sticks (Dhaliwal RK et al., 2010)

Kodambae

It is a traditional storage frequency used in South Asian places, mainly in India. Tamilnadu, southern Andhra Pradesh, and Telangana. Locally accessible materials such as dirt, clay, and mud created by combining cow manure with soil were used to construct a round wall up to 3 feet high, roughly 0.5-0.7 foot-high platform from the ground made with a mixture of soil and clay, stones, bricks, and other structures. It has a conical-shaped roof composed of natural materials such as paddy straw, palm leaves, and wooden or bamboo poles stitched with jute or paddy straw rope. Bricks, cement, stones, and sand are utilized at times to build a wall and a base to support the storage construction (Karthikeyen C, et.al., 2009). One small door has been constructed for loading and unloading the grains in this structure, through which one person can easily go inside with the help of a ladder (Figure: 11).

Mud House

For a long time, it has been a usual grain storage structure in rural areas of India and other parts of Southern Asia. It is classified as an internal, temporary, and small-capacity storage structure (Figure: 12). The walls of this construction are built with mud bricks and plastered with cow dung before being covered with planks made of wood or bamboo, also known as Mankattai in Tamil Nadu (Kiruba, S, et.al., 2006).

Earthen Bin

The traditional storage structure The Earthen bin, usually stored inside the home, is used for grain storage of up to two quintals (Figure: 13). It has a cylindrical shape with a narrow bottom and a larger portion, a thin neck-like hole for pouring grain, and a small opening at the bottom for grain removal. After pouring grain, close the top and bottom openings with mud, clothing, straw, and so on. It is also known as Kulukkai in Tamilnadu. It is generally used to store paddy, black gram and millets (Kiruba, S., et.al., 2006).

Straw Bin

A straw bin is a small-capacity indigenous storage structure built of straws, generally paddy straw, which is used to store grains. On the ground, a long, twisted rope made up of paddy straw was tied in a circular layout. A thick base is created from locally available crop residues such as palm leaves and hatches, jute and coconut tree wastes, long grasses, paddy straw, and so on (Figure: 14). It is also known as Thallpai in the Tamil Nadu region, where it is often built in a tiny size for storing seed and maintained by suspending with the roof. This is described as a temporary and low-cost storage building that is common in rural areas of Asian countries such as India, Pakistan, Bangladesh, and Nepal (Kiruba S, et.al., 2006).

Palmyra Leaf Bin

Palmyra leaf is used for creating the storage structure. Which is commonly used for short-term storage in India's southern areas. It's produced by stitching palmyra leaves together, has a cylindrical shape, a storage compartment, and is covered (Figure: 15). The most usual dimensions were 2.5-3 metres in height, 1 metre in width, and 2 metres in length. However, the size may vary depending on the needs (Kiruba S, et.al., 2006).

Modern Storage Structures

Storage of various food grains demands a scientific and modern technique because all grains contain biological activity and respiration, which is why they were quickly impacted by multiple insect pests (Mehrotra et.al., 1987). Many modern grain storage structures have been established in the modern age for storing and preserving large volumes of grain for a long period of time, which are typically used in different grain processing enterprises, food corporations in India, grain mills, and whole sellers. Modern storage structures, which have supplanted traditional storage structures, facilitate better grain storage for a long period of time without spoilage (Bogaard A et.al., 2009).

PAU Bin

Punjab Agricultural University invented the PAU bin, a storage structure made of galvanized iron sheet. The capacity varies between 1.5 and 15 quintals depending on the size of the recommended PUA bin (Acharya SS, et.al., 2009) (Figure: 16).

PP woven bags

These bags are made of plastic, polythene-woven fabrics, or a combination of the two (Figure: 17). Polythene bags are commonly used for grain packaging, and they are an important alternative to traditional jute bags. A polythene bag can be reused 12 times with proper care. They are less expensive than jute bags but more difficult to handle. Because of their slick surface, they cannot be placed extremely high. Polyethylene and polyester are the most often utilized materials for such bags. These bags are not waterproof, but they are moisture-resistant. They decay quickly when exposed to sunshine, thus they should be kept out of direct sunlight. They are challenging to stack since the bags tend to slide and fall down (Alice RP, et al.,2014).

Pusa Bin

A pusa bin is a modern small-scale storage structure built from mud or bricks with polythene sheets used to guarantee proper sealing within the structure's wall. An Indian agricultural research institute established the concept of push bins (Figure: 18). Polythene sheets were placed between the bricks or mud layers to provide sufficient sealing and a moisture barrier (Acharya SS, et.al., 2009). The Pusa bins were built on a mud-brick base which was covered with a 700-gauge plastic sheet to preserve the grain safe. As a result, it is often referred to as a low-density polyethylene storage structure (Sahay MK, et.al., 2009) (Said P, et.al., 2014).

Hapur Tekka

Hapur tekka is cylindrical in shape and is built locally on the foundation of a metal tube using bamboo. Bamboo has been replaced with galvanised iron or aluminium sheets for increased durability. Grain has been extracted through the little circular or rectangular outlet given at the structure's bottom. The Indian Grain Storage Institute, which is located in Hapur, has created a Hapur tekka for safely storing food grain. Hapur tekka usually holds grains weighing 2 to 10 tonnes (Acharya SS, et.al., 2009) (Said PP, et.al., 2014).

Modified Domestic Bricks or Cement Bins

Modern clay bins are cylindrical in shape and are frequently utilized for storing food grains for domestic consumption. The materials used for construction are burnt bricks, concrete, alkaline sheets, and so on (Figure: 19). They were employed to create sturdy, moisture and air-tight structure, helping food to be preserved for an extended length of time without deterioration in quality (Mehrotra SN, et.al., 1987).

Coal-Tar Drum or Bin

India's Central Institute of Agricultural Engineering has created a grain storage structure out of coal tar. It is classified as low cost, limited storage capacity, and long-term storage structures (Said PP, et.al., 2014) (Figure: 20).

Cement Wall Bin

Rectangular-shaped storage buildings made of cement, bricks, sand, and stones, with the side walls and base made of wood. After the construction of the structure, the inside and outside walls are thoroughly plastered to produce a smooth wall surface that prevents rodent movement and termite action. The most commonly used measurements for this construction are 2.43 m in length, 1.82 m in width, and 2 m in height, but this varies depending on the amount of grain to be preserved (Karthikeyen C, et.al., 2009). This type of structures widely used in Southern part of India and also called as Kalangiyam in Tamilnadu.

Granary Room

A granary room is an interior, permanent, and modern storage building built with concrete, bricks, sand, and cement inside the house (in rooms, kitchens, store rooms, and

so on). A granary is constructed by placing a concrete or brick slab slightly over the doorways of rooms or in a corner of the wall beneath the house's roof, with one tiny entrance for convenient grain handling (Karthikeyen C, et.al., 2009) (Figure: 21)

Semi Underground Bin

A semi-underground bin is semi-spherical in shape, with roughly half of it below ground and half above ground, and it is used for storing food grains (Figure: 22). The semi-spherical bottom shape of the construction, which lies below the ground, provides the bin with strong support, and its main benefit is that the bin is considered to be cast-in-situ and does not require additional floor space in the room (Mehrotra SN, 1987).

Cover and Plinth storage (CAPS) structure

The cover and plinth storage structure is built with wooden crates that are attached into the grooves of brick pillars, and the first stack is nearly 1.17 feet above the ground. The stack was placed vertically on the wooden boxes before being covered on all sides with 250-micron low-density polyethylene (LDPE) sheets (Figure: 23). The CAPS structure is ideal for keeping many types of food grains such as cereals, pulses, and millets for up to a year (Karthikeyen, C., et.al., 2009). The Food Corporation of India (FCI) is widely utilized as a storage building for bagged grain since it is the most cost-effective and can be built in three weeks. This building can inexpensively store a big volume of grain (Naik SN, et. al., 2011). This storage structure's cover is rectangular in shape and constructed of polythene sheet, which has been opened from the bottom and is used to cover organized sacks (Sahay MK, et.al., 2009).

Crib

The crib is an improvement on the platform structure, which is an enclosed, rectangular structure with ventilation that is raised between 0.5 and 1 m above the ground and supported by columns. This storage structure is very easy to construct. The storage structure will consist of wire mesh, metal, bamboo, or wood, with an iron sheet or straw roof. Because of the open movement of air, the crib's design ensures that the drying process continues while it is being stored and there is a barrier for the rat called Rat barrier (Figure: 24). The crib was originally used to store unthreshed maize cobs, but it is now utilized for almost a wide variety of crops. Without the use of insecticides, maize types with husks are actually well protected for three to six months (Adesina Jacobs Mobolade et al., 2019).

Silo

Silos can be made of metal or concrete, however, metal silos are more cost-effective than concrete silos (Figure: 25). This storage structure can hold around 25 thousand tonnes of food grain, and in the case of large silos, loading and unloading can be done with the help of lifts and conveyors. Silos or bins are typically cylindrical in the middle, with a conical top where the augur revolves to circulate the grains and prevent hot areas. Silos are considered an advanced structure that demands the use of current techniques and accessories in order to maintain the quality of food grain during storage (Minjinyawa Y et.al., 2010). Construction of metal and concrete silos started in Europe and the United States because these types of storage structures were suited to the climatic conditions of temperate regions because proper ventilation arrangements were provided for cooling the grains during the low-temperature season, but these types of structures were not advised in warm climatic regions to avoid condensation and humidity effects, which caused the destruction of stored grains (Donahaye J, et.al., 1997), (Kimatu et.al., 2012) discovered that weevils are responsible for more than 30% of overall post-harvest losses in traditional storage facilities. As a result, the Food and Agriculture Organization (FAO) has begun the construction of metal silos that can protect stored food grain from insects and pests and extend storage time. Metal silos are effective at storing food grain for a longer duration of time due to controlled respiration, moisture content, and other factors, and they promote unfavorable conditions for several insect-pest growths (Holscher K. 2000).

Warehouse

Warehouses are used for scientifically storing large amounts of food grain for long periods of time (Figure: 26). Food grains can be stored properly in a warehouse without experiencing significant qualitative or quantitative losses. Farmers maintain agricultural products in warehouses before exporting them somewhere else. Around 20 to 30% of losses occur between harvesting and commercial trading (Anil Kumar TN et.al.,2018). Several government institutions, such as the Central Warehouse Corporation, the State Warehouse Corporation, the Food Corporation of India, and industries, have built their own warehouses to store large amounts of food grain for extended periods of time. The food grain can be stored in bags or in bulk at the warehouse. It can store a large volume of grain under one roof, helping it to transport or export a large number of food grain as necessary. The warehouse is built with bricks, concrete, cement, and metals, and the foundation floor is always kept at about 0.45 to 1 metre above ground level, preventing rodents from entering usually. Wooden pallets are used within the building to stalk the grain sacks, avoiding moisture migration from the floor to the edible grain. Appropriate protective facilities, such as effective door sealing, inspection door maintenance, ventilation management, and so on, have been essential. In 1995, the government of India established the Central Warehouse Corporation to store huge amounts of harvested food grain, which provides storage facilities for 120 agricultural items with appropriate quality and hygiene requirements (Naik SN, et. al., 2011). According to the Indian government, the Central Warehousing Corporation is the country's largest public-controlled food grain storage system, providing services such as warehouse cleaning, handling, transportation, procurement, distribution, insect-pest disinfection, and other quality control aspects. A state warehousing corporation has been established for every state to store its food grains. Different districts of an Indian state have state warehouses for bulk storage of food grains from a specific area, and the amount of grains had in every state's warehouse is accounted for as part of the state's total at the Indian level. The Food Corporation of India (FCI) is building large-capacity storage facilities, known as godowns, with the highest food grain storage capacity in India, estimated to be around 26.61 million tonnes. The location of grain storage, cleaning and fumigation facilities, and inspection of grain quality at regular intervals are all critical for adequate grain storage. Temperature, moisture content of stored grain, proper fumigation, storage time, and other factors all contribute to the proliferation of certain pests. *Callosobrunchus* spp., *Trogoderma granarium, Tribolium confusum* (beetles), and *Acanthoscel idesobtectus* (weevils) are the most prevalent pests that cause damage to stored food grain (Karthikeyen C, et.al., 2009), (Naik SN, et. al., 2011).

Hermetic Storage

Hermetic storage has grown in popularity in a number of countries, including Ghana, the Philippines, Rwanda, Sri Lanka, and Sudan. Bunkers are massive hermetic storage structures that were extensively utilized in the later decades of the twentieth century and built with capacities ranging from 10 to 30 thousand tonnes. According to Donahaye et al., hermetic bunkers can store wheat with a moisture level of 12.5% for four years without degrading (Donahaye et al., 1997). Hermetic storage containers are extremely effective at protecting food grain and reducing losses by up to 0.15% and also increasing shelf life by preventing moulds and other microorganisms This storage system was designed to be airtight and sealed, as well as to create carbon dioxide enrichment and a low-oxygen atmosphere (Navarro S, et.al.,1984), (Villers P, et.al.,2006), (Weinberg ZG, et al.,2008).(Figure: 27).

INDIGENOUS STORAGE PRACTICES

Common salt

Farmers utilized common salt in grain storage because of their local knowledge. They had used a simple element, table salt, for storing purposes in their home. In the storage of red gram *(Cajanus cajan)* grain, common salt is utilized. They had used regular

salt to store grains at home. Approximately 200 grams of salt were manually combined with 1 kg of red-gram grains in this study. These treated grains were subsequently stored in jute gunny bags, and no insect attack was observed. This procedure is utilized for a shorter time span of roughly 8 months. Farmers have noticed that salt makes insects move harder, and salt has an abrasive effect on insects. This is a low-cost, somewhat successful storage method (Natarajan et al., 2006). Paddy grains were preserved for one to two years after they were immersed in a 1:10 ratio of salt water and set aside. After an hour, floating light and fluffy grains were removed, floating hard grains were removed, and hard grains that settled down were dried in the shade. When salt is added to water, it becomes denser which assists in the separation of light and chaffy grains (Johnston et al., 1978). Farmers preserved tamarind by combining it with salt. After harvest, tamarind was separated from its pods and preserved in layers inside earthen pots. Farmwomen traditionally put salt between the tamarind layers. Approximately 10 grams of salt were used per kg of tamarind for this practice. Storage pests like beetles and Indian meal moths were kept at a distance. The salt also helps to loosen the tamarind flesh, making it simpler to work with (Karthikeyan et al., 2009).

Ash

For storage, ash was combined with grains. According to Sashidhar et al., ash was combined with sorghum seeds. The ash is mixed at 1:4 and then packed in airtight bags. Farmers continue to believe that ash treatment can reduce these losses by up to 80%. Rice weevils (*Sitophius oryzae*), rodents (*Tatera indica*), and mites (*Oligonychus indica*) are among the storage pests for sorghum. Farmers, on the other hand, stored sorghum for roughly 6 months after utilizing ash without any storage pest concerns (Sashidhar et al., 1992). In an earthen pot, maize grains were preserved on a layer of ash and covered with another layer of ash. Then another pot was placed on top, and cow dung was coated to seal it off. Because seeds cannot absorb moisture from the outside, the insects inside the seed will suffocate and die, and the seed can be stored for a longer period of time (Wambugu et al., 2009).

Lime

Lime water was used to cure sorghum grains. One kilogram of lime was dissolved in ten liters of water and stored for ten days. The top layer of water was collected, and the seeds were immersed in it overnight. Before planting, the seeds were dried in the shade. Lime, also known as calcium hydroxide, has been shown to protect seeds from seed-borne diseases like smut and bunt (Smith et.al., 1976). Farmers have traditionally stored pulse grains together with lime powder. Farmers utilized around 10 g of lime per kg of grain in this practice. They were preserved in jute bags after being mixed. The lime had the ability to create an unpleasant scent that repelled insects and prevented grain damage. Grains could be preserved in this way for up to a year (Karthikeyan et al., 2009).

Cow dung powder and cow urine

Before planting, the seeds were treated with dried cow dung powder and cow urine. For each kg of seed, roughly 100 g of cow dung powder and 250 ml of cow urine were employed to improve germination (Kundu et al., 1993). Cow dung powder was also used to store seeds. Cow urine includes 2.5% urea, which is known to interfere with dormancy and enhance germination. Cow dung powder protects the seed from dampness and hence increases its lifetime. Cow dung was utilized in ancient times to cure seeds along with ghee and honey (Nene 2002).

Sheep manure

The seeds were soaked in water overnight and then dried in the shade before being placed in a pit with tree dust and sheep manure. The pit had been made airtight. Keeping seeds and sheep manure in an airtight container generates heat inside the pit, which is essential for germination to start (Gashaw and Michelsen,2002).

Plant extract

Ragi was stored using neem (*Azadirachta indica*) leaves by farmers. Neem leaves are inexpensive and widely available. Farmers used this method to eliminate storage insects rather than costly chemical treatments. The strong scent of neem leaves keeps storage insects away from the grains. Neem leaves are effective organic repellents that are safe to use. Horse gram seeds are stored in a sealed container with plant dust. Horse gram dust is believed to absorb excess moisture in the seeds, facilitating for longer storage. Before seeding, dust and seeds are separated. Chickpea, pigeon pea, and green gram grains were preserved with *Pongamia pinnata* leaves. The strong fragrance of these leaves repels storage insects, and sowing grains were separated by these leaf extracts. Mint leaves or sweet flag root powder were used to keep the seeds. The sweet flag's powerful odor repels storage insects. Farmwomen used an indigenous method of keeping ground nut oil in which tamarind was placed in the oil storage container. About 1/4 kg of tamarind was placed inside the oil container to store 5 L of ground nut oil. The container's mouth was tightly sealed with cotton fabric. Some farmers used tamarind to close the container. This practice decreased oil deterioration and kept the oil fresh for 6-12 months (Karthikeyan et al., 2009).

Traditional Storage Structures

Figure: 1   Kanaja

Figure:2   Sandaka

Figure: 3   Kothi

Figure: 4 Earthen Pot

Figure: 5   Gummi

Figure: 6 Hagevu

Figure : 7   Obeh
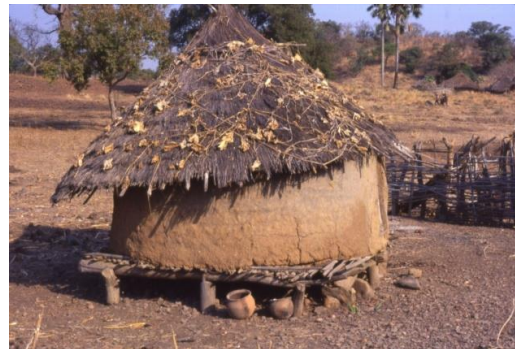
Figure: 8   Bukhari

Figure : 9   Bharola

Figure: 10 Kupp

Figure : 11   Kodambae

Figure : 12 Mud house

Figure: 13 - Earthen Bin

Figure : 14   Straw Bin

Figure : 15   Palmyra leaf bin

Modern storage structures

Figure : 16   PUA bin

Figure: 17 PP Woven bag
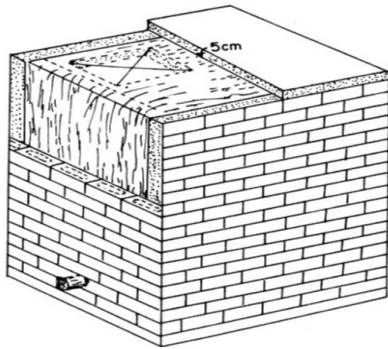
Figure : 18 Pusa Bin

Figure : 19 Cement Bins

Figure : 20 Coal Tar Drum or Bin

Figure : 21   Granary Room

Figure : 22 Semi Underground Bin

Figure: 23 CAP storage
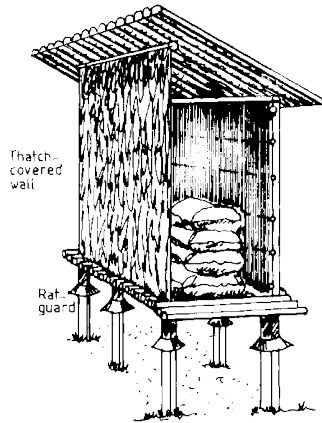
Figure : 24 Crib

Figure: 25   silos

Figure : 26   Warehouse

Figure : 27   Hermetic Storage

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ETHICS IN TEACHING AND LEARNING PRACTICES IN INDIAN EDUCATION

Dr. Prakash
Assistant Professor
Shree Kumareshwar College of Education, Hangal

ABSTRACT

Ethics in teaching and learning are fundamental to fostering a conducive environment for holistic development and social progress within the Indian education system. This abstract delves into the significance of ethical conduct in education, outlining key principles, challenges, and strategies to promote ethical teaching and learning practices. The abstract emphasizes the importance of integrity, respect, fairness, professionalism, and accountability as core principles guiding ethical behavior in education. It highlights the challenges faced in upholding these principles, including lack of awareness, pressure to perform, resource constraints, and cultural factors. Furthermore, the abstract presents strategies to address these challenges, such as integrating ethics education into teacher training programs, establishing clear institutional policies, providing professional development opportunities, engaging communities, and leveraging technology solutions. Ultimately, by fostering a culture of ethics in teaching and learning, India can cultivate responsible citizens equipped with integrity, wisdom, and the ability to contribute positively to society.

Keywords: *Ethics, Teaching, Learning, Indian education, Integrity, Respect, Fairness, Professionalism, Accountability, Challenges.*

Introduction:

Ethics in teaching and learning is the cornerstone of a robust education system, ensuring the holistic development of students and the cultivation of a responsible citizenry. In the Indian educational landscape, the adherence to ethical principles is paramount to fostering an environment conducive to learning, growth, and social progress. This article explores the significance of ethics in teaching and learning practices within the Indian context, highlighting key principles, challenges, and strategies to promote ethical conduct in education.

Ethics in teaching and learning form the bedrock of a robust and morally upright educational system, serving as the guiding principles that shape the interactions between educators and learners in India. In the rich tapestry of Indian education, adherence to ethical standards is not merely a desirable trait but an essential aspect that underpins the development of individuals and the advancement of society. This introduction seeks to explore the significance of ethics in teaching and learning within the context of Indian education, shedding light on its foundational principles, contemporary challenges, and the imperative for promoting ethical conduct in educational practices.

Significance of Ethics in Teaching and Learning: Ethics in teaching and learning encapsulate a multifaceted set of values and principles that dictate the conduct of educators and learners alike. It embodies the ideals of honesty, integrity, respect, fairness, and accountability, which are essential for nurturing a healthy learning environment and facilitating the holistic development of students. In the Indian cultural milieu, where the pursuit of knowledge is revered and the teacher-student relationship is deeply revered, ethical conduct assumes heightened importance as it not only shapes academic outcomes but also molds character and instills moral values in the next generation.

Foundational Principles: At the heart of ethical teaching and learning lie several foundational principles that serve as guiding lights for educators and learners. Integrity stands as the cornerstone, emphasizing the importance of honesty, transparency, and

authenticity in the dissemination and acquisition of knowledge. Respect underscores the need for mutual regard and appreciation for diverse perspectives, fostering inclusivity and empathy within the educational ecosystem. Fairness demands equitable treatment for all learners, irrespective of their backgrounds or abilities, ensuring equal opportunities for growth and development. Professionalism dictates the adherence to ethical standards of conduct, professionalism, and competence, safeguarding the integrity of the educational profession. Accountability necessitates taking responsibility for one's actions and decisions, promoting a culture of transparency, self-reflection, and continuous improvement.

Contemporary Challenges: Despite the noble ideals espoused by ethical teaching and learning, the contemporary educational landscape in India is beset with several challenges that impede their realization. These challenges range from systemic issues such as the lack of awareness and resources to cultural factors and societal pressures that undermine ethical conduct. Educators may grapple with the pressure to achieve academic outcomes, leading to instances of cheating, favouritism, or unethical practices. Additionally, the proliferation of technology and digital resources has posed new challenges in maintaining academic integrity and preventing plagiarism.

Imperative for Promoting Ethical Conduct: In light of these challenges, there is an urgent imperative to promote ethical conduct in teaching and learning practices within Indian education. Upholding ethical standards not only ensures the integrity of the educational process but also cultivates responsible citizens who embody values of honesty, integrity, and social responsibility. By fostering a culture of ethics, educational institutions can nurture environments where students feel safe, respected, and empowered to explore knowledge and ideas freely.

Understanding Ethics in Teaching and Learning:

Ethics in teaching and learning encompasses a broad spectrum of principles and values that guide educators, students, and educational institutions towards moral conduct, integrity, and accountability. It involves the cultivation of honesty, respect, fairness, and responsibility in all aspects of the educational process. Ethical teaching emphasizes the importance of imparting knowledge with integrity, while ethical learning emphasizes the acquisition of knowledge with honesty and diligence.

Integrity: Educators uphold honesty and transparency in their teaching practices, avoiding plagiarism, fabrication, and falsification of information.

Respect: Teachers demonstrate respect for students' diversity, opinions, and backgrounds, fostering an inclusive and supportive learning environment.

Fairness: Educators ensure equitable treatment of all students, providing equal opportunities for learning and growth regardless of socio-economic status, gender, or ethnicity.

Professionalism: Teachers adhere to professional standards of conduct, maintaining confidentiality, and avoiding conflicts of interest.

Accountability: Educators take responsibility for their actions and decisions, reflecting on their teaching practices and continuously striving for improvement.

Challenges in Promoting Ethical Practices:

While ethical teaching and learning are fundamental to the educational process, several challenges hinder their effective implementation in the Indian education system. These challenges include:

Lack of Awareness: Many educators and students may not be fully aware of ethical principles or their importance in education.

Pressure to Perform: Educators may face pressure to achieve academic targets or meet expectations, leading to unethical practices such as cheating or favoritism.

Resource Constraints: Limited resources, infrastructure, and support systems can strain ethical practices within educational institutions.

Cultural Factors: Cultural norms and values may influence perceptions of academic integrity and ethical behavior, posing challenges to universal standards.

Strategies for Promoting Ethical Conduct:

Addressing these challenges requires a concerted effort from educators, policymakers, and stakeholders to foster a culture of ethics in teaching and learning. Strategies to promote ethical conduct include:

Educational Initiatives: Integrate ethics education into teacher training programs and curricula to raise awareness and cultivate ethical values among educators and students.

Institutional Policies: Establish clear policies and guidelines for academic integrity, plagiarism prevention, and ethical behavior within educational institutions.

Professional Development: Provide ongoing professional development opportunities for educators to enhance their understanding of ethical principles and teaching practices.

Community Engagement: Engage parents, communities, and civil society organizations in promoting ethical behavior and accountability within the education system.

Technology Solutions: Leverage technology to implement plagiarism detection tools, online ethics training modules, and academic integrity frameworks to monitor and uphold ethical standards.

Conclusion: Ethics in teaching and learning is indispensable for fostering a culture of integrity, excellence, and social responsibility in Indian education. By upholding key principles such as integrity, respect, fairness, professionalism, and accountability, educators and educational institutions can nurture ethical behavior, empower students, and contribute to the advancement of society. Through collaborative efforts and strategic interventions, India can build a robust educational ecosystem that upholds ethical standards and prepares future generations to navigate the complexities of the modern world with integrity and wisdom.

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BENEFITS OF YOGA IN PHYSICAL EDUCATION AND SPORTS

Dr. Praveena A
Physical Education Director,
Government First Grade College, Hosamane, Bhadravathi, Shivamogga

Pruthvi H V
Student Teacher, University of Mysore,
Srirangapattana, Mysore,

ABSTRACT

Aim of the present article is the role of some yoga elements in physical education and sports. Yoga is one of the Indian philosophical systems that emphasize the importance of the work with the body to develop healthy behaviours and feelings. Among all its techniques the physical postures, called saunas in Sanskrit, are the ones that got. It is necessary to recall that sports and gymnastics belong to the scope of Physical Education. Once there was a time when people said "it is not the winning itself but the challenging nobly that really matters", when the place where competitions took place was sacrosanct and the respect between competitors was essential. In our modern society the term Physical Education has been understood in different ways. Some say it is the "education of the body", which is educating the body to achieve some skills and abilities as it is done, for example, in sports. Others think it is the "education to the body", which is working out only to improve one´s looks. Inopportunely, this is the main reason why people join gyms, especially before the summer. In fact, the expression Physical Education initially means "education through the body". It is using the work with the body as a plan to reach the noblest goals of education: independence and ethics in our relationships with each other and the environment. It is necessary to remember that sports and gymnastics belong to the scope of Physical Education. Once there was a time when people said "it is not the winning itself but the competing nobly that really matters", when the place where competitions took place was sacred and the respect between competitors was essential. Yoga and Physical Education in their origin use the body as a tool for developing attitudes and abilities that are important to achieve physical and mental health. These days they can be considered balancing of subjects. While the West developed the aerobic conditioning and the sports training and focused on its relationship with good heath, the East pursued the same goals through concentration and relaxation mood.

Keywords: *Yoga, exercise, science, physical education in schools, muscle,*

Introduction:

The word 'yoga' means "to join". It brings the body and mind together to become a harmonious experience. Man is a physical, mental and spiritual being; yoga helps promote a balanced development of all the three. Yoga is a method of learning that aims at balancing "Mind, Body and Spiritual". Yoga is a practice with historical origins in ancient Indian philosophy. Yoga is distinctly different from other kinds of exercise as it generates motion without causing strain and imbalances in the body. Other forms of physical exercises, like aerobics, assure only physical well-being. They have little to do with the development of the spiritual or astral body. Yogic exercises recharge the body with cosmic energy and facilitates. They have little to do with the development of the spiritual or astral body. Yogic exercises recharge the body with cosmic energy and facilitates

Benefits for Physical Education

Yoga is then commonly taken as a system of physical education with a spiritual component, while the truth is the back: Yoga is a divine system with a physical component.

The practice of asanas is yet only a small part of the complete system of Physical Culture & Education known as Hatha Yoga. Role of yoga in education from various angles, including the type of education that was being provided to children throughout the world as well as the different levels of stress that children face in the classroom environment. The difficulties, problems, conflicts, distractions and dissipation of their energies were also considered. We started using certain principles and practices of yoga, firstly, as an experiment to increase the children's learning ability and, secondly, to inspire teachers to teach their subjects in a slightly different way. Our belief was, and still is, that we are educating our children without considering or caring for the growth of their entire personality. We are cramming their brains and minds with information without creating any support group outside the classroom environment where they can continue to imbibe education. We have to look at what science says about the growth of a child, what psychoanalysis says about child psychology and how the hormones and glands alter and influence the rationality, emotional structure and creative output of the child.

Better to Brain

Every day after you wake up, the health of your body sets the tone for the day. Any ailment in the body can put a damper on your enthusiasm and become a hindrance in performing daily tasks. Many yoga asanas can help you stay physically healthy, but that's not the only prerequisite for holistic well-being. Your mental health is equally crucial.

Your brain plays a phenomenal role in carrying out daily tasks. Your ability to respond, comprehend, perceive and function well is related to the health of your brain.

Most of us do not realize that, like every other organ in the body, the brain needs nourishment and energy every day. Just as exercise keeps the body in good shape, brain exercises do the same for the intelligence powerhouse. Yoga asanas, in particular, aid in the better functioning of the human body.

Yoga in the Classroom: The system of educating children has to be different. It has to be combined with certain practices which can remove their psychological blocks, which can make them aware of the psychological changes that happen in their body and brain, which can make them aware of their own distractions and which can give them the ability to focus on the theme of the subject they are studying. So what did we do? We started with very simple yoga practices in the classroom environment, taking some hints from the work of RYE (Research on Yoga in Education) with children in Europe. In RYE schools the classes begin and end with the practice of two asanas and one pranayama. So if a child has to sit through six or eight classes during the day, he or she is practicing two asanas and one pranayama sixteen times each day at the beginning and at the end of each class. In Europe, the schools have a psychologist who monitors the performance, behavior and aptitude of the child and who tries to create a support group for the child in the home environment. When the children who were practicing yoga in the classroom were monitored, a marked improvement in their responses, creativity, receptivity, memory, willpower and behavior was found. The children were more relaxed, focused, one-pointed and tranquil than their counterparts in other classes who were not practicing yoga and who were more destructive, restless, violent and distracted.

Developing awareness and rapport

This also helps to bring in the concept of awareness. When I visit schools I often find teachers teaching the subject to the students without awareness. While the training is going on in the class, there is an absence of awareness. Students are taking down notes mechanically, whether they understand the subject or not. That is not the worry of the teachers. The students also know that the teacher is not concerned, so why should they bother? So, there is a gap in the relationship between student and teacher. That gap is a very crucial component which can build up the personality of the student, which is non-existent. However, if you incorporate some methods of concentration, then rapport develops as well as awareness.

Benefit for Sports

Sports can lead to injury because of its repetitive nature and the resulting musculoskeletal imbalances. On a physical level, yoga restores balance and symmetry to the body, making it the perfect complement to sports. Runners are often drawn to yoga to deal with specific issues, such as improving flexibility or helping with an injury. Yet many are shocked at the world it opens for them, specifically, the strengthening capacity and the use of muscles they never knew they had. Let's take a closer look at the effects of yoga, both physical and mental, on runners.

Physical Effects

As seen in the preceding definitions, yoga encompasses more than the mere physical postures. Nonetheless, the physicality of yoga is what draws most people to their first yoga class. The following summarizes the physical benefits that sports persons can expect from yoga.

Flexibility:

Many sports person cite greater flexibility as the number one reason for beginning a yoga practice. This is a good reason, because yoga stretches the muscles that are tight, which in turn increases the range of motion in related joints. Increased flexibility decreases stiffness, results in greater ease of movement, and reduces many nagging aches and pains.

Strength:

Like Runners are strong in ways that relate to running. However, a running stride involves only the lower body and movement in one plane sagittal (i.e., forward and backward). Thus, certain muscles become strong while others are underused and remain weak. Runners have strong legs for running, but when faced with holding a standing yoga pose, they are quite surprised to find that their legs feel like jelly. This is simply because a properly aligned yoga pose involves using all the muscles in a variety of planes. The muscles that are weak fatigue quickly, and those that are tight scream for release thus, the jelly-leg syndrome. Additionally, a by-product of becoming stronger is greater muscle tone. Yoga helps shape long, lean muscles that do not hinder free range of movement in joints.

Biomechanical Balance:

Overusing some muscles while under using others creates muscular imbalances, which affect the entire musculoskeletal balance and impairs biomechanical efficiency. For mostly sports persons, biomechanical imbalances eventually lead to pain and injury. Depending on the action, a muscle is either contracting (i.e., an agonist) or lengthening (i.e., an antagonist). For example, if you make a fist and lift your forearm, the biceps contracts while the triceps stretches. If you want showy biceps and do repeated biceps curls to pump up the muscle, the triceps will shorten and you could lose the ability to straighten your arm. A healthy balance is to work to both contract and stretch to maintain muscle equilibrium as well as functionality. For example, when stretching the hamstrings, the quadriceps need to contract. This coordinated action not only creates a deeper and safer hamstring stretch, but also provides an opportunity to strengthen the quadriceps, especially the inner quadriceps, which are weak in many runners. This is crucial for runners because the hamstrings most likely need lengthening while the commonly weak inner quads need strengthening. Every yoga pose is a balance of stability (muscles contracting and strengthening) and mobility (muscles stretching and lengthening). At no time is only one muscle group used. Even the simplest yoga pose requires an awakening of every part of the body. Downward dog is an exemplary pose to demonstrate this. Following is a summary of the major muscle actions in this fundamental pose.

Stability (Strength)

- Arms: hands, wrists, lower arms, triceps, deltoids
- Back: lower trapezius, serratus anterior
- Legs: quadriceps, tibialis anterior (front of shins)

Mobility (Flexibility)
- Arms: fingers, biceps
- Back: latissimus dorsi, paraspinals (both superficial and deep layers of back muscles)
- Legs: hamstrings, calves, Achilles tendon

A balanced yoga practice requires most of the muscles in the body to perform some action. At the same time, joints are taken through their full ranges of motion as the corresponding muscles contract or stretch to support the movement. The result is improved muscle balance, which translates to better form, stronger running, and fewer injuries.

An Energized Body:

Many forms of exercise deplete the body of its energy stores. Yet a yoga practice oxygenates the blood and creates more energy, leaving the body and mind feeling restored and energized. Yoga provides a vehicle through which the body can actively recover from the physical demands of running.

Improved Breathing:

Lung capacity is of prime importance for players, because it creates the ability to maintain an even breathing pattern through all phases of running. The better the lung capacity is, the more oxygen is circulated through the system, which is most helpful for running long and strong. However, the breathing pattern used in running and other forms of aerobic exercise involves quick and shallow inhalations and exhalations. This uses only the top portion of the lungs, leaving themiddle and lower portions untouched. Yogic breathing involves slow, deep inhalations and long exhalations, making use of the upper, middle, and lower portions of the lungs. Yogic breathing has been shown to increase lung capacity, and greater lung capacity increases endurance and improves overall athletic performance. In Sanskrit, prana means "energy," and yogic breathing is called pranayama. Through the breath, you bring in oxygen, feeding your cells and creating vital life force, and remove carbon dioxide, eliminating toxins. The use of the breath in yoga is vital. Whereas holding the breath creates internal tightness, tension, and anxiety, deep breathing releases tension, reduces stress and anxiety, and physically helps the body ease into poses, particularly those that are challenging. Through this conscious breathing, the body is energized as a result of increased oxygen circulation throughout all of its systems.

Conclusion

Yoga offers new learning possibilities to a wider group of students than traditional sports or fitness curriculum, making it a valuable addition to any educational program. Additionally, adding yoga to a school's curriculum will help provide a quality of physical education program as modification of traditional physical education yoga in sports as important as other think it helps us in different ways and different levels in a sports men life. Yoga can play a key role in cultivating mind control and concentration which helps a sports person to perform at their game. It offers children and adults an opportunity to experience success in physical activity, which can help build a foundation of strong of life. However, curriculum specialists, teachers, trainers and students should know and analyse seriously the real challenges of yoga education in classroom settings and real life as well.

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GLOBAL EMPOWERMENT THROUGH LANGUAGE MASTERY AND CULTURAL COMPETENCE IN HIGHER EDUCATION

Preksha
Research scholar, Department of Education,
Panjab University, Chandigarh,
Kataria.preksha@gmail.com

ABSTRACT

In today's interconnected world, higher education plays a pivotal role in preparing students for global citizenship and success. This study digs into the intricate relationship between language mastery, cultural competence and global empowerment within the higher education landscape. Through a quantitative lens, this study aims to empirically explore how proficiency in languages and cultural understanding contribute to individuals' sense of empowerment in a global context. Drawing upon a diverse sample of undergraduate and graduate students from various academic disciplines and geographical backgrounds, data was systematically collected using standardized measures. These measures assessed language proficiency levels, cultural awareness and perceptions of empowerment on a global scale. Rigorous statistical analyses, including correlation and regression techniques, were employed to elucidate the interplay between these variables and uncover underlying patterns. The results of the study illuminated compelling findings regarding the significance of language mastery and cultural competence in fostering global empowerment among students. Specifically, a strong positive correlation emerged between language proficiency and perceptions of empowerment, suggesting that individuals with higher language skills tend to feel more empowered in navigating global environments. Similarly, participants with greater cultural competence exhibited a heightened sense of empowerment, indicating the pivotal role of cultural understanding in promoting global engagement and agency. Regression analyses provided nuanced insights into the predictive power of language mastery and cultural competence on global empowerment, underscoring their pivotal role in shaping individuals' perceptions and experiences in diverse cultural settings. These findings hold profound implications for educational institutions and policymakers seeking to cultivate global citizenship among students. By emphasizing the importance of promoting linguistic diversity and intercultural competence within higher education curricula, institutions can empower students to thrive in an increasingly interconnected world. Fostering an inclusive and supportive learning environment that celebrates cultural differences can facilitate the development of critical skills necessary for effective global citizenship, such as empathy, communication and cross-cultural collaboration. The research underscores the integral role of language mastery and cultural competence in fostering global empowerment within higher education. By investing in initiatives that promote linguistic diversity and intercultural understanding, institutions can empower students to become active participants in shaping a more inclusive and interconnected global society.
***Keywords**- Language Mastery, Cultural Competence, Higher Education, Global Empowerment & Intercultural Communication.*

INTRODUCTION

In today's interconnected world, characterized by rapid globalization, technological advancements and cultural diversity, the role of higher education in preparing students for global citizenship and success has become increasingly vital (Banks, 2019). As individuals navigate a complex web of global interactions, the ability to communicate effectively across cultural and linguistic boundaries has emerged as a cornerstone skill for success in both professional and personal domains (Byram, 2008). Central to this preparation are language

mastery and cultural competence, which equip individuals with the tools and perspectives necessary to navigate diverse cultural landscapes, engage in meaningful cross-cultural interactions and contribute positively to global society (Gudykunst & Kim, 2017).

Language mastery encompasses proficiency in one or more languages beyond an individual's native tongue (Crystal, 2012). In an era where multilingualism is increasingly valued and celebrated, proficiency in additional languages opens doors to a myriad of opportunities, both academic and professional (Grosjean, 2010). Beyond mere communication, language proficiency enhances cognitive abilities, including problem-solving skills, memory retention and analytical thinking (Kroll & Bialystok, 2013). Moreover, multilingual individuals often exhibit greater cultural sensitivity and adaptability, as language and culture are intricately intertwined (Grosjean, 2010). By mastering multiple languages, individuals gain insights into diverse cultural perspectives, enabling them to navigate complex global contexts with ease and confidence (Byram, 2008). Cultural competence, meanwhile, refers to the ability to understand, appreciate and effectively interact with people from different cultural backgrounds (Bennett, 2013). In a world characterized by cultural diversity, cultural competence is essential for fostering inclusive environments, promoting cross-cultural understanding and mitigating intercultural conflicts (Bennett, 2013). Culturally competent individuals possess the knowledge, skills and attitudes necessary to navigate cultural differences sensitively and respectfully, thereby facilitating meaningful intercultural interactions and collaborations (Bennett, 2013). Moreover, cultural competence fosters empathy, tolerance and open-mindedness, qualities that are essential for effective global citizenship in an increasingly interconnected world (Gudykunst & Kim, 2017).

Together, language mastery and cultural competence form the foundation for global empowerment, enabling individuals to navigate and thrive in diverse cultural and linguistic landscapes (Byram, 2008). Empowered individuals possess the confidence, skills and attitudes necessary to engage meaningfully with global issues, advocate for positive social change and contribute to the advancement of global society (Banks, 2019). By equipping students with linguistic and cultural competencies, higher education institutions play a crucial role in fostering global citizenship and preparing students for success in an interconnected world (Byram, 2008). While the importance of language mastery and cultural competence in fostering global empowerment is widely acknowledged, empirical research examining their interrelationship within the context of higher education remains limited. This study seeks to address this gap by conducting a quantitative investigation into the correlation between language mastery, cultural competence and global empowerment among undergraduate and graduate students. Language mastery and cultural competence are indispensable components of global empowerment, enabling individuals to navigate and contribute to diverse cultural and linguistic landscapes with confidence and efficacy (Gudykunst & Kim, 2017). By fostering linguistic diversity, promoting cultural understanding and cultivating global perspectives within higher education, institutions can empower students to become agents of positive change in an increasingly interconnected and interdependent world (Byram, 2008).

SIGNIFICANCE OF THE STUDY

The significance of this study lay in its exploration of the intricate relationship between language mastery, cultural competence and global empowerment within the context of higher education. In today's interconnected world, individuals were increasingly required to navigate diverse cultural and linguistic landscapes. By investigating how language proficiency and cultural awareness contributed to global empowerment, this study provided insights into how higher education institutions could better prepare students to become active participants in global society. Cultural competence was essential for fostering inclusive environments and promoting cross-cultural understanding. By elucidating the role of cultural competence in global empowerment, this study informed efforts to create more

inclusive learning environments within higher education institutions. The findings of this study informed educational policy and practice by highlighting the importance of incorporating language and cultural competence development into higher education curricula. By recognizing the significance of these competencies, institutions could better prepare students for success in an increasingly interconnected and multicultural world. Language and cultural competence were particularly important for empowering diverse student populations, including international students, students from marginalized backgrounds and students with linguistic or cultural heritage backgrounds. By understanding the factors that contributed to global empowerment, higher education institutions could better support the diverse needs of their student body. This research had the potential to contribute to the development of more effective and inclusive higher education environments in an increasingly interconnected world.

METHODOLOGY OF THE STUDY

The methodology employed in this study utilized a quantitative approach to investigate the correlation between language mastery, cultural competence and global empowerment among undergraduate and graduate students within higher education. A cross-sectional survey design was implemented to collect data from a diverse sample of students across various academic disciplines and geographical locations. The survey instrument included standardized measures to assess language proficiency levels, cultural awareness and perceptions of global empowerment. Language proficiency was evaluated using validated language proficiency tests or self-reported language proficiency scales, while cultural competence was measured through validated scales assessing intercultural sensitivity, empathy and cross-cultural communication skills. Perceptions of global empowerment were assessed using Likert-type scales measuring students' sense of agency, efficacy and engagement in global issues. Data collection was conducted using online surveys distributed to participants through university email lists, social media platforms and student organizations. Quantitative data analysis techniques, including correlation analysis and regression analysis, were employed to examine the relationships between language mastery, cultural competence and global empowerment. Statistical software such as SPSS was utilized to analyze the data and identify significant associations and predictors. The study aimed to provide empirical insights into the role of language and cultural competencies in fostering global empowerment among students in higher education, thereby informing educational practice and policy aimed at promoting global citizenship and intercultural understanding.

OBJECTIVES OF THE STUDY

I. To examine the relationship between language mastery and global empowerment among students in higher education.
II. To explore the relationship between cultural competence and global empowerment among students.
III. To assess the combined influence of language mastery and cultural competence on global empowerment.

FINDINGS OF THE STUDY

I. The relationship between language mastery and global empowerment among students in higher education.

The findings regarding the relationship between language mastery and global empowerment among students in higher education revealed several significant insights. The study utilized correlation analysis to examine the association between language proficiency levels and perceptions of global empowerment among participants.

Table 5.1- Correlation Analysis between Language Mastery and Global Empowerment

Variable	Language Mastery	Global Empowerment
Language Mastery	1.00	0.65
Global Empowerment	0.65	1.00

The results indicated a strong positive correlation between language mastery and global empowerment (r = 0.65, p < 0.001). This finding suggests that individuals with higher levels of language proficiency tended to report greater feelings of empowerment in global contexts. Specifically, students who demonstrated proficiency in multiple languages were more likely to perceive themselves as capable and effective in navigating diverse cultural and linguistic landscapes, engaging with global issues and contributing positively to global society.

Table 5.2- Regression Analysis Predicting Global Empowerment from Language Mastery

Predictor	B	p-value
Language Mastery	0.52	<0.001

Regression analysis was conducted to assess the predictive power of language mastery on global empowerment while controlling for relevant demographic variables such as age, gender and academic major. The regression model yielded a significant coefficient for language mastery (β = 0.52, p < 0.001), indicating that language proficiency remained a strong predictor of global empowerment even after accounting for demographic factors. This suggests that language mastery plays a crucial role in shaping individuals' perceptions of empowerment in global contexts, independent of other demographic characteristics. The findings underscore the importance of language mastery in fostering global empowerment among students in higher education. They highlight the significant role that language proficiency plays in enabling individuals to effectively navigate and engage with diverse cultural and linguistic environments, ultimately empowering them to become active participants in global society. These insights have implications for educational practice, emphasizing the importance of promoting multilingualism and language learning initiatives within higher education curricula to better prepare students for success in an increasingly interconnected world.

2. The relationship between cultural competence and global empowerment among students.

The relationship between cultural competence and global empowerment among students in higher education was examined through correlation and regression analyses. The results revealed significant insights into how cultural competence influences perceptions of global empowerment among participants.

Table 5.3- Correlation Analysis between Cultural Competence and Global Empowerment

Variable	Cultural Competence	Global Empowerment
Cultural Competence	1.00	0.60
Global Empowerment	0.60	1.00

The correlation analysis demonstrated a strong positive correlation between cultural competence and global empowerment (r = 0.60, p < 0.001). This indicates that individuals with higher levels of cultural competence tend to perceive themselves as more empowered in global contexts. Specifically, students who exhibited greater cultural awareness, sensitivity and adaptability were more likely to feel capable and effective in engaging with diverse cultural environments and addressing global issues.

Table 5.4- Regression Analysis Predicting Global Empowerment from Cultural Competence

Predictor	B	p-value
Cultural Competence	0.45	<0.001

The regression analysis further confirmed the significant predictive power of cultural competence on global empowerment (β = 0.45, p < 0.001). Even after controlling for demographic variables, cultural competence remained a strong predictor of perceptions of global empowerment among students. This underscores the crucial role of cultural

competence in shaping individuals' sense of empowerment in navigating diverse cultural landscapes and engaging with global issues. These findings highlight the importance of promoting cultural competence within higher education to empower students for success in an increasingly interconnected and multicultural world. By fostering cultural awareness, sensitivity and adaptability among students, higher education institutions can better prepare them to thrive as global citizens and contribute positively to global society.

3. The combined influence of language mastery and cultural competence on global empowerment.

The combined influence of language mastery and cultural competence on global empowerment among students in higher education was assessed through regression analysis. By examining how these two factors interact and jointly contribute to perceptions of global empowerment, the study aimed to provide a comprehensive understanding of the mechanisms underlying global empowerment within higher education.

Table 5.5 Regression Analysis Predicting Global Empowerment from Language Mastery and Cultural Competence

Predictor	β	p-value
Language Mastery	0.35	<0.001
Cultural Competence	0.40	<0.001

The regression analysis revealed that both language mastery and cultural competence had significant positive effects on global empowerment. Language mastery demonstrated a standardized coefficient (β) of 0.35 ($p < 0.001$), indicating that language proficiency independently contributed to perceptions of global empowerment among students. Similarly, cultural competence exhibited a standardized coefficient (β) of 0.40 ($p < 0.001$), highlighting its significant independent influence on global empowerment. The combined influence of language mastery and cultural competence on global empowerment was substantial, as evidenced by the overall model fit statistics. The model explained a significant proportion of the variance in global empowerment ($R^2 = 0.56$, $p < 0.001$), indicating that language mastery and cultural competence together accounted for a substantial portion of the variability in students' perceptions of empowerment in global contexts. These findings underscored the importance of considering both language mastery and cultural competence in fostering global empowerment among students. By promoting the development of these competencies within higher education curricula, institutions can empower students to navigate diverse cultural and linguistic landscapes with confidence and efficacy, ultimately preparing them for success in an increasingly interconnected and multicultural world.

DISCUSSION OF RESULTS

The results of the study provide valuable insights into the relationship between language mastery, cultural competence and global empowerment among students in higher education. The findings underscore the significant roles that language proficiency and cultural awareness play in shaping individuals' perceptions of empowerment in global contexts. This discussion will explore the implications of these results and their broader significance for educational practice, policy and future research. The strong positive correlations found between language mastery, cultural competence and global empowerment highlight the interconnected nature of these constructs. Individuals with higher levels of language proficiency and cultural competence tended to perceive themselves as more empowered in navigating diverse cultural and linguistic landscapes and engaging with global issues. This emphasizes the importance of promoting multilingualism and intercultural understanding within higher education curricula to better prepare students for success in an increasingly interconnected world. The regression analyses further confirmed the independent and combined influences of language mastery and cultural competence on global empowerment. Both factors emerged as significant predictors of perceptions of empowerment, even after controlling for demographic variables. This suggests that

interventions aimed at enhancing language proficiency and cultural awareness among students have the potential to positively impact their sense of empowerment in global contexts. By recognizing the significance of these competencies, higher education institutions can design and implement targeted initiatives to foster linguistic and cultural diversity, promote inclusive learning environments and empower students to become active global citizens. The findings have implications for educational policy and practice, particularly in terms of curriculum development and pedagogical approaches. Integrating language and cultural competence development into higher education curricula can help ensure that students are equipped with the necessary skills and perspectives to thrive in an interconnected world. This may involve incorporating language learning opportunities, intercultural communication courses, study abroad programs and service-learning experiences that facilitate meaningful engagement with diverse cultural and linguistic communities. The study opens avenues for future research exploring the mechanisms through which language mastery and cultural competence contribute to global empowerment. Longitudinal studies could investigate the long-term effects of language and cultural competence interventions on students' perceptions of empowerment and their subsequent engagement in global citizenship activities. Qualitative research approaches could also provide deeper insights into students' experiences and perspectives regarding the development of language and cultural competencies within higher education contexts. The findings of this study underscore the importance of language mastery and cultural competence in fostering global empowerment among students in higher education. By recognizing and promoting these competencies, institutions can empower students to navigate and contribute meaningfully to an increasingly interconnected and multicultural world.

EDUCATIONAL IMPLICATIONS

The findings of this study carry significant educational implications for higher education institutions:

- Curriculum Development: Institutions should prioritize the integration of language and cultural competence development into higher education curricula across various disciplines. This integration can take the form of language courses, intercultural communication seminars, study abroad programs and experiential learning opportunities aimed at fostering linguistic and cultural diversity.

- Inclusive Learning Environments: Efforts should be made to create inclusive learning environments that celebrate linguistic and cultural diversity. This involves promoting a campus culture that values multilingualism and intercultural understanding, as well as providing support services for students from diverse linguistic and cultural backgrounds.

- Professional Development for Educators: Faculty members should be provided with professional development opportunities to enhance their own language and cultural competencies. This can include workshops, training programs and resources aimed at equipping educators with the skills and knowledge necessary to effectively support students' linguistic and cultural development.

- Global Engagement Initiatives: Institutions should promote global engagement initiatives that encourage students to apply their language and cultural competencies in real-world contexts. This can involve partnerships with international organizations, service-learning projects and collaborative research endeavors that enable students to engage with global issues and communities.

- Assessment and Evaluation: Institutions should develop robust assessment tools to measure students' language and cultural competencies and track their progress over time. These assessments can inform programmatic improvements and ensure that students are developing the necessary skills and perspectives to thrive in an interconnected world.

CONCLUSION

The study has provided valuable insights into the relationship between language mastery, cultural competence and global empowerment among students in higher education. The findings underscore the significant roles that language proficiency and cultural awareness play in shaping individuals' perceptions of empowerment in global contexts. The study revealed strong positive correlations between language mastery, cultural competence and global empowerment, indicating that individuals with higher levels of language proficiency and cultural competence tend to perceive themselves as more empowered in navigating diverse cultural and linguistic landscapes and engaging with global issues. Regression analyses further confirmed the independent and combined influences of language mastery and cultural competence on global empowerment, highlighting their significance as predictors of perceptions of empowerment among students. These findings have important implications for educational practice, policy and future research. By recognizing the significance of language and cultural competencies, higher education institutions can design and implement targeted initiatives to foster linguistic and cultural diversity, promote inclusive learning environments and empower students to become active global citizens. Integrating language and cultural competence development into higher education curricula can help ensure that students are equipped with the necessary skills and perspectives to thrive in an interconnected world. The study opens avenues for future research exploring the mechanisms through which language mastery and cultural competence contribute to global empowerment. Longitudinal studies and qualitative research approaches could provide deeper insights into students' experiences and perspectives regarding the development of these competencies within higher education contexts. This study underscores the importance of language mastery and cultural competence in fostering global empowerment among students in higher education. By recognizing and promoting these competencies, institutions can empower students to navigate and contribute meaningfully to an increasingly interconnected and multicultural world.

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GENDER INEQUALITY A CHALLENGE TO SUSTAINABLE DEVELOPMENT – THE SOCIOLOGICAL STUDY OF RURAL WOMAN IN KONANUR

Sunil.K
Assistant Professor in Sociology
B,M,Shetty Government First Grade College, Konanur, Hassan District
Mail id- sunilshamith@gmail.com

ABSTRACT

The issue of gender inequality & women's empowerment is the most discussed topics. Gender inequality is evident in all cultures. In India gender disparity is widespread. As a result,low empowerment of women and high gender gap still impede the development of our country. Even though we witness various development process. The likelihood of its sustainability is in question. In order to achieve Sustainable development achieving gender equality is the key. Women's ability to make strategic life choices was denied to them previously. Sociologically we define gender stratification as the hierarchical distribution by gender of economic & social resources in a society. Gender inequality is the issue of both human lights and the indicator of sustainable development. To enhance woman's roles in sustaining their families&communities achieving gender equality is paramount.Gender inequity retards the nation's progress. World over, contextual limitations on gender has been visible. Women and girls have limited access to financial resources, employment, and freedom from violence, so social and political participation are not gender specific. Recognising the criticality of gender equality, upcoming sustainable development goals are centred on women, since she is emerging as equal stake holder in the development paradigm of 2030 agenda for sustainable development. Gender equality and emancipation of rural women is a key for in sustainable development. Gender equality and emancipation of rural women is a key for inclusive development and social progress in India.This paper looks at the gender inequality towards rural women in 3 different sectors where we witness unequal access to education, vulnerable to discrimination and violence, asymmetrical division of labour & rights in work place.

Keywords : *Gender Disparity, Sustainability, Gender Stratification, Empowerment, Freedom.*

Introduction

Gender inequality is the major hurdle for the sustainable development. If our development process need to accelerate, it is only through equality of gender. Gender based differences should address multifarious issues of the women. In rural areas higher level of gender gap is found with various discriminations and violence. In the states such as Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan also Jharkhand including Chhattisgarh women suffer a greater degree of gender discrimination. India's progress toward sustainable development is not ensured without participation of its women and girls, and without strong commitment towards gender equality. We should foster an enabling scenario through gender sensitive approaches with families, Communities, local representatives, & men to abandoning violence& discrimination against women.

UNFPA is supporting the state governments of Bihar, Madhya Pradesh. Maharashtra& Rajasthan for rolling out Beti Bachao Beti padao (BBBP) with a focus on countering gender bias, sex relation& increasing value of girls. India is paired at a critical juncture with fast growing economy, rapid urbanisation & expanding youth population. Women especially in developing country like India, should be bought to the forefront of being the prime beneficiaries and drivers of sustainable development & humanitarian action. Rural women, who bear the biggest burden of care, domestic work and time.

Rural women and girls face the brunt of feminisation of poverty and its intergenerational consequences. They are also most vulnerable in conflict situations and humanitarian crises. Disability rates are higher among rural women support systems will be weak or non-existent and they are stigmatised. Women in rural indigenous culture face marginalisation and human rights challenges, what we identified as multiple form of compounded discrimination and intersectional ties. These often imposed on them to the detriment of their social economic, wellbeing and happiness. So rural women seldom have equal access to land, property, finance entrepreneurship and other skills and capacity building. Education of rural & women is one major enabler of a big leap to their empowerment. Progress in sustainable agriculture& rural development will contribute for gender equality & empowerment of rural women.

Review of Literature

Anna-Maria Lind (2006) stated that India's population still leads traditional lines in rural areas. Religions laws and traditions still determine the lives of many people, particularly women. Social & religious factors make many women refrain from this right in order not to cause distortions within the family. The preference for having sons permeates are social classes in India, which sets the standard for girls throughout their entire lives.

Berta Estevez- Volart (2004) discussed gender discrimination against women in the market place reduces the available talent in an economy, which has negative Consequences. Gender discrimination takes many forms. Many social practices seen as normal from a religious or cultural point of view have women out of the economic main stream. These Social practices have profound economic consequences because they do not allow society to take advantage of the talent inherent in women.

GOI planning commission (2008) indicated that discrimination against women and girl impinges upon their right to health and manifests itself in the form of worsening health & nutrition indices. Then, India continuous to grapple with unacceptably high MMR, IMB, and increasing rates of anaemia, malnutrition, HIV/AIDS among women.

Kalyani meuon Sen and A.K. Shiva Kumar (2001) found that girl in India are discriminated against in several ways – fewer months of breast feeding less of nurturing & play, less care or medical treatment if they fall ill, less of food, less of parental attention. As a result, girls are far, more susceptible than boys to disease and infections, leading to poor health and short life span. It is this lifelong discrimination in nurturing and care that is the real killer of women-less visible, but as unequivocally lethal as female foeticide and infanticide.

Sonalde Desai (1994) observed that parent's reluctance to educate daughters has its roots in the situation of women. Parents have several incentives for not educating their daughter. Foremost is the view that education of girls bring no returns to parents and that their future roles, being mainly reproductive & perhaps including agriculture labour require no formal education.

Importance of gender equality in attaining Sustainable development

The UNDP report defined human development and by extension, sustainable development, as the process of enlarging people's choices. Creating environment in which people can expand their capabilities and opportunities. Sustainable human development refers to the environment of people's life and social progress in all round manner. It also includes enhancing gender equity. Sustainable human development is in true sense pro-poor, pro-nature, pro-jobs, and pro-women.

(Anand and Amartya 1994) says sustainable development should stress to enlarge capabilities of people & women specifically to lead fuel, productive, satisfying & valuable lives by enhancing quality of life such as health, knowledge life expectancy. Without gender equity sustainable development is impossible. There is a link between gender inequality and overall human poverty, best manifested by feminisation of poverty in developing countries

like India. So, policy making and democratic institutions of governance is crucial ingredient by sustainability.

The very notion of gender equality entails the belief that injustice is associated with very definition of the concept. A holistic, Comprehensive approach to sustainability is one of the most important ways to support and maintain gender justice & equality. Human related major themes should be should among are genders.

The gender equality is the fifth sustainable development goal of the U.N. The UN acts to empower women and girls in all its programmes, with stepped up action or gender equality by 2030 sustainable development. India's progress towards gender equality measured by its position such as gender development Index has been disappointing. While Indian GDP has grown by 7% but male-female wage gap is 27% at white collar jobs & this should be addressed quickly.

Cultural Institutions in India, especially those of patrilineality & patrilocality's control role in perpetuating gender inequality should be side-lined. Now a days in rural Indian negative stereotypes eventually disappears confirms the behavioural studies. This underscores the importance of sustained affirmative action as a way to reduce gender bias.

An attitudinal shift is essential for women to be considered as equal within their homes & in broader societies. Then the goal of sustainable development will be in every sense a reality.

Objectives of the study
1. To study inequality & discrimination among rural working women.
2. To study women's special needs for maternity protection and health care.
3. To study their educational back grounds with socio-economic status.
4. To study social Exclusion based on gender inequality.

Area of the study
The study on which the paper is based was konanur a rural Hobli of Arkalgud Taluk in Hassan District Karnataka state. The four issues of women are studied first its inequality & discrimination towards women, secondly women's health care, thirdly socio–economic back ground fourthly the rural women's educational qualification.

Data collection Methodology & sampling
The main purpose of the investigation was to study various form of inequality in background of exclusion so data obtained from respondents through Interview method so interview schedule was structured. A systematic random sampling technique was adopted in the present study a total 100 respondents were interviewed.

Data analysis: A quantitative data was analysed group discussion and Interview methods were used.

Scope for further research
The study and findings in this paper is a significant effort to look at the issue of gender inequality and its feminist outlook. Further research is needed to upgrade in promoting all-round development of women status towards sustainability.

Limitations of the study
The study of gender inequality and its challenge to sustainability is voluminous. Since this study is restricted only to Konanur rural women groups. Thus, scope of the study is restricted also an in-depth study and analysis on this problem is not possible in the present study. Besides, only micro approach could be adopt to complete the study.

Findings of the study
Inequality and discrimination
  a) Caste inequality and gender inequality of women in relation to social exclusion is vast, because women in rural areas belong to weaker and backward castes, who cannot find the decent jobs. Caste based social stigma combined with low standards of living makes women to work in unfavourable conditions. In this study most worker belong to backward and scheduled castes.

b) **Religion:** in this study area also plays a key role in deciding women's inequality, many women respondents mostly belong to Hindu religion 87%, in that 11% to Islam and 2% to Christianity. Even many women are made to sit out of their houses for 3 days during menstrual cycle, they are not allowed to worship and participate in any kind of religious affairs, menstruating women are considered to be polluting this practice is more evident among Hindus. Even in some upper caste Hindus women are not allowed to enter burial grounds in case of funerals. Religious base is also a deciding factor in gaining employment for women of Konanur Hobli. Religious bias is by and large deciding professional life for women. In many cases women belonging to minority religious groups are looked down upon and made to wait for even manual jobs.

c) **Age:** Many young women worked in rural areas, who were below 23 years of age. Many women were married at the age of 18 years. In this study age group belongs (18-23 yrs) were found to be working in large numbers about (62%) from the research done. This clearly shows women are made to work and they being in some kind of work is mandatory due to their low- economic status and host of domestic responsibilities. The family is bounded upon endogamous rule.

d) **Gender discrimination:** In this study working women from three sectors were examined and interviewed. Here married women working were 74%, unmarried comprises of 20% deserted women about 2%, divorced women about 1% and widows comprises of 3% the respondent women's worked in coffee Industry in nearby Kushalnagar of Coorg district , construction sector was second and thirdly as Agricultural labourers. But majority of rural women of Konanur works in agricultural sector on daily wages with very low remuneration. The women from all the mentioned 3 sectors face severity of discrimination. Here in agricultural sector, women face lot of discrimination, based on gender, when compared with construction worker women and coffee curing women worker. The most un-organised sector and payments are given at the will of landlords which will have many parameters such as gender, caste, kinship etc. The women belong to socially exclusive caste groups faced the brunt of the situation. Not a single woman in this sector is aware of gender protection laws, policies and constitutional safeguards that protect the interest of women.

e) **Need for maternity protection and health care:** This paper concentrated on the women's conflict situations towards women, childcare, household being in rural area number of dependents are more that adds multiple domestic roles all have contributed to the vows of working women. Here more than a career growth the women are looking for the income that supports their basic livelihood. Since they do not have higher education qualification, they are subjected to various hardships in balancing work role and domestic role. Many rural areas have limited access especially women's health providers. Significant disparities exist between rural and urban women. In this study women from heterogeneous differences in caste, religion composition are studied. Many kinds of health issues such as anaemia, malnutrition, obesity of post-delivery, diabetes and even mouth cancer due to excess use of chewing tobacco, ortho related problems such as Arthritis also found here. Lack of preventive screening also adds vows to such issues. With regard to maternity and reproductive health services received a sexual active rural women aged 15-45 Educational qualifications combined with a host of domestic burdens lead to weak socioeconomic status.

f) **Educational status:** Due to mass and rejuvenated educational policies now a days we can see there is a slightly women education statistics. In this study of

konanur hobli about 63% of women have matriculation, 21% have graduation, 9% have post-graduation, 7% of them are either illiterates or school dropouts.

This situation clearly says women donot get chance to higher education and jobs, due to their moderate level of education, they cannot afford or bargain for decent wages. Most of the women in rural areas belong to BPL [Below poverty line] category. Their wages support only hand to mouth, without they being working, family affairs will not run smoothly. In many cases women are made to work forcefully, many women who have families suffer from their men-folk due to alcoholism, gambling, Indebt Ness, extramarital affairs etc. They can't even think of basic life, lot of domestic problems made these women to lead a stressed life.Low edin on sustainability. When the above-mentioned conditions have equal and interrelated importance. Building up socio-economic aspects of sustainability while neglecting its balance leads to social inequalities and degradation in the society. This paper looks at critical perspective on present sustainable development paradigm at the background of women rights, their ailing conditions, for social and gender justice. Finally to conclude it is said that sustainable development is multi-layered process. It encompasses social, economic, political and cultural environment dimensions.

Conclusion:

Only when men and women engage in socio-economic and environmental conditions do sustainable Development happen. Without it is contra years within the past year relied on family planning methods (35%). Rural women access to health care is low because of poverty, ignorance, illiteracy, poor transportation facilities and lack of awareness. They travel long distance to receive care in medical, dental and mental health services to tertiary care hospital which are located in urban areas. In this study we noticed that women aged 15-45yrs reported delayed care or no medical care due to lack of specialists (19.7%) and it indicates that women belong to low caste strata and loe income groups, many ASHA (Accredited Social Health Activist)workers coordinating to strike a balance with maternal-child and rural health agency to identify health needs of rural women and barriers to health care. Only education research, employment and poverty disparity removal program can negate these problems.

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USER'S INFORMATION NEEDS IN RURAL PUBLIC LIBRARIES DAKSHINA KANNADA DISTRICT, KARNATAKA: A STUDY

Puttegowda H C
Librarian, Govt. College for Women's, Mandya
E-mail: hcplib@gmail.com

Dr. Sujatha H R
Librarian (Rtd.) Selection Grade Librarian.
Sri Venkataramana Swamy College Bantwal, Dakshina Kannada

ABSTRACT

Dakshina Kannada district is spread from the Western Ghats onwards to the Arabian sea to the West, is bordered by Udupi district in the North, Shimogga, Chikkamagaluru, and Hassan districts in the East, Kerala state and Kodagu district in the South. Rural Public library is a social institute supported by public funds, which provide free information on social, economic, cultural and recreational needs of the society in the District. This paper discusses about the User's Information Needs and Information Seeking Behaviour of Rural Public Libraries in Dakshina Kannada, Karnataka.The survey method was used to collect the requisite data for the analysis. The data collected from the Users are tabulated in the Microsoft Excel Sheet. SPSS software was used for the data analysis and creation of the tables.Simple random sampling technique was employed. Totally 700 questionnaires were distributed among the User's who visited the 120 Gram Panchayat libraries. A total of 600 (85.71%) usable questionnaires were received. The findings revealed that the majority of the respondents 228 (38%) belonged to the income group of Rs.35,000 to 60,000 per annum. The main purpose of visiting the Gram Panchyat Libraries is for reading newspapers (25.3%). The paper also give suggestions to rural libraries for effective services to the users.
Keywords: *Information Seeking Behavior, Rural Public Libraries , Dakshina Kannada District, Karnataka*

Introduction:

Public Libraries play an important role in providing Library and Information Services to each and every community in society including Agriculturists (Dunne, 2002). Agriculture is the main occupation of most Indians; over 70% of rural households depend on agriculture (Arjun, 2013)."Library acts as a bridge between information providers and information seekers. The role of rural public library is to act as the local centre of education, information and culture. The main aim of the rural public library is to give sufficient information and knowledge to the people in different fields including recreation.**It serves the public without any discrimination on the basis of caste, creed, age, gender, status, and educational attainments. It is, therefore described as 'People's University. It is a democratic institution of the people, by the people, and for the people.**Rural public libraries have been relatively understudied when compared to public libraries as a whole.

Users;

A person who makes use of a thing: Someone who uses or utilizes something. According to S.R. Ranganathan user's as a reader in the context of library who would visit the premises of library for reading books, journals, and other literature of his/her interest. The term reader had been extensively used in library literature in tune with the latest changes in extensive services available in the library the term reader is replaced with users

Information

According to Shannon and Weaver in 1949 expresses the role of information that reduces uncertainty and enables people to access the information to apply for their use.

Information Needs

Information Need Is an individual or a group's desire to locate and obtain information to satisfy a conscious or unconscious need. Information need refers to individual user needs regarding information needed by each person. Information need is understood as evolving vague awareness of something from missing and as culminating in locating the information that contributes for understanding and meaning. (Doraswamy, 2017)

Rural Public Libraries (RPL): are important institution as academic and socio-cultural organization for the rural people.

A public library is a library that offers services to the public free of charge and it also provides educational, social and political information to people in a particular community. Generally, public libraries are accepted as a public good. In the words of Olanlokun and Salisu (1993),

Literature review:

Arvind K. Sharma (2007)[1] conducted research on Information Seeking Behaviour of 667 respondents of Gwalior region. The findings were: 84.85 % respondents sought their information through Television. Tele communication was the major source of information in rural areas. 98.5% of respondents depended on telephone, while 4.34% sought their information through internet. Majority of the rural respondents sought their information through almanac. And also 76.46% of rural people got information of government related schemes through radio and television.

Anupama and Tadasad (2009)[2] made a study on Gramapanchyath libraries in Gulbarga district. Eight taluks were covered out of the ten. The study states that most of the users refer newspapers, magazines, stories and novels. And most of the users were not satisfied with the infrastructure. Library Staff were not cooperative to the users.

Objectives of the study:

The following objectives are main objectives of the study;

Objectives:

1. To identify Information needs of Users of Rural Public Libraries of Dakshina Kannada District
2. To find out purpose of using the Information sources by the Rural Public Library users.
3. To recommend possible ways of improve the library services towards meeting the needs of the Rural Public Library Users

Methodology:

The survey method was used to collect the requisite data for the analysis. The investigator designed a tentative questionnaire before conducting the main survey. . The final version of modified questionnaire contains both Kannada and English Languages. The questionnaire includes both qualitative and quantitative data on attitudes, ideas, opinions and view points. Other sources of information such as web resources, Gazetteers, web resources, e-journal were consulted while preparing the questionnaire .Totally 700 questionnaires were distributed among the User's who visited the 120 Gram Panchayat libraries. A total of 600 (85.71%) usable questionnaires were received.

Scope and Limitations of the study:

The scope of the study is limited to 'User's Information Needs and Information Seeking Behaviour of Rural Public Libraries of Dakshina Kannada District (Karnataka)', particularly the users and library fraternity at large. The study is conducted by selecting the sample from 120 grama Panchayat libraries, geographically distributed in various zones of Rural Public Libraries of Dakshina Kannada District (Karnataka).

Analysis and Interpretation of Data:

GENDER:

The district of Dakshina Kannada has a favorable sex ratio, females out numbering the males. Therefore library is important for enhancing the knowledge of women. For housewives library is important for acquiring knowledge, primarily related to their wards education. The study of the ratio between men and women library visitors enables to assess gender sensitivity, and to know whether any relation exists between the nature and type of information required regarding Gender and the type of activity carried out by the Rural Public Libraries users.

Table No. 1 Gender wise percentage

Gender	Respondents	Percentage
Male	241	40
Female	359	60
Total	600	100
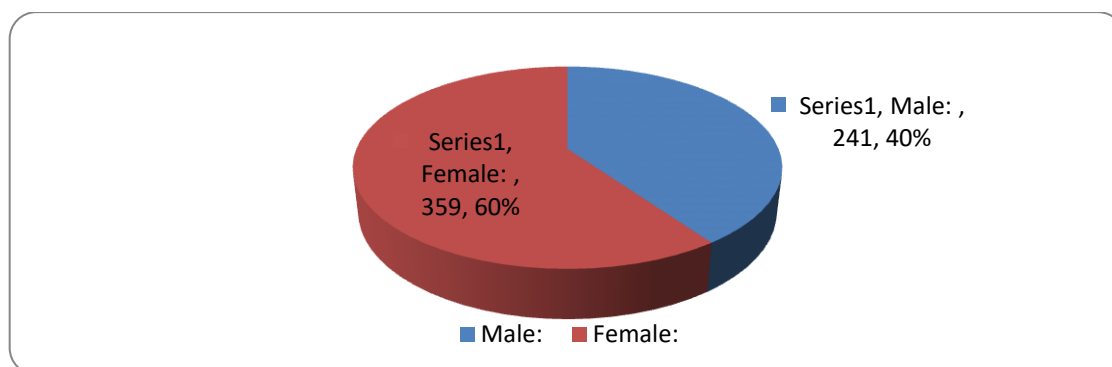
Figure No. 1

AGE:

Profile of respondent's age throw light on the pattern of library users. The different age groups of users like students aged from early teenage to late twenties, Employees and house wives, aged from late twenties to sixty years, Senior citizens above the age of sixty often visit the library to spend their leisure time in library.

Table No.2: Age of respondents

Sl. No	Age	No of respondents	Percentage
1	12-20	144	24.00
2	21-30	161	26.84
3	31-40	159	26.50
4	41-50	85	14.16
5	51-60	35	5.8
6	Above 60	16	2.6
	Total	**600**	**100**

EDUCATIONAL BACKGROUND

The knowledge seeking habit of users depends upon the level of education of the users. Being a highly literate district, education factor plays a prime role in Dakshina Kannada.

Table No.3 Respondent Educational Background

Sl.No	Educational background	Respondents	Percent
1	Under Matriculate	0	0
2	Matriculate	198	33.0

3	PUC	101	16.8
4	Graduate	210	35.0
5	Post Graduate	91	15.2
	Total	**600**	**100**

PURPOSE OF VISITING THE GRAMA PANCHAYATH LIBRARIES

   People visit the library for divergent information requirements which varies from newspaper, reading, borrowing books, improving knowledge, better status, employment related news etc.

Table No. 4 Purpose of visiting Grama Panchayat Libraries

S.No	Purpose of visiting Library	Respondents	Percent
1	To read newspaper /Magazines	152	25.3
2	To borrow lending materials	108	18.0
3	Career information	126	21.0
4	General information	63	10.5
5	Entertainment	0	0
6	Exam	51	10.2
7	Business/ Agriculture	30	5.0
8	Weather	60	10.0
9	Supplement Education	0	0
	Total	**600**	**100**

   The table No.3 and figure No.4 shows that, out of 600 respondents, 152 (25.3%) visitED the library for reading newspapers, whereas 126 (21%) of the respondents visit the library for seeking career information and 108 (18%) of the respondents visited the library to borrow library materials. Again 63 (10.5%), 61(10.2%), 60(10%), 30 (5.0%) of the respondents visit the library for Career information, General information, preparing for examinations, Business / Agriculture and Weather report respectively.

Information needs

	Frequency	Percent
Agriculture	90	15.0
Health	6	1.0
Sports	103	17.2
Career guidance	64	10.7
Travel to Places	97	16.2
General knowledge	90	15.0
Biography	60	10.0
Current events	90	15.0
Total	600	100.0

   From the above table, it was found that Majority of the respondent, i.e. 90 (15.0%) of respondents need agriculture related information, whereas 103(17.2%) respondents need sports related information, 97(16.2%) respondents need information about tourist places, 90(15%) of respondents need general information and current events information and 64(10.7%) respondents need career guidance related information.

Table No.5 Level of information needs

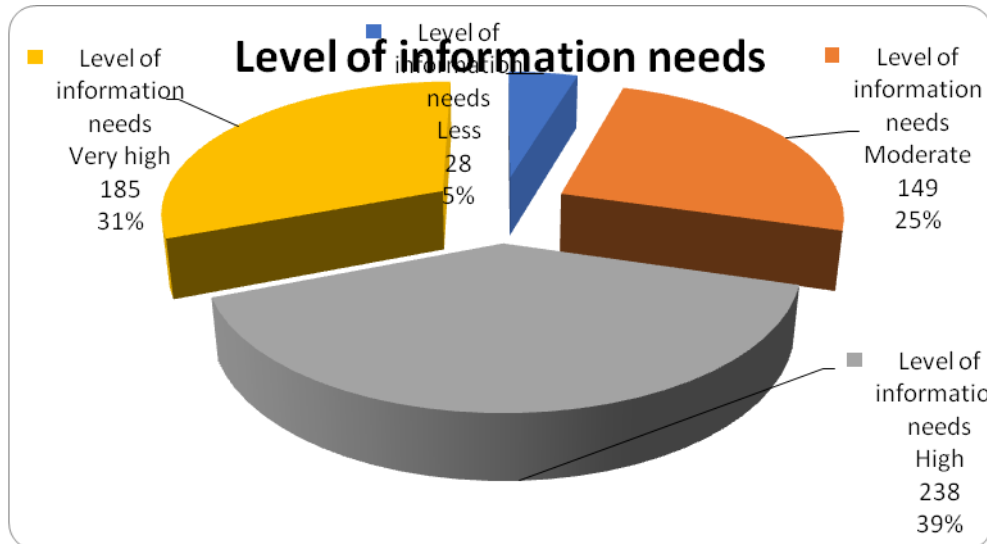| Level of information Needs	Respondent	Percent	Mean	Standard deviation
Less	28	4.7		
Moderate	149	24.8	2.97	0.86
High	238	39.7		
Very high	185	30.8		
Total	**600**	**100.0**		

Figure No.2

Table No.5 and fig 2shows the level of information needs of the respondents in Rural Public library .Among 600 respondents, the level of information needs was higher extent 238(39.7%), very high by 185 (30.8%), moderate by 149 (24.8%) and level of information needs was less by 28 (4.7%) respondents.

An average mean score with standard deviation: 2.97 ±.86 which is in the range 9-12 shows that on an average, there was high level of information seeking by the respondents of the panchayat library users.

Findings and Suggestions:

1. The analysis of the study by calculating the percentages of female and male respondents shows that 60% of female respondents and 40 % of male respondents.
2. It is found that 27% of the respondents were in the age group of 21-30 years and the age group of 31-40 years
3. Its depicts that More than one third of respondents were graduates, while 33% respondents were matriculate and only 16.8%were Pre-university qualification.
4. The main purpose of visiting the Gram Panchyat Libraries is for reading newspapers (25.3%) and 21% of the respondents visited the library for seeking Career information. About ten per cent of the respondents visited the library to borrow library materials, seeking General information.
5. It is found that Majority of respondents, 90(15.0%) of respondents needs agriculture related information , Whereas 103(17.2%) needs sports related information, , 97(16.2%) Travelling places, 90(15%) of respondents needs general knowledge and current events information and 64(10.7%) needs career guidance related information. (Table 29 information needs)
6. The paper reveals that The level of information needs of the respondents in Rural Public library .Among 600 respondents, the level of information needs is higher extent 238(39.7%), very high among 185 (30.8%), moderate among 149 (24.8%) and level of information needs is less among 28 (4.7%) .

Suggestions

1. Financial support should be given to rural libraries and The government needs to make budgetary allocations for strengthening rural libraries.

2. Flexible hours of work by extending library working hours will be helpful to users. At present the libraries are kept open from 10AM to 5PM. This is not user friendly. Libraries can be kept open from 7AM to 7PM.

3. The library has to replenish with more titles in different disciplines as per the requirements of the users. Library needs to use standard respondent sheets from the users to know their requirement.

4. More collection / sources on farming methods and other relevant information need to be provided in the rural library to attract farmers / farming community.

5. Uninterrupted data connectivity must be provided to the rural library and have good network with sufficient bandwidth among rural public library for information sharing, resources sharing and efficient use of resources.

Conclusion:

Libraries play a key role in the accumulation and dissemination of knowledge. They enable people to enrich their innate abilities. They help in the social, economic, educational and cultural progress of a nation. This thesis has used all the tools and techniques in data collection and data analysis for the collection of information. The rural library services must be adapted to the different needs of communities in rural places. The study finds that the Librarian is an active intermediary between users and resources. Professionalism and continuing education of the Librarian is indispensable to ensure adequate services.

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NAVIGATING THE HORIZON: EMERGING TRENDS IN HIGHER EDUCATION IN INDIA

Dr. Raghavendra V Madalli
Assistant Professor
*Shree Kumareshwar College of Education, **Hangal***

ABSTRACT

Navigating the Horizon: Emerging Trends in Higher Education in India" offers a comprehensive analysis of the shifting paradigms within the country's higher education sector. This article examines five key trends shaping the landscape: digital transformation, flexible learning pathways, interdisciplinary studies, industry-academia collaboration, and holistic development. Through case studies and scholarly insights, it highlights how these trends are revolutionizing teaching, learning, and research methodologies. Emphasizing the importance of innovation and adaptability, the article underscores the need for higher education institutions to embrace these trends to remain relevant and competitive in a rapidly evolving global environment. By navigating these emerging trends effectively, India's higher education sector can cater to the diverse needs of students, foster interdisciplinary collaboration, bridge the gap between academia and industry, and promote holistic development. Ultimately, this exploration aims to provide stakeholders with valuable insights to navigate the horizon of higher education in India and pave the way for a future-ready educational ecosystem.

Keywords: *Higher education, Emerging trends, Flexible learning, Interdisciplinary studies, Industry collaboration, Holistic development, Innovation, Student-centered.*

Introduction

In the ever-evolving landscape of higher education, India stands at a crossroads, poised to embrace emerging trends that promise to shape its educational future. As the demands of a rapidly changing world continue to redefine the skills and competencies required for success, higher education institutions in India are navigating new horizons to remain relevant and responsive to the needs of students and society.

The article "Navigating the Horizon: Emerging Trends in Higher Education in India" delves into the transformative shifts sweeping through the Indian higher education sector. With a focus on five key trends—digital transformation, flexible learning pathways, interdisciplinary studies, industry-academia collaboration, and holistic development—the article examines how these trends are reshaping teaching, learning, and research methodologies.

Against the backdrop of technological advancements, globalization, and evolving economic landscapes, the article explores the implications of these trends for higher education stakeholders. From the integration of digital technologies to the promotion of interdisciplinary collaboration, each trend offers unique opportunities and challenges for institutions seeking to foster innovation, inclusivity, and excellence in education.

As India strives to position itself as a global leader in higher education, understanding and embracing these emerging trends are crucial. By navigating the horizon of higher education with foresight and adaptability, India's institutions can chart a course toward a future-ready educational ecosystem that empowers individuals to thrive in an increasingly complex and interconnected world.

Higher education in India is experiencing a dynamic shift, spurred by technological advancements, changing economic landscapes, and evolving student expectations. As the country strives to meet the demands of a globalized world, several emerging trends are reshaping the higher education landscape. This article explores these trends and their implications for the future of higher education in India.

Digital Transformation

One of the most prominent trends in higher education is the rapid adoption of digital technologies. The proliferation of online learning platforms, virtual classrooms, and digital resources has democratized access to education, allowing students to learn anytime, anywhere. EdTech startups are leveraging artificial intelligence, machine learning, and data analytics to personalize learning experiences and improve educational outcomes. As digital literacy becomes increasingly essential, institutions are integrating technology into their curricula and investing in infrastructure to support digital learning environments.

Digital transformation refers to the integration of digital technologies into various aspects of an organization's operations, processes, products, and services to fundamentally change how it operates and delivers value to stakeholders. In the context of higher education, digital transformation encompasses leveraging technology to enhance teaching, learning, research, administration, and student support services.

Online Learning Platforms: Digital transformation has led to the proliferation of online learning platforms, which offer courses and programs delivered entirely or partially over the Internet. These platforms provide flexibility for students to access educational content from anywhere, at any time, and often offer interactive features such as video lectures, quizzes, and discussion forums.

Virtual Classrooms: Virtual classrooms enable synchronous online learning experiences, where students and instructors interact in real time through web conferencing tools. This technology allows for live lectures, discussions, presentations, and collaborative activities, simulating the experience of a traditional classroom in a digital environment.

E-Learning Resources: Digital transformation has expanded access to a wealth of e-learning resources, including multimedia educational materials, digital textbooks, open educational resources (OER), and educational apps. These resources enhance the learning experience by providing diverse content formats and interactive learning opportunities.

Learning Management Systems (LMS): Learning management systems are software applications used to manage, deliver, and track educational content and activities. LMS platforms facilitate course administration, content management, assessment, and communication between students and instructors. They serve as centralized hubs for organising and delivering digital learning resources.

Personalized Learning: Digital technologies enable personalized learning experiences tailored to individual student needs, preferences, and learning styles. Adaptive learning platforms use algorithms to analyze student performance data and provide personalized recommendations and adaptive feedback, fostering customized learning pathways for each student.

Data Analytics: Data analytics tools and techniques allow higher education institutions to collect, analyze, and derive insights from vast amounts of data generated through digital interactions. By leveraging data analytics, institutions can improve decision-making, identify trends, monitor student performance, and enhance educational outcomes.

Mobile Learning: With the widespread adoption of smartphones and tablets, mobile learning has become increasingly popular in higher education. Mobile learning apps and platforms enable students to access educational content on the go, facilitating anytime, anywhere learning opportunities.

Flexible Learning Pathways

Traditional modes of education are giving way to more flexible learning pathways tailored to individual needs. Blended learning models, combining online and face-to-face instruction, offer students greater flexibility in scheduling and pace of learning. Competency-based education focuses on mastering specific skills and competencies, allowing students to progress at their own pace and demonstrate proficiency through assessments. Lifelong learning initiatives encourage continuous skill development and

upskilling, empowering individuals to adapt to evolving job market demands and remain competitive in their careers.

Flexible learning pathways refer to the diverse approaches and modalities through which individuals can pursue education and skill development according to their unique needs, preferences, and circumstances. These pathways offer flexibility in terms of scheduling, pace, delivery mode, and learning environment, allowing learners to tailor their educational experiences to align with their personal and professional goals.

Blended Learning: Blended learning combines traditional face-to-face instruction with online learning components. This approach offers the flexibility of both in-person interactions and digital resources, allowing learners to engage with course materials at their own pace while still benefiting from instructor-led sessions, discussions, and collaborative activities.

Online Learning: Online learning, also known as distance education or e-learning, enables learners to access educational content and participate in courses entirely over the internet. Online learning platforms offer a wide range of courses, programs, and resources, allowing individuals to study remotely from anywhere with an internet connection.

Competency-Based Education (CBE): Competency-based education focuses on mastering specific knowledge, skills, and competencies rather than adhering to traditional academic structures based on time-bound courses and credits. Learners progress through CBE programs at their own pace, demonstrating proficiency through assessments that measure their ability to apply learning outcomes in real-world contexts.

Prior Learning Assessment and Recognition (PLAR): PLAR recognizes and gives credit for the knowledge and skills that learners have acquired through prior experiences, such as work, volunteer activities, or informal learning. By assessing and validating prior learning, PLAR allows learners to accelerate their progress toward credentials and qualifications.

Flexible Scheduling: Flexible learning pathways offer options for learners to choose their study schedules, allowing them to balance education with work, family commitments, and other responsibilities. Self-paced learning modules, evening and weekend classes, and modular course structures are examples of flexible scheduling options.

Microcredentials and Nanodegrees: Microcredentials and nanodegrees are short, focused programs designed to develop specific skills or competencies relevant to a particular industry or job role. These credentials are typically shorter in duration and more flexible than traditional degree programs, allowing learners to acquire targeted skills quickly and adapt to changing workforce demands.

Open Educational Resources (OER): OER is freely accessible educational materials that can be used, shared, and adapted by educators and learners worldwide. By leveraging OER, learners have access to a wealth of high-quality learning resources, reducing barriers to education and promoting lifelong learning.

Interdisciplinary Studies

In response to complex societal challenges, interdisciplinary studies are gaining traction within higher education institutions. Breaking down traditional disciplinary boundaries, interdisciplinary programs foster collaboration across diverse fields, encouraging innovation and holistic problem-solving. By integrating perspectives from multiple disciplines, students gain a comprehensive understanding of complex issues and develop critical thinking skills essential for addressing real-world problems. Interdisciplinary research initiatives further contribute to knowledge creation and drive innovation in various sectors.

Interdisciplinary studies involve the integration of knowledge, methodologies, and perspectives from multiple disciplines to address complex problems and phenomena. Unlike traditional disciplinary boundaries, interdisciplinary approaches transcend departmental silos and encourage collaboration across diverse fields to foster holistic understanding and innovative solutions.

Integration of Disciplines: Interdisciplinary studies bring together insights and methodologies from various academic disciplines, such as humanities, natural sciences, social sciences, and professional fields. By integrating diverse perspectives, interdisciplinary approaches offer a comprehensive understanding of multifaceted issues that cannot be adequately addressed within the confines of a single discipline.

Holistic Problem-Solving: Interdisciplinary studies enable holistic problem-solving by considering multiple dimensions of complex phenomena. Rather than approaching problems from a narrow disciplinary lens, interdisciplinary scholars analyze issues from diverse perspectives, taking into account social, cultural, economic, environmental, and ethical factors to develop comprehensive solutions.

Collaborative Research: Interdisciplinary research involves collaboration among scholars from different disciplines to explore interdisciplinary questions, conduct empirical investigations, and generate new knowledge. Collaborative research teams leverage their collective expertise to tackle interdisciplinary challenges, often employing mixed-method approaches and interdisciplinary frameworks to address research questions.

Innovation and Creativity: Interdisciplinary studies foster innovation and creativity by encouraging cross-fertilization of ideas and approaches from disparate fields. By breaking down disciplinary boundaries, interdisciplinary scholars have the freedom to explore unconventional connections, challenge conventional wisdom, and generate novel insights that drive innovation and discovery.

Real-World Relevance: Interdisciplinary studies emphasize the application of knowledge to real-world problems and contexts. By addressing pressing societal challenges, such as climate change, healthcare disparities, or technological innovation, interdisciplinary research contributes to the development of practical solutions and informs evidence-based policy-making and decision-making.

Transdisciplinary Collaboration: Transdisciplinary collaboration goes beyond interdisciplinary approaches by involving stakeholders from outside academia, such as policymakers, practitioners, community members, and industry partners. Transdisciplinary teams co-create knowledge and solutions through sustained engagement and dialogue, ensuring that research outcomes are relevant, actionable, and impactful in addressing real-world problems.

Interdisciplinary Education: Interdisciplinary education programs offer students opportunities to explore connections between different disciplines, engage in interdisciplinary research projects, and develop critical thinking and problem-solving skills. Interdisciplinary curricula often emphasize experiential learning, project-based assignments, and interdisciplinary seminars or workshops to prepare students for interdisciplinary careers and lifelong learning.

Industry-Academia Collaboration

Closer collaboration between academia and industry is becoming increasingly vital to bridge the gap between theoretical knowledge and practical application. Industry partnerships provide students with valuable hands-on experience, internships, and mentorship opportunities, enhancing their employability and readiness for the workforce. Collaborative research projects enable academics to address industry-relevant challenges, foster innovation, and drive economic growth. Entrepreneurship programs and incubators support aspiring entrepreneurs in translating ideas into viable ventures, fostering a culture of innovation and entrepreneurship within the academic ecosystem.

Industry-academia collaboration refers to partnerships, interactions, and collaborations between academic institutions (such as universities, colleges, and research institutes) and industry sectors (including businesses, corporations, and non-profit organizations). These collaborations aim to bridge the gap between theoretical knowledge generated in academic settings and practical applications in the industry, fostering innovation, knowledge exchange, and economic growth.

Knowledge Transfer: Industry-academia collaboration facilitates the transfer of knowledge, expertise, and technology between academic researchers and industry professionals. Academics share their cutting-edge research findings, theoretical insights, and methodological approaches, while industry partners contribute practical experience, industry-specific knowledge, and real-world challenges.

Research and Development (R&D) Partnerships: Collaborative R&D projects between academia and industry enable joint research endeavours to address industry-specific challenges, develop innovative solutions, and advance scientific knowledge. These partnerships often involve co-funding, resource sharing, and collaborative problem-solving, leading to mutually beneficial outcomes for both academia and industry.

Technology Transfer and Commercialization: Industry-academia collaboration facilitates the transfer of academic research outcomes and intellectual property to the commercial sector. Through technology transfer offices, licensing agreements, and spin-off companies, academic innovations are translated into commercial products, services, and technologies that benefit society and drive economic growth.

Workforce Development: Collaboration between academia and industry contributes to workforce development by aligning educational programs with industry needs and skill requirements. Industry partners provide input on curriculum development, offer internships, co-op programs, and apprenticeships, and participate in guest lectures and industry-sponsored projects, preparing students for careers in the industry.

Innovation Ecosystems: Industry-academia collaboration fosters the development of innovation ecosystems, bringing together academia, industry, government, and other stakeholders to catalyze innovation and entrepreneurship. Innovation hubs, research parks, and incubators provide physical spaces and support services for collaborative research, technology commercialization, and startup formation, driving regional economic development and job creation.

Knowledge Exchange Networks: Collaboration between academia and industry facilitates knowledge exchange networks, where researchers, practitioners, policymakers, and entrepreneurs share ideas, best practices, and emerging trends. These networks promote cross-sectoral collaboration, interdisciplinary research, and collaborative problem-solving, leading to innovative solutions to complex societal challenges.

Policy and Advocacy: Industry-academia collaboration informs policy development and advocacy efforts aimed at fostering a conducive environment for collaborative research and innovation. By advocating for research funding, intellectual property rights protection, and regulatory reforms, stakeholders can enhance the impact of industry-academia collaboration on economic development, job creation, and societal well-being.

Emphasis on Holistic Development

In addition to academic excellence, there is a growing emphasis on holistic development encompassing personal, social, and emotional dimensions. Institutions are prioritizing the holistic well-being of students by offering comprehensive support services, mental health resources, and extracurricular activities. Student-centred approaches focus on nurturing leadership skills, communication abilities, and ethical values essential for success in a diverse and interconnected world. The integration of liberal arts education enriches students' intellectual breadth, fosters creativity, and cultivates a broader understanding of human society and culture.

Emphasis on holistic development in education refers to an approach that nurtures the overall well-being and growth of individuals, encompassing not only academic achievement but also personal, social, emotional, physical, and ethical dimensions. This approach recognizes that education should not solely focus on cognitive development but also on fostering the holistic development of students to help them become well-rounded individuals capable of thriving in various aspects of life.

Academic Excellence: While holistic development encompasses various dimensions, academic excellence remains an essential component. However, the emphasis is not solely on grades and test scores but on fostering a deep understanding of subjects, critical thinking skills, creativity, and a lifelong passion for learning.

Personal Growth: Holistic education focuses on nurturing the personal growth of students by promoting self-awareness, self-confidence, and self-esteem. It encourages students to explore their interests, talents, and passions, fostering a sense of identity and purpose.

Social and Emotional Learning (SEL): SEL is integral to holistic development and involves developing skills such as empathy, communication, collaboration, and resilience. Holistic education emphasizes the importance of creating supportive and inclusive learning environments that foster positive relationships, emotional well-being, and social responsibility.

Physical Health and Well-being: Holistic development includes promoting physical health and well-being through regular physical activity, nutrition education, and health promotion initiatives. Healthy lifestyle habits, including exercise, proper nutrition, and adequate sleep, are essential for overall well-being and cognitive functioning.

Ethical and Moral Development: Holistic education places emphasis on cultivating ethical awareness, moral values, and responsible citizenship. It encourages students to develop a strong sense of ethics, integrity, empathy, and respect for diversity, preparing them to contribute positively to society and make ethical decisions in their personal and professional lives.

Experiential Learning: Holistic development is often facilitated through experiential learning approaches that engage students in hands-on, real-world experiences. Activities such as service learning, community engagement, outdoor education, and experiential projects provide opportunities for students to apply their knowledge, develop practical skills, and deepen their understanding of themselves and the world around them.

Life Skills Development: Holistic education equips students with essential life skills necessary for success in various life domains, including communication skills, problem-solving skills, time management, and financial literacy. These skills enable students to navigate challenges, pursue their goals, and lead fulfilling lives beyond the classroom.

Conclusion

In conclusion, "Navigating the Horizon: Emerging Trends in Higher Education in India" sheds light on the transformative shifts reshaping the higher education landscape in the country. The exploration of digital transformation, flexible learning pathways, interdisciplinary studies, industry-academia collaboration, and emphasis on holistic development underscores the dynamic nature of higher education and its evolving role in preparing individuals for success in the 21st century.

As India strives to meet the challenges and opportunities of a rapidly changing world, embracing these emerging trends is imperative. By leveraging digital technologies, adopting flexible learning models, promoting interdisciplinary collaboration, fostering industry partnerships, and prioritizing holistic development, higher education institutions can adapt to the evolving needs of students, society, and the workforce.

Furthermore, these trends offer avenues for innovation, inclusivity, and excellence, positioning India's higher education sector as a catalyst for social transformation, economic growth, and global competitiveness. By navigating the horizon of emerging trends with foresight, adaptability, and collaboration, India can pave the way for a future-ready educational ecosystem that empowers individuals to thrive in an interconnected and rapidly evolving world. Through collective efforts and strategic investments, higher education in India can truly become a beacon of knowledge, innovation, and opportunity for generations to come.

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THE ROLE OF CONSTITUTIONAL BODIES UNDER THE INDIAN CONSTITUTION: A FOCUS ON THE ELECTION COMMISSION OF INDIA

Dr. Ranganathaiah C.B
Associate Professor of Law
Government Law College, Kolar

ABSTRACT

This article explores the pivotal role of constitutional bodies in upholding democratic values within the framework of the Indian Constitution, with a special focus on the Election Commission of India (ECI). Constitutional bodies in India serve as guardians of democratic principles, ensuring equity, transparency, and accountability in governance. The Election Commission of India, as one of the most significant constitutional bodies, is tasked with the crucial responsibility of conducting free and fair elections, which form the cornerstone of democracy. Through an examination of the functions and significance of constitutional bodies, this article underscores their indispensable role in safeguarding the democratic ethos of the nation. The conclusion emphasizes the ongoing need for autonomy, transparency, and citizen engagement within these bodies to reinforce public trust and confidence in democratic institutions. Ultimately, the resilience of India's democracy rests on the unwavering commitment of constitutional bodies to uphold the principles of justice, equality, and fraternity, guiding the nation toward a future where democratic ideals flourish.
Keywords: *Constitutional bodies, democracy, Election Commission of India, governance, accountability*

Introduction:

In the tapestry of India's vibrant democracy, constitutional bodies stand as stalwarts, fortifying the foundational principles enshrined in the nation's Constitution. These bodies, established with constitutional mandates, serve as custodians of democratic values, ensuring equity, transparency, and accountability in governance. Among these, the Election Commission of India (ECI) emerges as a beacon of electoral integrity, tasked with the formidable responsibility of conducting free and fair elections, the cornerstone of democracy.

At the heart of India's democratic ethos lies a commitment to upholding the rule of law, protecting individual rights, and fostering inclusive governance. Constitutional bodies, endowed with quasi-judicial powers and institutional autonomy, epitomize this commitment by functioning as guardians of the Constitution. From overseeing electoral processes to safeguarding human rights and ensuring administrative probity, these bodies constitute the bulwark of India's democratic edifice.

In this article, we embark on an exploratory journey into the pivotal role played by constitutional bodies within the Indian polity, with a special focus on the Election Commission of India. We delve into the significance of these bodies in upholding democratic principles, examine their functions, and underscore the indispensable role they play in fostering a vibrant and inclusive democracy.

As we navigate through the intricate landscape of India's constitutional framework, it becomes evident that the efficacy of these bodies lies not merely in their institutional mechanisms but in their unwavering commitment to upholding the sanctity of democratic ideals. Against the backdrop of a dynamic and evolving socio-political landscape, the role of constitutional bodies assumes heightened significance, serving as the bedrock upon which the edifice of Indian democracy stands firm.

Join us on this insightful exploration as we unravel the multifaceted dimensions of constitutional governance in India, celebrating the resilience, integrity, and indispensability of these bodies in safeguarding the democratic ethos of the nation.

Constitutional Bodies in India:

India's Constitution[1] provides for the establishment of various independent bodies entrusted with specific functions to ensure the proper functioning of democracy. These bodies derive their authority directly from the Constitution and operate autonomously to fulfill their mandates. Some of the key constitutional bodies include the Election Commission of India, the **Union Public Service Commission (UPSC)**[2], the National **Human Rights Commission (NHRC)**[3], and the **Comptroller and Auditor General of India (CAG)**[4], among others.

The Role of Constitutional Bodies:

Constitutional bodies in India are tasked with diverse responsibilities aimed at maintaining the integrity of the democratic process, protecting citizens' rights, and ensuring accountability in governance. These bodies act as checks and balances on the executive and legislative branches of government, thereby upholding the principles of separation of powers and ensuring the rule of law.

Functions of the Election Commission of India:

The Election Commission of India is one of the most significant constitutional bodies in India, entrusted with the superintendence, direction, and control of the entire electoral process. Its primary functions include:

1. **Conducting Free and Fair Elections:** The ECI is responsible for conducting elections to the Lok Sabha, Rajya Sabha, state legislative assemblies, and the offices of the President and Vice-President of India. It ensures that elections are conducted in a free, fair, and transparent manner, with equal opportunities for all political parties and candidates.
2. **Electoral Roll Management:** The ECI oversees the preparation and revision of electoral rolls, ensuring the accuracy and completeness of voter lists. It undertakes measures to enroll eligible voters, update voter information, and eliminate discrepancies to maintain the integrity of the electoral roll.
3. **Election Administration:** The ECI oversees the entire electoral process, from the announcement of election schedules to the declaration of results. It formulates rules and guidelines for the conduct of elections, deploys election officials, supervises polling stations, and addresses any irregularities or disputes that may arise during the electoral process.
4. **Enforcement of Election Code of Conduct:** The ECI enforces the Model Code of Conduct (MCC) to ensure fair play and a level playing field during elections. It regulates the conduct of political parties and candidates, prohibits activities that may influence voters unfairly, and takes action against violations of the MCC.
5. **Voter Education and Awareness:** The ECI undertakes voter education and awareness programs to promote electoral participation and voter literacy. It educates citizens about their electoral rights and responsibilities, conducts voter registration drives, and utilizes various media platforms to disseminate information related to elections.

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[1] *Indian Constitution*
[2] *Union Public Service Commission (UPSC)*
[3] *Human Rights Commission (NHRC)*
[4] *Comptroller and Auditor General of India (CAG)*

Conclusion:

In the intricate tapestry of India's democratic fabric, constitutional bodies emerge as the guardians of liberty, equity, and justice. Through their impartial and autonomous functioning, these bodies uphold the foundational principles enshrined in the Constitution, ensuring that the democratic edifice remains resilient against the tides of time and circumstance. As we draw the curtains on our exploration of the role of constitutional bodies in India, particularly focusing on the Election Commission of India, it becomes apparent that their significance transcends mere institutional frameworks—they embody the collective aspirations of a vibrant democracy.

The Election Commission of India, in particular, stands as a sentinel of electoral integrity, safeguarding the democratic process by conducting elections that are free, fair, and transparent. Its unwavering commitment to upholding the sanctity of the electoral process ensures that the voice of the people resonates with clarity and conviction, reaffirming the democratic mandate.

However, the journey towards a robust and inclusive democracy is an ongoing endeavor—one that requires continuous introspection, adaptation, and reform. As we navigate the complexities of a rapidly evolving socio-political landscape, it is imperative to reinforce the autonomy and integrity of constitutional bodies, shielding them from undue influence and partisan agendas.

Moreover, fostering greater transparency, accountability, and citizen engagement within the workings of these bodies is essential to enhancing public trust and confidence in democratic institutions. Robust mechanisms for grievance redressal, proactive outreach initiatives, and leveraging technology for greater accessibility can further democratize the functioning of constitutional bodies, ensuring that they remain responsive to the evolving needs and aspirations of the populace.

In essence, the resilience of India's democracy hinges upon the steadfast commitment of constitutional bodies to uphold the principles of justice, equality, and fraternity. As custodians of the Constitution, they embody the collective will of the people, guiding the nation towards a future where democratic ideals flourish, and the rights of every citizen are safeguarded with unwavering diligence.

As we bid adieu to this exploration, let us reaffirm our collective resolve to nurture and protect the democratic ethos that forms the bedrock of our nation. Through sustained efforts to strengthen constitutional governance, we pave the way for a future where democracy thrives, and the aspirations of every Indian find expression in the corridors of power.

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COMPARATIVE STUDY OF PHYSICAL FITNESS BETWEEN KHO-KHO AND ATHLETIC PLAYERS

Dr. Raveesh G.S
Physical Education Director,
Govt. First Grade College, Kunigal

PHYSICAL FITNESS : -
- ➤ Physical fitness involves performance of the heart, lungs and the muscles of the body.
- ➤ Fitness is the condition of the body that helps us look, feel, and do our best
- ➤ Fitness is the ability to perform daily tasks vigorously, and alertly and it is the ability to endure, to bear up, to with-stand stress to carry out daily activities.

According to Bucher :
- ➤ "It is the ability of an individual to lead a full and balanced life. It involves physical, mental, emotional, social and spiritual factors and a capacity for their wholesome expression".
- ➤ It enables people to perform up to their potential.
- ➤ For one to be considered physically fit, the heart, lungs, and muscles have to perform at a certain level for the individual to continue feeling capable of performing an activity.

STATEMENT OF THE PROBLEM

Comparative study of Physical fitness between Kho-Kho and Athletic players

De-Limitation :
- ➤ The study was de-limited to 100 players, 50 Kho-Kho and 50 Athletic players those who are represented in any of the recognized competition in School Sports and Games.
- ➤ The study is restricted to the players not beyond 12 and 16 years of age.
- ➤ The assessment of physical fitness is delimited to the AAHPER Youth Fitness test and its norms.

Limitation :
- ➤ The study is limited to children who have participated at least twice in the Inter-School competitions like Taluk/District/Division/State/National.
- ➤ This study is purely limited to the subjects of the Tumkur city High-School Boys studying in different schools and participated in competitive games and sports, respectively.

Hypothesis :
- ➤ It was hypothesized that the Physical Fitness of Kho-Kho players is higher than that of Athletic players.

SIGNIFICANCE OF THE STUDY
- ➤ The study brings the light on the parents to make their children physically active and its importance in the present day life.

COMPONENTS OF THE PHYSICAL FITNESS

Speed :
- ➤ It is the capacity of the individual to perform successive movements of the same pattern at a fast rate.
- ➤ For this 50 Yard Dash is taken as a component to measure time taken for performance of speed in seconds

Strength :
- ➤ It is the capacity of the muscle or group of muscles to exer forces with an ability to do higher motor performance.

➢ For this Pull-UP is the component to measure the strength of an individual in numbers

Endurance :
➢ It is the result of physiological capacity of the individual to strain movement over a period of time.
➢ To measure the Endurance Sit-Up is the component performed by an individual in numbers.

Flexibility :
➢ It is the ability of each individual to move the body and its parts through a wide range of motion as possible without undue strain to the articulations and muscle attachments.
➢ The distance covered in Ankle Flexion is taken as the tool to measure this flexibility of an individual in centimeters.

Agility :
➢ The physical ability which enables an individual to rapidly change body position and direction in a precise manner.
➢ Shuttle run is the activity to check the agility of the individual in seconds.

Power :
➢ It is the product of force and velocity, the ability to apply force at a rapid rate.
➢ Standing Broad-Jump is considered for studying this component of an individual in meters.

METHODOLOGY
➢ To check the speed, the individual had to run 50 yard dash and the time taken is recorded up-to $1/100^{th}$ of the second.
➢ To check the strength, pull-up is introduced and total number of pull-ups in one stretch is considered as the performance of an individual.
➢ To check the Endurance, sit-up is conducted and an athlete in a single stretch how many number of Sit-ups performed is taken in numbers.
➢ To check the flexibility, ankle flexion test is taken such that an individual standing near the wall and touching both the foot to wall, with both heels on ground and athlete is instructed to move both foots away from the wall upto such a distance when athlete wanted to lift his heels from the ground, this distance from wall to toe of the athlete's leg is the flexibility of the individual which is measured in centimeters.
➢ To check the agility, shuttle run is conducted by keeping three stations at an interval of 6 mts each, when an individual starts his activity from starting, the stop watch is started and when he finishes, the stop watch is closed. The time taken upto $1/100^{th}$ of the seconds.
➢ To check the power (explosive power) standing broad jump is done. From the line drawn near the broad jump pit, an athlete will stand behind the line and jump into the pit with both legs. The distance covered from starting line to nearer jumped leg is taken as the measurement in meters.

After getting the results, the Statistical Data such as Mean, Median, Mode, Standard Deviation, Co-efficient of variation , and Correlation are conducted.

Physical components	Section	Mean	Median	Mode	Standard Deviation	Co-efficient of Variation	Correlation
Shuttle – run	Kho-Kho Boys	16.62	16.65	16.71	0.38	2.29	0.9870
	Athletic Boys	17.18	17.20	17.24	0.39	2.27	0.9990

Standing	Kho-Kho Boys	1.69	1.69	1.69	0.089	5.27	0.9992
Broad-Jump	Athletic Boys	1.51	1.52	1.54	0.075	4.97	0.9995
50 Yard dash	Kho-Kho Boys	6.40	6.41	6.43	0.22	3.44	0.9995
	Athletic Boys	7.36	7.44	7.60	0.44	5.98	0.9977
Pull-ups	Kho-Kho Boys	9.02	9.60	10.76	1.17	12.97	0.9900
	Athletic Boys	6.94	7.42	8.38	1.33	19.16	0.9858
Sit-Ups	Kho-Kho Boys	17.10	17.54	18.42	2.26	13.22	0.9540
	Athletic Boys	9.18	9.73	10.83	1.22	13.29	0.9880
Ankle Flexion	Kho-Kho Boys	77.36	78.36	80.36	3.83	4.95	0.8580
	Athletic Boys	59.86	60.25	61.03	4.89	8.17	0.8000

RESULTS AND CONCLUSION

When Statistical data are conducted and results analyzed. The Physical Fitness of Kho-Kho Boys is higher in all components compared to the Physical Fitness of Athletic Boys.

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MODERNIZATION WITH PRESENT TENDENCY IN RURAL MARKETING- A CONCEPTUAL ANALYSIS

Renuka Bai V
Research Scholar
Institute of Management Studies and Research
Kuvempu University, Jnana Sahyadri, Shankaraghatta

Prof.R.Hiremani Naik
Professor, Institute of Management Studies and Research
Kuvempu University, Jnana Sahyadri, Shankaraghatta

ABSTRACT

According to research, rural market is one of the growing concepts in Present scenario. It is stimulating buying pattern of village people.. A majority share of the world's population lives in rural regions of the world. Modernization in marketing is about initiating remarkable changes in product design, product arrangement, product pricing, or product advertisement. Forethought and execution of marketing functions in rural regions are known as rural marketing. The achievement of marketers in the rural region depends on how well they understand the requirements and perspectives of rural consumers. Since this segment constitutes a significant share of the world population, it offers an affluence of opportunities in comparison to urban regions. The paper will focus on the rural market situation in India, tendency, possibly, and initial Modernizations made in the rural market, in Indian circumstances, Modernizations in rural markets should be based on 4 namely: awareness, acceptability, affordability, and most importantly availability. Our thoughts should always be that when creating a new product, it should be less expensive and balance the demand-supply in the market.

Keywords: *Indian rural market, Modernization, rural marketing, rural consumers and challenges.*

Introduction

According to research, Modernization in marketing is an exertion that implicates inventiveness that has a positive impression on a new product and service. Marketing is a procedure through which product and service information is transmitted to consumers. The Modernization marketing approach is all about executing market research into customer exigencies, behaviors, and tendencies, developing changes within product-enriching products unconventionally, etc, for example, barn goods is a farm supply store in a rural environment. The local area includes many family cattle farms, due to the community's remote location, delivery times from men who live in the area, farm for a living and need convenient access to farming equipment and feed for their animals.

The business closely follows the farmers' cyclical needs. This way, barn goods can buy extra inventory before demand grows. They understand that it is important for their business to be a reliable source of essential items.

Rural Marketing

Rural marketing is a process of developing, pricing, promoting, and distributing rural-specific goods and services leading to the desired exchange with rural customers to satisfy their needs and wants, and also to achieve organizational objectives.

Rural marketing is similar to timely 'marketing' rural marketing differs only in terms of buyers. Here, the target market consists of customers living in rural areas. Thus, rural marketing is an application of marketing fundamentals (concepts, principles, processes, theories, etc.) to rural markets.

Characteristics of the Indian Rural Market

1. ***Huge and spread out:*** it offers several opportunities to marketers and producers in comparison to urban regions. It constitutes the maximum number of consumers since it covers the greater part of the world's population.
2. ***Traditional expectations:*** people are traditional in their thinking level and also are superstitious in their beliefs. Due to the rising literacy level in rural Zono, this tendency is changing amongst rural youngsters.
3. ***Source of income:*** agriculture is the major source of income for people living in a rural zone, their income is affected and purchasing power gets decreased because of crop failure.
4. ***Issues:*** illiteracy, backward and orthodox are the most persistent features amongst rural people. Due to this, it gets hard to persuade them to purchase the products.

Need of Marketing in Rural India

i. **A huge population in India:** India 2021 is estimated at 1,398,679,859 corers people at mild-year according to United Nations data. India's population is equivalent to 17.70% of the total world population, 65% of Indians live in rural areas and 35% live in urban areas. These statistics indicate the need for rural marketing.

ii. **Employment generation:** rural marketing can generate more attractive employment opportunities for rural and urban people. The growth of rural marketing guides extended business operations, professional activities, and services that can produce plenty of employment opportunities.

iii. **Enhanced rural infrastructures:** rural marketing and basic infrastructures go hand. The growth of rural marketing leads to improved transportation, insurance, banking, communication, entertainment, and other facilities. Due to the availability of basic infrastructural facilities, business units can easily reach the target rural customers.

iv. **Improved living standard:** due to the marketing system, rural customers can easily approach needed standard goods and services at equitable prices. In the same way, rural marketing upgrades rural infrastructure, additionally, rural marketing can also improve their income. These all aspects can directly improve living standards.

v. **Growth of agro-based industries:** rural marketing leads to setting up agro-based processing industries. Fruits, vegetables, cereals, pulses, etc., are used as raw materials. Such industries can improve farmers' profit margins and employment opportunities.

Tendency in Rural Marketing

The industries must maintain their concentration on the quality of products with proper information to get a change in the opinion of rural customers. Some of the current trends in rural marketing are as follows;

1) **Large population:** the Indian rural market with its large size and demand offers a great opportunity to marketers. Our nation is classified as around 748 districts and approx, 664,369 villages, Indian rural market is vast in size because the rural population accounts for almost 65.07% of the Indian population as the recent census 2021, 898 million live in rural India, 38% of rural population includes youth, number of households around 33 corers. The rural market is currently worth approximately expected to cross the US$ 20 billion mark by 2018 and reach US$ 100 billion by 2025.

2) **Green Revolution:** the vision of Dr Swami Nathan, the father of the Green Revolution to achieve self-sufficiency in food grain production in 1995, gave a breakthrough in food grain production through the use of scientific methods in agriculture. At present, India's food grain production is estimated to rise 3,74 per

cent to a new record of 308,65 million tones in the crop year 2020-21. The substantial attention accorded to agriculture during the successive five-year plans has helped in improving agricultural productivity. Adoption of new agronomic practices, selected mechanization, multiple cropping, the inclusion of cash crops, and the development of allied activities like dairy, fisheries, and other commercial activities have helped in increasing the disposable income of rural consumers, by observing this scenario, India's one of the biggest giants Hindustan lever Ltd, has entered into the rural marker for more penetration through the operation "Bharat".

3) **Smart mobiles act in rural India:** according to a report released last year by analysis firm Kantar, Smartphone penetration in rural India was only 28% in 2019. As per the telecom regulator, India's rural penetration in February 2021 was over 59% of the rural mobile phone users a bulk around 300 million still uses feature or basic phones with no internet connectivity. A KPMG analysis showed that 43,000 villages, accounting for 6.7% of total villages in India, were not connected by telecom towers in the same year.

4) **IT perception in rural India:** this increase will be driven by higher adoption in rural India, which has clocked a 13% growth to 299 million internet users over the past year, or 31% of India's rural population, the report said. Small towns currently account for almost two out of every five active internet users in the country.

5) **Media:** in the current situation, the role of media is very important to upgrade rural society. It can stimulate the rural people towards progress. The mass media have been used at once for transmission of development communications to the people of this society as in others.

6) **Schemes for rural development launched by the government of India**
    a) Pradhan Mantra Gram Sadak Yojana.
    b) Deen Dayal Upadhyaya Grameen Kaushalya Yojana.
    c) Swarnjayanti Gram Swarozgar Yojana (SGSY) National Rural Livelihood Mission.
    d) Prime Minister Rural Development Fellows Scheme.
    e) National Rural Employment Guarantee Act (NREGA).

7) **Increased literacy level and employability opportunities' of rural youth:** Rural people realized their children's seduction is the priority. Significant progress on literacy levels -90 % of the villages have a primary school within a 1 km walk. Private school enrolment in rural India has enhanced by 5.5% points over the past six years, the adult literacy rate for females in rural areas is 50.6% vis-a-vis 76.9% in urban areas whereas for males in rural areas is 74.1% vis-a-vis 88.3% in urban areas. This increases the employment of rural youth, therefore; the youth of the village are motivated to work in nearby urban areas.

8) **Credit facilities through banks and Microfinance:** with cooperative banks taking the lead in the rural areas, every village has access to short-, medium-, and long-term loans from these institutions. These credit facilities extended by public sector banks through Kinas Credit cards help the farmers purchase seeds, fertilizers, and goods on an installment basis.

9) **Aware of a brand:** the rural market in India is not a separate unit in itself and it is highly affected by the sociological and behavioral factors operating in the country. Spending on FMCG products, especially in rural areas is showing an increasing trend.

Challenges

All Indian corporations are currently trying to reach the villages. For it is the foundation upon which they serve their purpose. The growth rate is declining it is difficult to reach the rural population but very few corporations like Hindustan unlevel are on the top list triumphant through their rural marketing projects like 'Shakti' operation Bharat, Amul

with their aggressive marketing strategy, and ITC with their e-choupal. Many others like Coca-Cola, Colgate, Britannia, BSNL, LIC, Hero Honda, LG electronics, etc., successfully strive to expand the market of villages.

The Major Challenges are as Follows:

a) Low purchasing power
b) Deprived people and deprived markets
c) Bad communication facilities
d) Transport
e) Multi-languages
f) Dispersed markets
g) Low per-capital income
h) Lack of information technology
i) Prevalence of fraudulent brands and seasonal demand.

All of the above factors have been categorized into the 4 A's of rural marketing which is also known as the rural marketing mix which is as follows:

❖ **Awareness:** mass media can reach only 59% of the rural people. Creating awareness means utilizing targeted, unconventional media including ambient media. For generating awareness, events like fairs and festivals, haats, etc., are used as occasions for brand communication. Cinema vans, shop-fronts, walls, and wells are other media vehicles that have been utilized to increase brand and pack visibility. Innovative media used by personal wash like Lux and Lifebuoy and fabric wash items like Rin and Wheel. The idea was to advertise not only at the point of purchase but also at the time of consumption. Hindustan Lever relies heavily on its company-organized media. These are promotional events organized by the stockiest. Godrej consumer products, which are trying to push its soap brands into the interior areas, use radio to teach the local people in their language. Creating brand awareness through appropriate media is very important for companies to gain acceptability among rural folks.

❖ **Affordability:** since rural consumers have low disposable incomes, products must be such that can be afforded by rural consumers. The problem of affordability has been addressed by a few companies through the introduction of small unit packs. Godrej recently introduced three sizes of control, Fair Glow, and Godrej in 50gm packs, Hindustan lever, among the first MNCs to realize the potential of India's rural market, has launched a variant of its largest-selling soap brand, lifebuoy at Rs.2 for 50gm. The move is mainly targeted at the rural market. Coca-Cola has addressed the affordability issue by introducing the returnable 200ml glass bottle priced at Rs.5. HUL initiated Operation Bharat to tap rural markets by bringing out low-priced sample packets of its toothpaste, fairness cream, shampoo, and other products.

❖ **Availability:** To market the products available to consumers, companies adopt a variety of means such as direct selling, using company delivery vans, syndicated distribution between non-competitive marketers, setting up temporary stalls in rural meals, or hat, etc., in rural areas with places far-flung and well connected with proper roads, delivering the product to rural consumers can be a challenge. Companies have realized this and are trying to be creative in this situation. BPCL initiated a specially designed Rural Marketing Vehicle which moved from village to village for filling cylinders on the spot. The company promotes and uses the SHGs network present in the villages to increase its sales in rural areas. The SHGs have presented a chance to become the company's local small-scale distributor in rural areas. These groups typically capsize 15 to 20 people. They buy a small stock of items like soap, detergents, or shampoos and sell directly to consumers in their

homes. This innovative distribution model is a win-win for the company and the village SHGs.

❖ **Acceptability:** another challenge is to gain acceptability for the product or service. Therefore there is a need to offer products that suit the rural market. One company, which has reaped rich dividends by doing so, is LG Electronics. In 1998, it developed a customized TV for the rural market and christened it Sampoorna. Because of the lack of electricity and refrigerators in the rural areas, coca-cola provides low-cost ice-boxes- a tin box for new outlets and a for the rural market have performed well. HDFC standard LIFE topped private insurers by selling policies worth Rs.3.5 crore in total premier. The company tied up with nongovernment organizations and offered reasonably priced policies like group insurance covers. Mobile device companies are also tailoring their products to rural marketers. For instance, Nokia had earlier launched a basic handset with a torch and an alarm clock. In December 2008, the company launched Nokia Life tools, which is a range of agriculture, education, and entertainment services designed especially for consumers in small towns and rural areas of emerging markets. The product is meant to provide timely and relevant information customized to the user's location and personal preference directly on their mobile services.

Strategies

The previous approach regarding rural markets as appendages of the urban market is incorrect, because rural markets have their own life and, it successfully nurtured, may become a source of profit for marketers. Rural markets, on the other hand, may be utilized by realizing them rather than viewing them as handy extensions of the urban market.

- **Marketing strategies:** marketers must first understand the psychology of rural consumers and then respond accordingly. In comparison to urban marketing, rural marketing necessitates more extensive personal selling activities. Firms should avoid creating items for urban markets and then pushing them into rural communities. A brand must link itself with the same activities that rural people do to effectively access the rural market. This may be accomplished by leveraging different rural folk media to reach them in their language and huge numbers so that the brand can be connected with the numerous rituals, celebrations, festivals, 'melas' and other events where they congregate.

- **Distribution strategies:** one method is to use a corporate delivery van, which may serve two purposes: it can transport items to clients in every nook and cranny of the market, and it also allows the company to create direct contact with them, facilitating sales promotion. Annual "melas" are highly popular and provide a very good distribution platform since people attend them to make multiple purchases. Every year, around 8,000 such melas are organized in rural India, according to the Indian market research bureau, marketers have another low-cost distribution avenue at their disposal, furthermore, each region comprised of multiple villages is normally supplied by one satellite town known as "Mandls" where residents choose to go to acquire their durable commodities, marketing managers may easily cover a substantial portion of the rural population if they employ these feeder towns.

- **Promotional strategy:** marketers must use extreme caution when selecting communication methods, only 16% of rural residents have access to a vernacular newspaper. As a result, the audio-visuals must be carefully organized to transmit the correct message to the rural populace. Traditional media formats, such as folk dances and puppet performances, with which rural customers are accustomed and at ease, can be employed for high-impact product advertising. Radio is also a popular source of information and entertainment and radio commercials may be a useful tool for marketers. Amul Britannia Lifebuoy Colgate Eveready BSNL is one of the major brands that dominate rural India.

Conclusion

The policymakers who ruled India would have been much stronger than the current rural market situation if they had taken several infrastructures for rural India. Rural markets, like any other sector of the economy, offer a lot of untapped potential. Looking at the problems and solutions that rural markets present to marketers, it is clear that those who can grasp the dynamics of rural markets and use them to their full potential will have a bright future.

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ROLE OF DIGITALISATION IN TRANSFORMING HIGHER EDUCATION IN INDIA

Dr. Rizwana Begum
Assistant Professor, Government First Grade College,
Koppa, Chikmagalur Dist. Mail id: rizwanabegum374@gmail.com

Madhu Chetan N
Assistant Professor, Government First Grade College,
Koppa, Chikmagalur Dist. Mail id: chetan351@gmail.com

Kaverappa A K
Assistant Professor, Government First Grade College,
Koppa, Chikmagalur Dist. Mail id: kavsvenu@gmail.com

ABSTRACT

The digital revolution has significantly impacted various sectors, including education. In India, higher education is witnessing a paradigm shift due to the integration of digital technologies. This paper explores the multifaceted role of digitalization in transforming higher education in India. It analyzes the opportunities, challenges, and implications of digitalization for stakeholders such as students, educators, policymakers, and institutions. The paper also discusses strategies for harnessing digital technologies to enhance accessibility, quality, and relevance in higher education, thereby contributing to India's socio-economic development.
Keywords: *Digitalisation, higher education, technology*

Introduction:

The digital age has ushered in a new era of possibilities in higher education globally. In India, the rapid proliferation of digital technologies presents both opportunities and challenges for the higher education sector. The global outbreak of COVID-19 has thrust digital learning into the spotlight, compelling educational institutions across India to swiftly pivot to virtual classrooms. This paper seeks to delve into the multifaceted implications of digitalization for higher education in the Indian context, meticulously exploring its potential opportunities, persistent challenges, and future prospects.

Objectives of the Study:

- To embark on role of digitalization in higher education in India.
- To get a overview of key digital initiatives adopted in Higher education institutions offered by government & non-government entities.
- To analyse the impact of digitalization on various stakeholders.

Role of Digitalization in Higher Education:

The onset of the pandemic catalyzed the widespread adoption of digital tools in higher education, offering a myriad of opportunities for educational access and pedagogical innovation. Alongside these opportunities loom persistent challenges, including the digital divide and apprehensions regarding the quality and efficacy of digitalization in education.

Dwivedi, Y. K. et.al(2020) discussed how the COVID-19 pandemic accelerated the adoption of digital technologies in education, leading to significant changes in the management and delivery of educational content. Sharma, R. C., & Jung, I. (2019). provided insights into how higher education institutions can prepare for digital transformation, focusing on strategic planning, infrastructure, and capacity building. Verma, A., & Prakash, R. (2021) explored the role of various digital technologies in transforming higher education during the COVID-19 pandemic, highlighting the challenges and opportunities faced by institutions.

Singh, A. (2020). examined the digital transformation in Indian higher education, focusing on the specific challenges and opportunities in the Indian context, including infrastructure, policy, and pedagogical changes. Palvia, S.,et.al (2018) comprehensively addressed the global status of online education, identifying key trends and challenges, with implications for the Indian higher education sector. Almaraz, M. E., & Salinas, R. A. (2020) provided a detailed overview of research trends and developments in the digital transformation of higher education, emphasizing the impact of digital technologies on educational practices and outcomes. Warriem, J., Murthy, S., Iyer, S., & Shroff, G. (2014) investigated the integration of technology for collaborative learning in higher education, providing evidence-based insights into the effectiveness and challenges of digital tools in enhancing educational experiences.

Impact on Stakeholders: Students find themselves in an educational landscape characterized by unprecedented flexibility and interactivity, while educators grapple with the necessity of adapting to new roles and pedagogies. Parents and policymakers alike are scrutinizing the efficacy and inclusivity of digital education, emphasizing the need for a comprehensive evaluation of its impact on student outcomes.

Institutional Adoption of Digitalization: Educational institutions have embraced a plethora of digital tools, ranging from learning management systems to virtual classrooms and gamification, in a bid to enhance student engagement and learning outcomes. However, challenges such as real-time progress monitoring and cyber security threats underscore the imperative of robust institutional frameworks and regulatory compliance.

Trending Digital Technologies: The ubiquitous availability of digital devices and high-speed internet connectivity has facilitated seamless access to educational resources, democratizing learning opportunities across geographical boundaries. User-friendly platforms and interactive learning experiences have become the hallmark of digital education, empowering students and educators alike to engage in collaborative knowledge creation and dissemination.

The landscape of education in India has witnessed a profound transformation with the advent of digitalization. Government and non-government entities have embarked on initiatives to embed digital solutions within the education sector, aiming to revolutionize learning experiences and outcomes. A prominent endeavor in this direction is the National Mission on Education through Information and Communication Technology (NMEICT), spearheaded by the Ministry of Education (formerly the Ministry of Human Resource Development). Launched in 2009, NMEICT aims to harness the potential of Information and Communication Technology (ICT) to democratize education and enhance learning opportunities for all learners in Higher Education Institutions.

- **SWAYAM (The Study Webs of Active Learning for Young Aspiring Minds):** SWAYAM, introduced in 2017, offers a diverse range of online courses spanning from 9th grade to postgraduate levels. Developed by the Ministry of Education, SWAYAM prioritizes principles of access, equity, and quality, providing learners with cost-effective and high-quality educational content.
- **SWAYAM Prabha:** Complementing SWAYAM, SWAYAM Prabha delivers curriculum-based educational content through 32 high-quality educational channels accessible via Direct-to-Home (DTH) services. This initiative aims to bridge the digital divide by catering to learners in remote areas with limited internet connectivity.
- **National Digital Library (NDL):** The NDL serves as a virtual repository of learning resources, housing over 3 crore digital resources. With a user-friendly mobile app and comprehensive coverage across various domains of knowledge, NDL facilitates seamless access to educational materials for over 50 lakh registered users.
- **E-VIDWAN:** E-VIDWAN facilitates the dissemination of information about subject experts, fostering collaboration and knowledge exchange among researchers, scholars, and peers across the country. By providing a platform for direct

communication with experts, E-VIDWAN promotes academic excellence and research collaboration.

- **National Academic Depository (NAD):** NAD offers a secure online repository for academic awards, ensuring easy access, authenticity validation, and effective storage of certificates, diplomas, and degrees. As an interoperable digital depository, NAD enhances the credibility and accessibility of academic credentials.
- **Free and Open Source Software for Education (FOSSEE):** FOSSEE, an initiative of IIT Bombay, promotes the use of open-source software in educational institutions. Through instructional materials, documentation, and awareness programs, FOSSEE empowers students and educators with free access to software resources and educational tools.
- **Virtual Lab:** Virtual Lab facilitates hands-on learning experiences through simulated environments, enabling students to conduct experiments and acquire practical knowledge. With approximately 225 virtual laboratories, this initiative enhances the problem-solving capabilities and understanding of complex concepts among learners.
- **Shodhganga and Shodhgangotri:** Shodhganga serves as an open-access repository of electronic theses and dissertations submitted to universities in India, fostering research dissemination and preventing duplication of research efforts. Shodhgangotri enables research scholars and supervisors to deposit approved synopses, facilitating the registration process for PhD programs and offering insights into emerging research trends.
- **E-Shodhsindhu:** Implemented by INFLIBNET, Gandhinagar, E-Shodhsindhu provides access to over 15,000 international electronic journals and e-books, enriching the academic resources available to higher educational institutions. By offering access to premium educational content, E-Shodhsindhu enhances research capabilities and knowledge dissemination among scholars and students.

The key benefits of digitalization in higher education in India can be listed out as follows:

- **Increased Access:** Digital initiatives break geographical barriers, making education accessible to learners in remote areas and those facing socio-economic constraints.
- **Enhanced Quality:** Digital platforms offer personalized and engaging learning experiences, fostering a deeper understanding of concepts and improving learning outcomes.
- **Greater Affordability:** By reducing the cost of textbooks and other educational materials, digital initiatives make higher education more affordable and inclusive.
- **Improved Efficiency:** Digital tools streamline administrative processes and empower educators to focus on teaching and research, enhancing overall efficiency and productivity in higher education institutions.

Setbacks and Regulatory Implications:

Despite the transformative potential of digital learning, a host of challenges persist, ranging from the monitoring of student progress to the prevention of resource theft and cyber threats. Moreover, regulatory constraints, such as accreditation requirements and institutional eligibility criteria, pose formidable barriers to the widespread adoption of digital education in India.

Future Prospects:

Digital learning is poised to usher in a new era of educational accessibility and inclusivity, characterized by responsive resources and self-directed learning methodologies. As India continues its march towards digital transformation, the accessibility and affordability of digital technologies hold promise for bridging existing educational disparities and catalyzing a digital revolution in higher education.

While digitalization offers unparalleled opportunities for educational advancement, its integration must be approached judiciously, with due consideration for the complementarities of traditional learning methodologies. Professional courses necessitating hands-on training may require a hybrid approach, leveraging digital platforms as supplementary resources rather than outright replacements.

Conclusion:

In conclusion, the digital transformation of higher education in India represents a paradigm shift fraught with both promise and peril. By addressing persistent challenges and harnessing digital technologies strategically, India can chart a course towards a more inclusive, innovative, and equitable higher education landscape that empowers learners to thrive in the digital age.

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REVIEW ON MULTIGENERATIONAL PERSPECTIVES AND EVOLVING EXPECTATIONS IN HIGHER EDUCATION

Kavita Sharma
Research Scholar, Department of Education,
Panjab University, Chandigarh

ABSTRACT

This review explores how generational perspectives on higher education have evolved. By analysing a diverse range of literature sources, it aims to understand the transformative shifts in perceptions, attitudes, and expectations across different age cohorts. Key databases such as JSTOR, J-Gate, Web of Science (WoS), Scopus, Google Scholar, Shodhganga and Education Resources Information Center (ERIC) were systematically searched to gather academic journals, government reports, and institutional studies relevant to multigenerational educational expectations. PRISMA methodology was employed in this study to systematically review the literature on generational shifts in higher education. Initially, a broad search across the selected databases yielded 1050 records. Utilizing keywords such as "generational attitudes AND higher education", "millennials OR Gen Z AND education trends","baby boomers AND university education","Generation X AND academic preferences", " Generational gap AND Education", and employing Boolean operators to refine the search, duplicates were identified and removed, reducing the record pool to 865. After screening titles and abstracts for relevance, 779 records were excluded for not focusing on generational perspectives or falling outside the specific time frame of research from the past 30 years spanning from 1993 to 2023. Only open-access papers were selected for further evaluation, excluding studies requiring payment for access or providing only abstracts. The remaining full-text articles were assessed for eligibility based on inclusion criteria, stipulating that studies must directly address shifts in higher education over the last three decades and include empirical data on generational attitudes, with a focus exclusively on the Asian Subcontinent. Exclusion criteria further removed studies lacking empirical evidence or not directly related to educational shifts within the specified geographical focus. This meticulous process narrowed the selection to 46 studies meeting all criteria, providing a detailed view of how generational perspectives on higher education have evolved in the Asian Subcontinent. The review found that older generations typically view higher education as a direct route to employment, whereas younger generations perceive it as a platform for broader personal and professional development. There is also a growing expectation for technology integration in education, reflecting societal digital trends. Economic considerations, such as tuition costs and potential debt, increasingly influence educational choices, steering newer generations toward financial pragmatism. Moreover, there is an increasing demand for personalized learning experiences tailored to individual career goals, moving away from the traditional standardized model.

This comprehensive analysis highlights how generational differences shape perceptions of higher education in Asian Subcontinent, revealing a significant shift towards customization and technological integration in response to changing economic and social landscapes.

Keywords: *PRISMA, generational shifts, higher education, educational technology, financial considerations, personalized learning.*

INTRODUCTION

The landscape of higher education is experiencing profound changes throughout the globe, driven by rapid advancements in technology, shifting economic conditions, and evolving societal norms (Gumport, 2000). These global trends are compelling universities to reassess their roles in terms of educational delivery and their broader mission to foster societal development and prepare future leaders (Kezar et.al, 2015). As Sonetti et. al,(2019) quoted,

the influence of higher education extends deeply into societal dynamics, as students today are the forerunners of tomorrow's societal transformations. This global backdrop provides a perfect opportunity to understand how current trends are shaping the Asian Subcontinent in the higher education system, especially when considering the changes in attitudes, preferences, and expectations among different generations who areenrolled in higher education courses (Kolbel,2013). This exploration helps us understand both the major global movements and the important, though less obvious, shifts within the Asian Subcontinent's educational community.

Higher education sector is uniquely positioned, reflecting both global influences and local traditions. It is in the midst of a significant transformation, shaped by the country's uniquedemographic trends, economic challenges, and digital revolution. As new generational cohorts such as Millennials and the Net Generation enter universities, they bring distinct expectations and behaviours, influenced by their digital nativity and global connectivity. The entrance of these new generational cohorts has introduced complex dynamics into the Asian Subcontinent and academic environment, where traditional educational practices meet modern, technologically driven pedagogies.

Despite the optimistic views of theorists like Xing & Marwala(2017) who predict a seamless integration of these new generations into higher education, empirical studies present a more nuanced picture. A study by Wang et. al,(2022) indicates that while younger students may appear to be digital natives, their actual satisfaction and engagement with online learning platforms do not necessarily surpass that of older generations, who might show greater adaptability in their learning approaches. Such findings suggest that generational differences in the Asian Subcontinent might not only revolve around technological adeptness but also involve deeper pedagogical preferences and xpectations about the educational experience. DiLullo et.al, (2011) portrays the younger generation as potentially disengaged and entitled, challenging the notion that increased technological proficiency equates to more effective learning or a more positive educational experience. This discrepancy highlights the need for a detailed exploration of generational attitudes within the Asian Subcontinent n context, examining how these differing perspectives influence expectations from and engagement with higher education.

Thirty years ago, higher education in the Asian Subcontinent predominantly focused on traditional fields within state-run institutions, catering mostly to middle-class students who sought stable careers in engineering, civil services, and other well-established sectors.

Today, the landscape has transformed dramatically. The proliferation of private and foreign institutions has diversified the educational offerings, and technological advancements play a central role in the curriculum. This evolution has opened doors for students from various socio-economic backgrounds, who now prefer careers in emerging fields such as IT, e-commerce, and entrepreneurship. This shift mirrors the broader changes in the Asian Subcontinent's economic scenario and global job market trends.

This review explores these generational shifts in the Asian Subcontinent in the higher education sector, analyzing how global trends are adapted and integrated locally. It examines the evolving educational needs and their impact on employability, highlighting how these changes affect workforce readiness. Additionally, the review offers insights into the dynamic nature of higher education in the Asian Subcontinent and its potential implications for future graduates.

By focusing on these generational differences, this paper aims to inform educational policy and practice, suggesting ways to accommodate and leverage the diverse expectations and abilities of different cohorts. Understanding these shifts is crucial for ensuring that the evolution of higher education aligns with global standards and local demands, creating an environment that meets the aspirations and challenges of all students.

RESEARCH QUESTIONS
1. How do generational attitudes towards higher education differ between various age cohorts in Asia, and what factors contribute to these differences?
2. What are the implications of generational shifts for the delivery of higher education inAsia, particularly in terms of curriculum design, teaching methodologies, and technological integration?

Methodology

This review employs the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology to ensure a rigorous and transparent approach. Key databases such as JSTOR, J-Gate, Web of Science (WoS), Scopus, Google Scholar, Shodhganga, and Education Resources Information Center (ERIC) were systematically searched using relevant keywords like "higher education," "generational changes," "career preferences," and "Asian Subcontinent," among others, to ensure all pertinent studies were considered.

For the selection of articles, inclusion and exclusion criteria were implemented to uphold the relevance and quality of the selected articles.

Inclusion criteria encompassed articles that offered a global overview of higher education and subsequently narrowed down to focus specifically on the Asian Subcontinent. These articles examined the attitudes and expectations of diverse generational cohorts, such as Millennials, Generation X, and Baby Boomers. To ensure methodological soundness, only studies published in peer-reviewed journals were selected, and these studies were required to provide comprehensive details on research methods, participant demographics, and findings. Exclusion criteria targeted articles that failed to directly engage with Asian Subcontinent and generational cohorts. Studies not centred on higher education settings or addressing irrelevant transitional stages, those were not written in English, and inaccessible full texts were also excluded. The final selection of articles was based on the evidence and alignment with the research objectives regarding generational dynamics in the Asian Subcontinent in the higher education landscape.

The investigator systematically extracted relevant data from the selected articles and compiled them into a comprehensive database. This database included: (a) General information about each article, such as the author(s), study title, year of publication, journal, and primary focus; (b) Study design details, encompassing research objectives, questions and/or hypotheses, underlying conceptual or theoretical frameworks, methodologies employed, sample characteristics, and the definitions of generational cohorts (e.g., Millennials, Generation X, Baby Boomers) used in the study, along with the dependent and independent variables considered; (c) Key findings, which comprised a synthesis of the main results and conclusions about the different generational attitudes and expectations towards higher education in Asian Subcontinent. Initial searches yielded 1050 records, which were refined by removing duplicates and screening titles and abstracts. Studies were included if they directly addressed shifts in higher education over the past three decades and provided empirical data on generational attitudes, with a focus on the Asian Subcontinent. A total of 46 studies meeting all inclusion criteria were selected for detailed analysis.

Findings

In presenting the thematic findings on multigenerational perspectives in higher education across the Asian Subcontinent, the analysis reveals distinct and evolving educational expectations and experiences across different generations. Here, each theme is supported by specific studies, offering a comprehensive view of these shifts:

Shifts in Educational Purpose:

The shifting paradigms in higher education underscore a notable departure from conventional views, wherein education was primarily perceived as a means to secure employment. Recent generations, exemplified by Millennials and Generation Z, are

reshaping this narrative by emphasizing the importance of education for comprehensive personal and professional growth. Cheng (2005a) examines the extensive educational reforms undertaken across the Asia-Pacific Region in response to globalization, technological advances, and economic shifts. Despite significant investment and intentions, many of these reforms have failed to yield sustainable results, primarily due to the lack of a comprehensive knowledge base that could inform effective policy development and implementation. Cheng argues for the necessity of sophisticated educational research to support these reforms, suggesting that understanding the trends and outcomes of past reforms can provide valuable insights for future educational strategies. This study serves as a call to action for enhancing educational research to better support the paradigm shifts and policymaking required to address the challenges of the 21st century in the Asia-Pacific and beyond.

Yin Cheong Cheng advocates for a shift in higher education from the traditional, location-bound approach to a new "triplication" paradigm that integrates globalization, localization, and individualization. This model emphasizes the development of contextualized multiple intelligences (CMI) in students, such as technological, economic, social, political, cultural, and learning intelligence, aiming to cultivate leaders who can thrive in and contribute to a global society enriched with these diverse capabilities. Cheng argues that triplication is essential for reforming higher education by leveraging information technology and extensive global and local networks to enhance lifelong learning, development, and research for students and professors alike. The presentation also highlights ongoing innovations in higher education and discusses their implications for future reforms, illustrating international trends towards this comprehensive approach to learning. The study by Khedkar & Nair, (2016) delves into the evolving role of transformative pedagogy in education, moving away from traditional content delivery to more interactive learning methods. It explores how transformative pedagogy, which combines constructivist and critical approaches, empowers students to critically examine their beliefs and values. The study, conducted in three private universities in Baroda, examines the impact of transformative pedagogy on in-service teachers and students. Data collected from 150 faculty members through questionnaires and interviews aims to redefine transformative pedagogy's objectives and methodologies to better suit today's knowledge- driven society.

While older cohorts like Generation X prioritized education for job security, younger generations, as highlighted by Mantha and Krishna (nd), prioritize the development of soft skills and critical thinking abilities. This shift underscores a fundamental change in educational priorities, emphasizing the importance of holistic personal and professional development over traditional career-focused objectives. The study also examines the role of higher education institutions in equipping Generation Z—born between 1995 and 2010 and comprising 27% of India's workforce—with the skills necessary to meet industry demands. Despite the substantial presence of Gen Z in the workforce, there is a significant skills gap, with the employability rate of engineering students rising only slightly from 46% in 2021 to 57% in 2023, while youth unemployment remains high at 46%. The study explores the unique learning preferences and styles of Gen Z, advocating for tailored training programs that enhance their employability and reduce company training costs. By analyzing secondary data, the paper provides insights into the characteristics of Gen Z, their learning and working preferences, and how these differ from previous generations, aiming to facilitate their seamless integration into the workforce.

A study by Chavan (2016) paper explores the Lifelong Learning initiative at SNDT Women's University, founded in 1916. The Department of Lifelong Learning and Extension (DLLE) offers various undergraduate programs aimed at continuous self- motivated learning. These programs, including disciplines like interior design and early childhood care, focus on holistic development and promote independent thinking among students. Through its vision

of creating a learning society, the DLLE emphasizes lifelong learning from cradle to grave, contributing to individual and community development. This evolution reflects broader societal changes where education is increasingly recognized as a lifelong pursuit essential for adapting to the complexities of the modern job market (Gupta & Mishra, 2023). As such, higher education is transitioning towards a broader framework that nurtures lifelong learning and adaptability, empowering individuals to thrive in an ever-changing world. Technological integration: Technological integration in education is becoming increasingly pivotal, particularly among younger generations who view digital fluency as an essential aspect of their learning experience.

Ameen(2012) conducted a study revealing that Millennials and Generation Z students exhibit higher levels of engagement and achieve better learning outcomes when education incorporates cutting-edge technologies. Through their research, they demonstrated that integrating technology into educational practices significantly enhances student participation and performance. This finding suggests that digital fluency plays a crucial role in shaping the learning experiences of younger generations. Furthermore, their study underscores the importance of adapting pedagogical approaches to meet the evolving needs and preferences of students in the digital age.

Swanzen (2018) further elaborate on this observation, arguing that technology transcends its traditional role as a mere facilitator; it has become a fundamental component of younger cohorts' educational environment. This highlights a paradigm shift in education where technology is not just an accessory but an integral part of the learning process, driving higher engagement and better outcomes among digital-native students.

Lei (2009) emphasize that technological integration is preferred and expected by digital natives. Their research underscores the necessity for educational institutions to align their practices with the digital realities of students' everyday lives. This expectation arises from the ubiquitous presence of technology in various aspects of modern society, making its integration into education a natural progression.

Rana(2012) provide additional insights into this phenomenon by exploring educators' perspectives on technology integration. Their study highlights the challenges faced by teachers in effectively incorporating technology into their teaching practices and underscores the importance of ongoing professional development to address these challenges. By understanding and meeting the expectations of digital-native students, educators can create more engaging and relevant learning experiences that prepare students for success in a technology-driven world.

Bicer and Capraro (2016) conducted a longitudinal study examining the impact of technology integration on student performance. Their findings reveal a positive correlation between technology use and academic achievement, particularly among digital-native students. This suggests that technology plays a crucial role in enhancing learning outcomes and supporting students' academic success.

Harnal et.al, (2024) further elaborate on the potential of technology to improve academic performance through their systematic review focusing on augmented reality (AR) technology. Their review highlights the immersive and interactive nature of AR technology, which fosters deeper conceptual understanding and knowledge transfer across various subjects and grade levels. By leveraging innovative technologies like AR, educators can create dynamic and engaging learning environments that cater to the diverse learning needs of students, ultimately enhancing their academic performance and success.

Economic Considerations Impacting Educational Choices:

Studies conducted by Subrahmanian (1997) shed light on the significant influence of economic considerations on educational decision-making processes. These studies reveal that younger generations, such as Millennials and Generation Z, are particularly attuned to the costs associated with higher education and the potential return on investment.

Agarwal research delves into the factors influencing students' decisions regarding college attendance, highlighting the importance of affordability and financial aid in shaping enrollment patterns. Similarly, Garg and Singh (2018) study examines the financial constraints faced by students and their families, emphasizing the impact of rising tuition costs and student debt burdens on educational choices.

Agarwalla et.al(2012), emphasize the importance of financial literacy among students. Their research underscores how understanding financial implications informs educational choices and long-term financial planning. Gupta and Sharma's study suggests that a lack of financial literacy can lead to uninformed decisions regarding student loans and other forms of financial aid, potentially exacerbating financial hardships for students post-graduation.

Further insights into the intersection of economics and education come from Hadinger (2017), who conducted a qualitative study exploring the financial barriers faced by underrepresented minority students. Their research highlights the disproportionate impact of economic disparities on access to higher education and underscores the need for targeted support programs to promote equity and inclusivity in educational opportunities.

Feng et.al, (2024) conducted a longitudinal study investigating the economic outcomes of different educational pathways. Their findings suggest that the choice of major and institution significantly influences students' earning potential and career trajectories. This highlights the importance of considering economic factors when making educational decisions, as they can have long-term implications for financial stability and professional success.

Implications

The findings of this review carry significant implications for educational policies and practices in the Asian Subcontinent. With the growing preference for customizable education options and personalized learning experiences among younger generations, educational institutions need to adapt their curricula and teaching methodologies accordingly. This adaptation involves incorporating flexible learning environments and personalized curricula that cater to the diverse needs and preferences of different generations, particularly Millennials and Generation Z. By embracing personalized learning approaches, educational institutions can create more engaging and effective learning experiences that resonate with contemporary students. Policymakers in the Asian Subcontinent need to recognize the impact of economic factors on access to higher education. As highlighted by previous research, economic considerations such as rising tuition costs and student debt burdens significantly influence educational decision-making processes. To address these challenges, policymakers should explore strategies to make education more affordable and accessible for all students. This may involve implementing financial aid programs, scholarships, and grants to alleviate the financial burden on students and their families. Additionally, initiatives to promote income-based repayment plans and student loan forgiveness programs can help mitigate the long-term financial implications of pursuing higher education.

Furthermore, investments in educational technology and infrastructure are essential tomeet the growing demand for digital learning experiences. With the rapid advancement of technology, digital tools and platforms play an increasingly vital role in education, facilitating personalized learning, collaboration, and access to educational resources.

Therefore, policymakers and educational institutions must prioritize investments in technology-enabled learning environments, high-speed internet connectivity, and digital literacy programs to ensure equitable access to quality education for all students, regardless of their geographical location or socioeconomic background. Addressing generational differences in higher education is crucial for fostering innovation, inclusivity, and excellence in the Asian Subcontinent's educational system. By embracing customizable education

options, addressing economic barriers to access, and investing in educational technology, policymakers and educational institutions can create a more dynamic and responsive learning ecosystem that empowers students to thrive in the digital age and contribute to the region socio-economic development.

Conclusion

In conclusion, this review provides valuable insights into how generational perspectives on higher education have evolved in the Asian Subcontinent. By identifying key trends and patterns, this paper highlights the need for adaptation and innovation in educational policies and practices to address diverse generational dynamics. Moving forward, educational institutions and policymakers need to collaborate and respond effectively to the evolving needs and preferences of different generations, ensuring that higher education remains relevant, accessible, and transformative for all individuals in the Asian Subcontinent.

In response to this responsibility, universities are compelled to reassess their programs and teaching methodologies, as noted by Santos Rego et al. (2021). The objective is to cultivate graduate student profiles that not only excel professionally but also embrace their social responsibility in fostering a more equitable world. This endeavour necessitates a holistic approach to education that integrates societal values and ethical principles into the curriculum. Against this backdrop, this paper seeks to explore the evolving role of university students and the corresponding adaptations required within higher education institutions. By delving into the intersection of students' social consciousness and professional development, this study aims to contribute to a nuanced understanding of the transformative potential of higher education in shaping a more just and inclusive society.

Expanding on this perspective, it becomes evident that universities play a pivotal role in shaping the future trajectory of society through the education and empowerment of their students. As highlighted by Santos Rego et al. (2021), universities must go beyond imparting technical skills and knowledge; they must also foster a sense of social responsibility and ethical leadership among their graduates. This entails integrating interdisciplinary approaches to education that promote critical thinking, empathy, and cultural competence. By cultivating a diverse and inclusive learning environment that encourages dialogue and collaboration, universities can nurture students who are not only proficient in their chosen fields but also equipped to address complex societal challenges and advocate for positive change.

Furthermore, the evolving role of university students underscores the importance of student-centred approaches to education that prioritize individual growth and development. As students navigate their educational journey, they require support and guidance tailored to their unique backgrounds, aspirations, and learning styles. This necessitates a shift towards flexible and inclusive pedagogical practices that accommodate diverse student needs and preferences. Additionally, universities must provide opportunities for experiential learning, community engagement, and global citizenship to prepare students for active participation in an increasingly interconnected world.

In conclusion, the evolving landscape of higher education in the Asian Subcontinent presents both challenges and opportunities for universities to adapt and innovate in response to changing generational dynamics. By embracing a holistic and student-centred approach to education, universities can fulfil their transformative potential in shaping a more equitable, inclusive, and sustainable society for future generations.

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YOGA'S THERAPEUTIC JOURNEY- EMBRACING ANCIENT WISDOM FOR MODERN HEALING

M. Sharmila
Assistant Professor
P.B. Siddhartha College of Arts & Science, Vijayawada

ABSTRACT

Yoga is philosophy of leading a life filled with comfort & pleasure by uniting our mind, body & soul. This paper explores the multifaceted dimensions of Yoga as a holistic approach to well-being, drawing from ancient wisdom and contemporary research. Through an examination of physical, intellectual, emotional, and social aspects, the study elucidates the transformative potential of Yoga in enhancing overall health and quality of life. Key findings reveal Yoga's role in promoting physical wellness by cultivating flexibility, strength, and efficient energy utilization, while also addressing specific ailments such as diabetes, asthma, and hypertension. Moreover, the integration of Yoga into educational settings demonstrates its efficacy in enhancing cognitive function, focus, and academic performance. Emotionally, Yoga develops resilience, emotional control, and social adjustment, contributing to improved interpersonal relationships and overall happiness. Additionally, Yoga's impact extends beyond the individual, encompassing societal well-being through its promotion of harmony, respect, and discipline. While acknowledging the limitations of Yoga therapy, such as its specificity and non-diagnostic nature, the study underscores its potential as an alternative therapeutic modality. Through a synthesis of mind, body, and spirit, Yoga offers a pathway to self-discovery, inner peace, and holistic well-being, enriching lives and promoting a deeper connection to universal principles. So, let's understand the essence of Yoga as a transformative practice that transcends physical exercise, guiding individuals on a journey towards wholeness, balance, and enduring peace.

Keywords: *Yoga, holistic well-being, physical health, emotional balance, transformative practice.*

Introduction:

"Yogah Chitta Vritti Nirodhah" as said by Sage Patanjali, which means cessation of modifications of the mind. Attaining mastery over the mind helps one to lead a well-disciplined life by attaining peaceful life. It paves the path for the journey towards self-awareness. In his Yoga Sutras, Sage Patanjali quotes disease as the 1st obstacle in the process of practicing Yoga, along with mental illness. During the Vedic age, the teachings were in the form of oral transmission between teacher (Guru) and the disciple (student). As a part of it, most of the knowledge on Yoga was scattered. Sage Patanjali compiled and composed this knowledge into a book called Patanjali Yoga Sutras with 196 sutras split into 4 chapters. Hatha Yoga, which acts as a ladder to reach this Raja Yoga, has Asana, Pranayama, Mudra, Nadanusandhanam, and Mitahara as its components. Regular practice of all these elements helps us to lead a happy& healthier life.

Cause of Disease:

Biogenetic reasons, astral forces, social, genetic factors, psychotic factors, seasonal variations, natural calamities, infections, and pollutions are the common causes as per the medical sciences. As per Yoga human beings will have 3 types of sufferings namely adhyatmika (caused by Self), adhibautika(caused by society),adhidaivika(caused by nature).

Disease according to Yoga Therapy:

In terms of Yoga therapy, the disease can be understood as an imbalance in the equilibrium in the trigunas, Panchakosha, and Pancha prana. When the imbalance affects trigunas, Panchakosha, and Pancha prana, the glow, action, and stability of the body will be

disturbed. It will result in the loss of Chittaprasadanam, physical disability, doubtful ness, accident, diversion of mental faculty, associated with worry, stressful thoughts, losing hopes, fear, and unrestricted and modified restrictive systems. Such a situation can be rectified through food and Asana at the physical level, through breathing techniques, Pranayama at the respiratory level, and through meditation at the mental level. These conditions, which are detrimental to the ordinary function of the body, contribute to health problems. It is essential to make a detailed observation of food intake and regulations because" what we eat is what we are". Annamaya Kosha, pranamaya kosha, manomaya kosha are very much interconnected with the food habits of an individual, so adopting a healthy lifestyle is very important.

Preparing the Body for Therapeutic Treatment:

Before starting treatment, it's important to get the body ready. This is because people might not pay attention to their health until they feel sick. Ignoring health can lead to problems, so it's crucial to prepare the body even before checking the medical history and finding out what caused the illness. The therapist needs to check how the body looks, how stable it is, and how well it moves. They also need to see how fast the person breathes and how well their body works when active or resting. This helps figure out what energy levels are off and what's causing the problem. The therapist also checks how well the body digests food, feels hungry or thirsty, and gets rid of waste. This can be done with simple exercises like moving arms and legs, pressing palms and feet, moving the spine, and watching how breathing changes. During this stage, the therapist gets ready to deal with any challenges and adjusts the body's energy.

Scope of Yoga Therapy:

Yoga is not exclusively meant for therapeutic array, but it's also a preventive tool. It is a method for conscientious, pure, spiritual, and transcendental experience. Due to its protective efficiency of the body-mind mechanism, the same is opted to be an alternative method of therapy. The scope of Yoga therapy is very much limited to orienting the body mass through the methods like asanas, mudras, and bandhas, articulating the thoughts through the methods like pratyahara and dhyana, pacifying the emotions through the methods like introspection, purification, silence, and manipulating the energy level by pranayama, meditation, and japa of pranava, for the advantageous way of living. It can assure harmony in the social life, security in interpersonal relations, immunity in physical life, and safeguards the order of function of the biological entity of the body, for an integral, holistic, and sanctified way of living.

Limitations of Yoga Therapy:

There are many limitations for the Yoga methods to be put to use for therapeutic purposes.

1. Specificity: Yoga therapy may not be universally applicable as it is limited by factors such as age, physical condition, and gender, making it less accessible to certain populations.
2. Diagnosis: Unlike traditional medical practices, Yoga therapy does not provide specific diagnoses for certain health conditions, which may limit its effectiveness in treating complex or acute illnesses.
3. Surgery: While Yoga therapy focuses on functional aspects of the body, it may not be suitable for addressing structural issues or providing surgical interventions, limiting its scope in treating certain physical ailments.
4. Dependency on individual compliance: The effectiveness of Yoga therapy relies heavily on the practitioner's commitment to regular practice, which may be challenging for individuals with limited time, motivation, or resources.
5. Limited evidence base: Despite growing research on the benefits of Yoga therapy, there may still be gaps in scientific evidence supporting its efficacy for

certain health conditions, leading to scepticism among healthcare professionals and patients.

6. Lack of integration with conventional medicine: Yoga therapy may not always be integrated into conventional medical treatment plans, leading to fragmented care and missed opportunities for synergistic approaches to health and wellness.

It is up to the therapist along with a medical practitioner to plan the therapy which suits the individual needs.

Physical Health Benefits of Yoga:

Yoga contributes to physical health in two keyways. Firstly, it helps in achieving a well-proportioned, relaxed body that is both soft and flexible, yet capable of sudden strength when needed. This balanced body minimizes abnormalities in organs and systems, promoting overall physical wellness. Secondly, Yoga enhances the body's efficiency by utilizing energy in a controlled manner. During rest, energy consumption is low, while during activity, it is regulated. In times of stress, organs function harmoniously to supply needed energy, boosting resilience. Yoga facilitates this by harnessing inner vital energies and training organs for coordinated functioning. Regarding general physical health, research indicates that Yoga is beneficial for managing symptoms of various diseases such as diabetes, asthma, hypertension, and so on. Studies also show physiological benefits in adults, including stabilization of the autonomic nervous system, improved endocrine function, regulation of body temperature, enhanced respiratory function, and activation of alpha brain waves.

Intellectual Benefits of Yoga:

In today's education, being smart and able to think well are very important. Instead of just memorizing facts, it's more valued to be able to think and understand things deeply. From a young age, kids are taught to think logically and scientifically. Being able to analyse and connect information is a big part of being smart, and focusing well is how you show it. Researchers like Telles et al (2000) have looked into how Yoga affects thinking. They found that after just 30 days of Yoga practice, people could do better in tasks like finding their way through a maze. Other studies looked at how meditation helps thinking, and they found that when people meditated regularly before studying or taking tests, they did better in school. Meditation also helps one to focus better, as shown by Foris (2005), who studied how meditation affects focus. In their study, one group meditated for 20 minutes every day for six weeks, while another group just sat quietly for the same amount of time. The meditators improved their focus a lot, scoring much better on tests than the non-meditators.

Emotional Benefits of Yoga:

The term "emotion" originates from the Latin word "emotus," which means to move or be put in motion. In psychology, it signifies a state of excitement in an organism. Emotional behaviour is not innate; it develops over time. An individual's attitudes and feelings profoundly influence their reactions to various situations, with the entire body participating in these reactions during emotional states. There exists a reciprocal relationship between physical and emotional factors, where physical factors impact psychological growth and emotional factors influence physical growth. Just as the physical environment and various factors like food, rest, exercise, strain, fatigue, and disease affect a child's physical growth, the emotional climate, love or lack thereof, discipline, intelligence, psychological strains, and other factors affect intellectual and personality growth. Our emotions greatly influence our behaviours, especially during crucial moments. In the modern era, emotional challenges are more prevalent than ever, yet the development of emotional faculties is often overlooked in education. This neglect leads to individuals struggling with emotional conflicts, blocks, and turmoil, resulting in unrest, agony, and psychosomatic ailments. Yoga plays a crucial role in sharpening and sensitizing an

individual's emotions, expanding and diffusing emotional overtones. Meditation aids in achieving emotional control. According to BBC News (2000), Yoga helps students maintain calm nerves and remain stress-free, while the practice of Transcendental Meditation enhances emotional maturity. Yoga facilitates the regulation and transformation of blood chemistry by synthesizing neuroendocrine secretions. This process, coupled with dispassionate internal vibrations, empowers individuals to control their minds and liberate themselves from external influences, fostering a state of equanimity.

Social Adjustment:

Social adjustability and Yoga go hand in hand as a child grows and develops physically, mentally, emotionally, and socially. Body Language, emotions like jealousy and affection, and social behaviours are all intertwined. Socialization involves factors like biological characteristics, mental equipment, and emotional development.

Through socialization, children transition from self-centred infants to responsible members of society. Practices like Transcendental Meditation enhance social adjustment, self-confidence, and satisfaction, leading to improved interpersonal relationships and increased happiness. Simple Yoga postures and meditation also contribute to sociability and social maturity.

Conclusion

In conclusion, the practice of Yoga offers a comprehensive approach to enhancing physical, intellectual, emotional, and social well-being. While it has its limitations, understanding and harnessing its therapeutic potential can lead to profound transformations in individuals' lives, fostering holistic health and spiritual growth. The journey through the principles and practices of Yoga reveals a profound wisdom of holistic well-being. From its roots in ancient wisdom to its modern applications, Yoga offers a pathway to physical vitality, intellectual acuity, emotional resilience, and social harmony. While acknowledging its limitations, the transformative power of Yoga transcends mere physical exercise, leading practitioners on a journey of self-discovery and inner transformation. As we embrace the teachings of Yoga, we not only cultivate a healthier body and mind but also deepen our connection to the universal principles that govern life. Through this integration of body, mind, and spirit, Yoga illuminates a path towards wholeness, balance, and enduring peace, enriching lives, and fostering a harmonious existence in the world.

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COMPARATIVE STUDY OF MENTAL TOUGHNESS OF ATHLETES IN TRACK AND FIELD AMONG MEN AND WOMEN

Savitha
Physical Education Director
Govt. First Grade College Kaup, Udupi Dist.
Mangalore University, Email: savithatanu111@gmail.com

ABSTRACT

Athletes today have reached a high level of scientific approach both in training and technique. The performance level also ascended towards an optimum level. In this respect training methods become more scientific. The ever-increasing intensity of modern competition in sports compels the participants to demand severe mental toughness throughout the year to maintain the mental capacity to perform at peak levels. The technique and skill in competitive track and field participants require high mental toughness.

Physical education explains the importance of mental toughness as they are directly related to mental toughness programs. Mental toughness is the basis of life the growth. The value of mental toughness through physical Education sports and games is an established aspect of endless means for education as well as for mental fitness. The purpose of the study is to compare the selected psychological variables of the athletes who have represented at the pre-university level. For this purpose, twenty men and women in field events and 40 men and women in track events were selected as subjects for this study. The following psychological variable – mental toughness (ability to handle pressure, Concentration, Confidence, and Motivation) was selected. The data were statistically analyzed and examined to find out if any significant difference existed for the test conducted among the groups.

Introduction

Sports involve and imply vigorous physical activities, which lead to the perfect exhibition of skill techniques and intelligent manipulation of situations that, are involved in a game. It is vigorous, and as such it is through competitive sports.

Sports and games have attained a very great importance in the modern world. In modern times sports as a discipline have become a more competitive profession.

Sports Psychology deals with the psychology of athletes, both at rest and in action. It covers various aspects like the personality of sportsmen, psychological conditioning of sportsmen, personality dynamics of athletes, and skill acquisition.

In India, little attention has been paid to the Psychological preparation of athletes. However, the importance of concepts like Nero-muscular tension and psychotic training of athletes is recognized in Indian psychology. It is the coaches to identify the psychological causes and psychological effects of top performance. It helps to integrate the physical, and psychological aspects of sports training so that problems of coaching can be tackled in a better way. It also helps to reduce the possibility of stress and strain during a game or a match. Sports psychology as a scientific discipline and professional area furthers the understanding of the sport. It analyzes, assesses, and directs activity in all aspects of sports using psychological processes. Thus sports psychology has responsibility for well-being the attainment and maintenance of health, and the improvement of performance. Sports psychology may support the individual or group with the aim that the action the subject matter, and the requirements of the task fit with situational demands and constraints and are appropriate to the subject's abilities and needs. Most performance problems that athletes and other performers struggle with are not a result of poor condition, inadequate coaching a lack of confidence, or an inability to let off mistakes or bad breaks. Yet how

much time do you as an athlete, performer or coach spend on these issues and developing the mind of a champion? If you're a committed, dedicated performer or coach, then you work too hard and sacrifice too much to let your own or your team's competitive performance be disrupted by mental errors. The mental toughness techniques in sports psychology are just what you need to get your performance or team back on the fast track.

Mental Toughness will lead to self-belief, and self-confidence and this will enhance performance. This is the way to become a champion. Mental toughness is the ability to create and maintain positive feelings no matter how difficult the situation is. A runner to be truly successful must develop a mental capacity to excel by running through the pain and discomfort the body produces when the going gets tough. This is of course true for any runner. If athletes want to perform their best in a master's track meet, or marathon they need to develop strict mental discipline.

The five important characteristics of mental toughness that master runners can develop in their own training and racing program.

- ➢ Confidence
- ➢ Motivation
- ➢ Concentration and controlled aggression
- ➢ Anxiety management
- ➢ Relaxation

Master athletes should remember that the most important thing is to do the best that the athlete can. Runners know if they've given their all, keep the importance of competitive running in perspective. Success is not final, and failure is not fatal.

Purpose of the Study

The study aims to compare athletes' mental toughness in track and field among men and women.

Objectives of the study

- ➢ To assess the rebound ability of men and women athletes in track and field events.
- ➢ To assess the ability to handle the pressure of men and women athletes in track and field events
- ➢ To assess the concentration ability of men and women athletes in track and field events
- ➢ To assess the confidence level of men and women athletes in track and field events
- ➢ To assess the motivation of men and women athletes in track and field events
- ➢ To compare overall the mental toughness of men and women in field events

Definition and Explanation of the Terms

Athletes

- • A person who is good at sports
- • A person who competes in track and field events.

Reboundability

Bouncing back from setbacks and mistakes

Pressure

The exertion of maximum competitive efforts on the opponent, such as the pressure of a hard running attack in football.

Confidence

A person with whom you can share your feelings and secrets.

Concentration

To give attention to your mental power or your efforts towards a particular activity.

Motivation

The mental process that initiates, sustains, or guides an athlete's behavior.

Mental toughness

It is a combination of learned skills that help to raise the level of athletes' training and competitive performance.

Methodology

The mental toughness questionnaire was selected as a psychological variable for the study the reason behind selecting mental toughness is one of the important aspects for athletes to achieve higher performance.

Selection of the Subjects

The study was conducted on 40 men and women athletes in track events and 20 men and women in field events who represented at the pre-university level.

Selection of tests

Alan Goldberg developed a mental toughness questionnaire. The mental toughness questionnaire sections consist of five sections. One point is awarded for each of the questions.

Statistical techniques

To compare the mental toughness between men and women athletes of track and field events, One-way analysis of variance (one-way ANOVA) was applied to determine the difference. The F-ratio was significant. The ISO post Hoc test was used to determine the significant difference between male and female athletes in track and field.

ANALYSIS AND INTERPRETATION OF DATA

a) **Rebound ability**: the data about the Variable of rebound ability among men and women in track and field events were statistically analyzed and the result is presented in Table

TABLE -1 : One-way analysis variance for Rebound ability among men & women athletes in Track and Field at pre-University level

Source	D.F	Sum of Squares	Mean Square	F-ratio
Between groups	3	12.64	4.21	
Within groups	116	181.32	1.56	**2.69***
Total	**119**	**193.96**		

C.J (of 3, 116) = 2.68

Table -1 reveals that the obtained F-ratio 2.69 for Rebound ability is statistically significant as the F-value is more than the table value of 2.68.

Since the F-ratio was significant, the LSD post hoc test was applied to determine the paired mean difference presented in Table 2.

TABLE -2 : Post hoc analysis of mean difference of Reboundability among Men and women

| GROUPS				
Track Men	Track Women	Field Men	Field Women	Mean Differences
2.75	2.30			0.45
2.75		3.22		0.43
2.75			2.70	0.50
	2.30	3.22		0.92*
	2.30		2.70	0.40
		3.22	2.70	0.52

CJ = 0.84

This table shows that there was a significant difference in rebound ability among track women and field men.

There were no significant differences in rebound ability found in track men and women, track men and field men, track men and field women, track women and field women, and field men and field women.

The average rebound ability of men and women athletes in track and field is graphically represented in Fig. 1.

Average rebound ability of men and women athletes in track and field events.
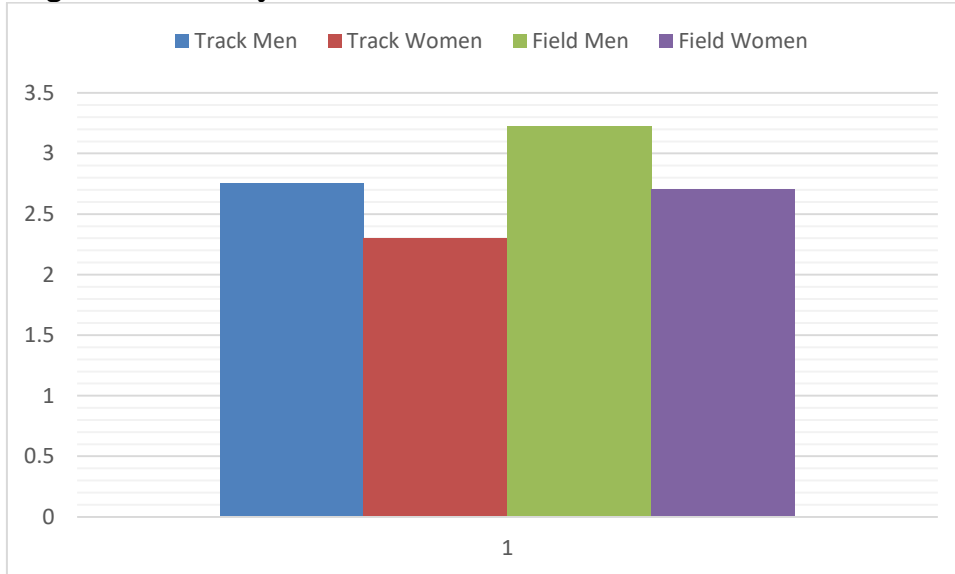
b) **Ability to handle pressure:** The data about the variable of ability to handle pressure among men and women in track & field events were statistically analyzed and the result is presented in Table 3.

TABLE -3 : One-way analysis variance for Ability to handle pressure among men & women athletes in Track and Field at pre-University level

Source	D.F	Sum of Squares	Mean Square	F-ratio
Between groups	3	10.69	3.56	
Within groups	116	129.90	1.11	**3.18***
Total	**119**	**140.59**		

C.J (of 3, 116) = 2.68

Table -3 reveals that the obtained F-ratio 3.18 for the ability to handle pressure is statistically significant as the F-value is more than the table value of 2.68.

Since the F-ratio was significant, the LSD post hoc test was applied to determine the paired mean difference presented in Table 4.

TABLE -4 : Post hoc analysis of mean difference of ability among Men and women

| GROUPS				
Track Men	**Track Women**	**Field Men**	**Field Women**	**Mean Differences**
3.65	**2.80**			**0.85***
3.65		**3.12**		**0.53**
3.65			**2.82**	**0.83***
	2.80	**3.12**		**0.32**
	2.80		**2.82**	**0.02**
		3.12	**2.82**	**0.30**

CJ = 0.79

The table reveals that there was a significant difference in the ability to handle pressure among track men and field women, track men and track women.

There was no significant difference in the ability to handle pressure found in track men and field men, track women and field men, track women and field women, and field men and field women.

The average ability to handle the pressure of men and women athletes in track and field is graphically represented in Fig. 2.

Average ability to handle the pressure of men and women athletes in track and field events.
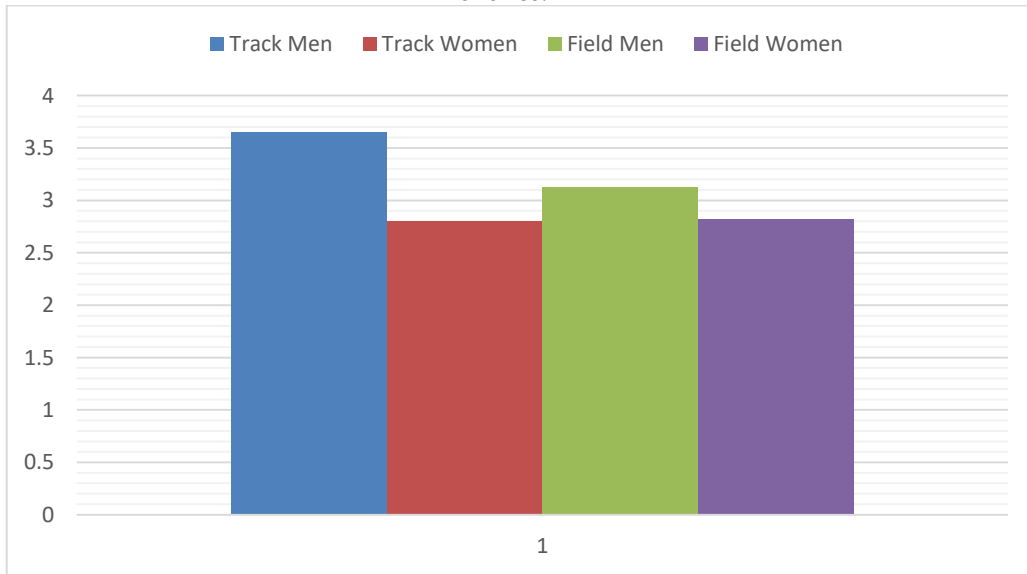
c) **Concentration**: The data about the variable of concentration among men and women in track & field events were statistically analyzed and the result is presented in Table 5.

TABLE -5 : One-way analysis variance for concentration among men & women athletes in Track and Field at pre-University level

Source	D.F	Sum of Squares	Mean Square	F-ratio
Between groups	3	11.05	3.68	
Within groups	116	241.87	2.08	
Total	119	252.92		1.76

C.J (of 3, 116) = 2.68

Table -5 reveals that the obtained F-ratio 1.76 for the concentration is statistically not significant so the F-value is less than the table value of 2.68.

d) **Confidence Ability:** The data about the variable of confidence among men and women in track & field events were statistically analyzed and the result is presented in Table 6.

TABLE -6 : One-way analysis variance for confidence among men & women athletes in Track and Field at the pre-University level

Source	D.F	Sum of Squares	Mean Square	F-ratio
Between groups	3	2.74	0.91	
Within groups	116	153.62	1.32	
Total	119	156.36		0.69

C.J (of 3, 116) = 2.68

Table -6 indicates that the obtained F-ratio 0.69 for the confidence ability is statistically not significant as the F-value is less than the table value of 2.68.

e) **Motivation**: The data about the variable of motivation among men and women in track & field events were statistically analyzed and the result is presented in Table 7.

TABLE -7 : One-way analysis variance for motivation among men and women athletes in Track and Field at the pre-university level

Source	D.F	Sum of Squares	Mean Square	F-ratio
Between groups	3	3.91	1.30	
Within groups	116	140.87	1.21	
Total	**119**	**144.79**		**1.07**

C.J (of 3, 116) = 2.68

Table -7 indicates that the obtained F-ratio 1.07 for the motivation ability is statistically not significant as the F-value is less than the table value of 2.68.

f) **Mental toughness**: The data about the variable of mental toughness among men and women in track & field events were statistically analyzed and the result is presented in Table 8.

TABLE -8 : One-way analysis variance for mental toughness among men and women athletes in Track and Field at the pre-university level

Source	D.F	Sum of Squares	Mean Square	F-ratio
Between groups	3	39.21	17.73	
Within groups	116	109.77	9.41	
Total	**119**	**1150.99**		**2.09**

C.J (of 3, 116) = 2.68

Table -8 indicates that the obtained F-ratio 2.09 for mental toughness is statistically not significant as the F-value is less than the table value of 2.68.

Findings of the study

Reboundability: This may be attributed to the fact that the players have not been trained so that they rectify the mistakes committed in a very limited time to cope with the competition experiences. In competitions, every athlete's concentration is fixed at the winning edge. Hence they have to forego mistakes whenever it is committed.

Ability to handle pressure: the reason is being since the athletes are trained mentally to be relaxed and ready to handle any kind of pressure which signifies in the competition, this is due to the athletes have to put a lot of pain and stain which is common is competition,

Concentration: this may be attributed to the fact that since they have been exposed to more competition it is clear that they are concentrated to the winning spirit.

Confidence: this may be attributed to the fact that the athletes are more confident during the pressure of competition.

Motivation: the reason behind this result is that the athletes have already been motivated by internal and external motivation. Hence they have better potential performance.

Mental Toughness: This may be attributed to the fact that both men's and women's athletes have similar psychological characteristics.

Conclusions:

- Field men were found superior in rebound ability compared to track men. Track women and field women.
- Track men were found superior in ability to handle pressure compared to track women, field women, and field men.
- All athletes' men and women are equal in concentration ability.
- All athletes' men and women are equal in confidence and ability.
- All athletes' men and women are equal in motivation ability.
- All athletes' men and women are equal in mental toughness ability.

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