



Text Book for A.P.

Intermediate First Year

Second Language : Part-II

संस्कृतम्

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Sanskrit Text

उपवाचकम्
Sanskrit Non-Detailed

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व्याकरणम्
Sanskrit Grammar



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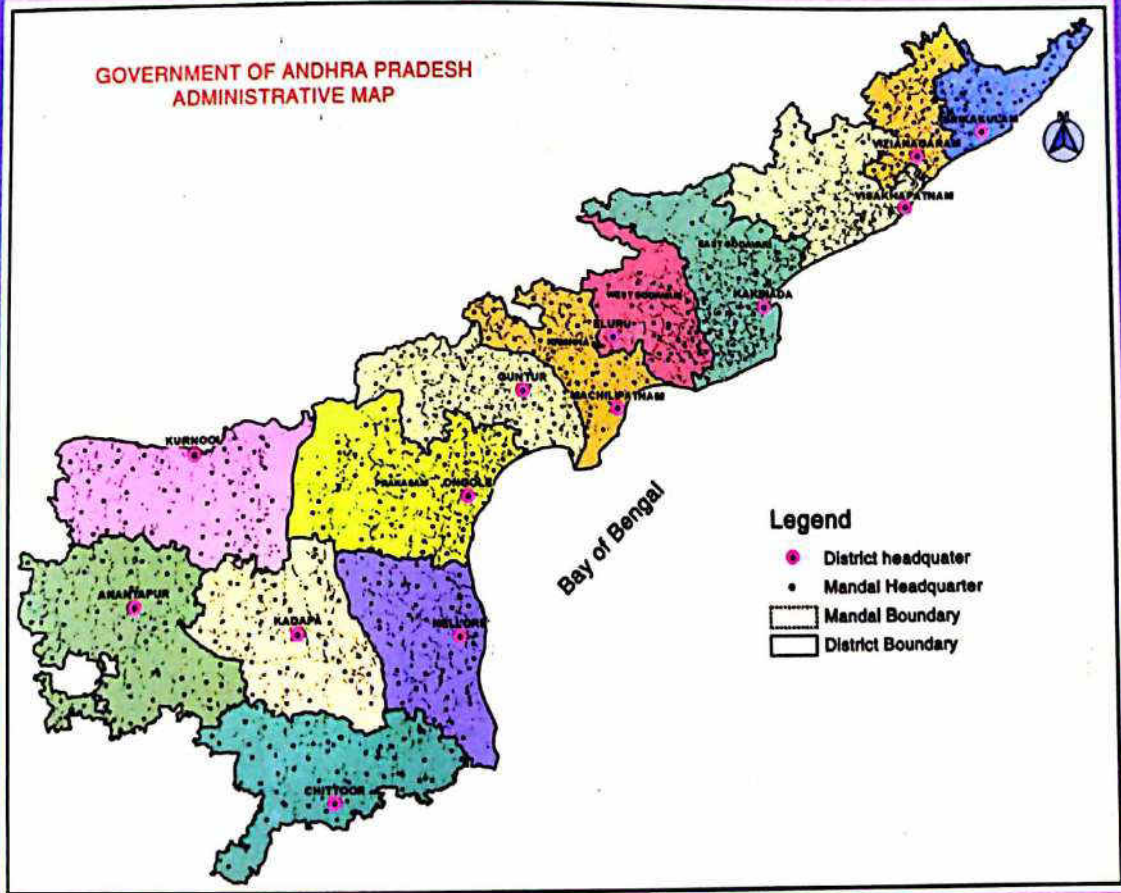
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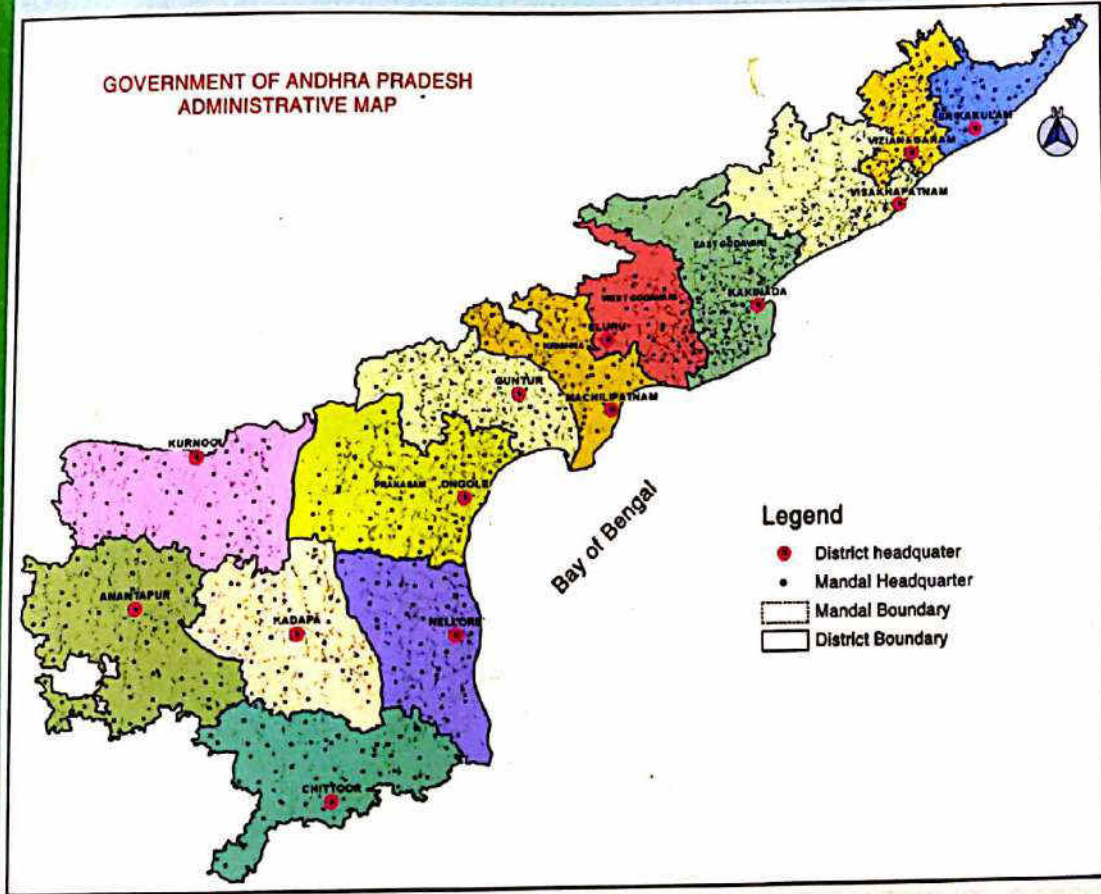
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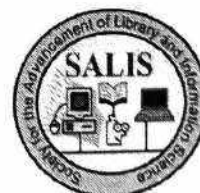
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Role of E-Journal Consortia in Higher Education with Special Reference to Engineering College Libraries

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Abstract

Indian Higher education during the last decades has undergone several changes due to research undertaken in many fields and the technology introduced and helped for being the current position. Accessing latest and updated information is possible only through the access of journal related publications which gives insight and depth of knowledge on any subject. Due to increasing cost of publications every year, publication pattern and many others, it is not possible for individual users, libraries, colleges or institutes to access all the necessary and published information in the form of both print and electronic journals and books which leads to some kind of cooperation, sharing, and consortia among all coordinating institutes. This paper suggests that the necessity and need of consortia based information procuring and various consortia approaches in higher education that to engineering college libraries.

Keywords: Higher education, e-journals, e-books, consortia, engineering college libraries

Introduction

The information explosion and inadequate funds forced the colleges or institutes to search for new methods and techniques to form consortia based approach to subscribe electronic information for marginal price. Information is being produced every day a lot and catering to the needs of the institutes fulfilling their reader's interests. Library consortium is one which an association or group of libraries formed for the purpose of fulfilling common objective. Technology has not only instrumental in addressing new applications and ways of accessing information but also has plays a fundamental role in changing the nature of information collected, stored and disseminated.

E-resources: These are publications published electronically online, CD-ROM, or in any electronic form accessing with the help of computers or any device through internet or CD-ROM. Over the last several years the publishers bringing out journals, books and other documents are transformed to both print and electronic and now only on electronic form. This has changed to various advantages and minor disadvantages. To face the challenges ahead, libraries are also changing their way of collecting information, storing and disseminating to the end user towards fulfilling the objectives of the organisation.

Type of e-resources

- E-journals (full-text or bibliographic)
- E-books,
- Online databases
- Websites

- E-Theses, Conference proceedings, Standards etc.

E-Journal Consortia: Now a day's subscription of e-journals is not easy for any single institution because the price of annual subscription is increasing every year due to various reasons. So the interested institutions or colleges came forward, interacted each other and come together fulfilling the common objective of procuring e-journals with marginalised prices to serve the user community in their institutes.

Need of the Consortium: The consortium is necessary for libraries because of Information explosion, diversity of user needs, high cost of publications, lack of self sufficiency in finance, inability to procure all the publications individually are the major reasons for joining consortia based procurement of journals, books and other reading materials in electronic form which is the only way to access the same material by number of users at a time.

Factors influencing Library Consortium: By the same time the cost of the publications, access of information and number of institutions or individuals using information is rapidly growing and the source are less because the funds are diminishing to meet the emerging needs of the information users every year. So as to fulfil the user needs and objectives of the institution, many organizations or institutions preferring for consortia approach for accessing electronic information rather than print sources for their user needs.

Different Types of Consortia: The following are some of the consortia based service agencies which provide their best possible services.

National Science Library (NSL): NSL provides services to its members, scientists and other users who access/browse and download any paper for their use from 4256 international e-journals published by various publishing companies, societies. In addition, users have access to over 2500 open access journals.

National Knowledge Resource Consortium (NKRC) :It was established in 2009 as a network of libraries and information centre sod 43 CSIR and 26 DST institutes. Today NKRC facilitates access to 5000+ e-journals of all major publishers, patents, standards, citations and bibliographic databases. The consortium envisions emerging as a leader to serve the R & D sector with much needed information to strengthen the research and development system in the country.

INDEST-AICTE Consortium: Indian National Digital Library in Engineering Sciences and Technology (INDEST) was launched by Ministry of Human Resource Development in the year 2003 on the recommendations of an expert committee appointed by the ministry. The name of INDEST Consortium has been changed as INDEST-AICTE Consortium in 2005 with the collaboration of All India Council for Technical Education (AICTE) and IIT Delhi has been executed all the activities as the consortium head quarters.

Type of Consortium

- 1). MHRD funded core group member institutes. Ex: 62 Centrally funded Govt. institutes like IISc, IITs, IIMs, NITs etc.

- 2). Members with financial support from AICTE: 60 more Govt. engineering colleges or technical institutes
- 3). Other engineering colleges or institutes: The self-finance Govt. un-aided colleges.

UGC-INFONET: University Grants Commission has formed UGC-INFONET Digital Library Consortium in December, 2003 by honourable Dr. APJ Abdul Kalam, the then President of India. The consortium provides current as well as archival access to more than 7500+ core and peer-reviewed journals and 10 bibliographic databases from 26 publishers and aggregators in different disciplines. The programme covers Universities in different phases then after added affiliated colleges and autonomous colleges.

E-ShodhSindhu: Based on the recommendations of the expert committee, MHRD has formed e-ShodhSindhu merging three consortia initiatives namely UGC-INFONET Digital Library Consortium, N-LIST and INDEST-AICTE Consortium. The e-ShodhSindhu will continue to provide current as well as archival access to more than 15000+ core and peer-reviewed journals and number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally funded technical institutes, universities and colleges.

N-LIST: National Library and Information Services Infrastructure for Scholarly Content (N-LIST) which is jointly executed by UGC-INFONET Digital Library Consortium, INFLIBNET Centre, INDEST-AICTE Consortium and IIT Delhi provides cross – subscription to e-resources subscribed by two consortia i.e. INDEST-AICTE and UGC-INFONET Digital Library Consortium and access to e-resources to colleges. As of now a total number of 2940 govt/ govt-aided colleges covered as well as un-aided colleges.

DELNET: Developing Library Network popularly known as DELNET is a National and global wide library network for resource sharing among libraries. It gives connectivity with more than 900 libraries in India and some other countries that offers access to about 50 lakhs records of books, journals, articles and other documents. It provides Inter Library Loan and Document Delivery Service to its members in and outside India. It provides 'InfoTrac Engineering Science and Technology Collection' (IESTC), an e-journal package with subsidiary price to the member institutes. This facility is provided in association with GALE Cengage Learning publishers.

NPTEL: National Programme on Technology Enhanced Learning (NPTEL) is funded by Ministry of Human Resource Development, Government of India and executed jointly by all the seven Indian Institute of Technologies and the Indian Institute of Science, Bangalore and it was developed and maintained by IIT Madras. In this, Video lectures of eminent professors from premier technical institutes like IITs and NITs are recorded. They provide video lectures to the engineering institutes and technical universities with nominal fees.

The aim of the NPTEL programme is to enhance the quality of engineering and science education in the country by developing contents for undergraduate and post-graduate curricula using video and web based courses. These courses cover the syllabi prescribed by universities and approved by AICTE. NPTEL project has currently more than 992 courses available, in which about 502

courses have been developed in video format, with each course comprising of approximately 40 or more one-hour lectures.

Advantages

There are several more advantages with consortia type subscription of e-journals which are as follows.

- Accessing wider number of electronic resources for substantial lower price
- Remote access is possible
- Immediate access without wasting time
- No transport delay
- Space can be minimised for storing information
- Archival can be accessed without wasting time
- Preservation can be easy
- Accessed round the clock at 24x7, 365 days
- No stealing, tearing or damage of materials

Disadvantages

- Large amount should be spent on infrastructure, Hardware and software
- Proper training is needed for handling and access electronic services
- Copy right problems may arise and the prior license is needed for access
- Trained technical staff is needed for guiding the users
- Continuous power supply and back up is required.
- Internet with high speed bandwidth is needed
- Reading of electronic information is not easy as much as print information

Conclusion

Due to the exorbitant rise in the cost of publications, individual institutions or organizations are not afford to procure e-journals and other electronic reading materials which resulted in the emergence of consortia based subscription with the financial contribution by each individual institution. Now it has become possible for all the institutions to procure the required material through consortia based subscription.

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SEZ - A BOON FOR ECONOMIC DEVELOPMENT

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SEZ A Special Economic Zone is a specified, delineated and duty free geographical region that has different economic laws from those of the country in which it is situated. In some of the countries SEZ is treated as deemed foreign territory. It is considered as development tool with a goal to promote rapid economic growth by using tax and business incentives to attract foreign investment and technology. As on now around 3000 SEZs are in operation in 120 countries, creating about 50 million jobs and exports over US \$600 billion. SEZ can spur employment and boost the development of infrastructure.

Most of the developing nations are going for SEZ establishment to invite FDI into its infrastructure and provide good amount of employment. As part of its continuing commitment to liberalization our Government of India also, since one decade adopted multi-pronged approach to promote foreign investment in India.

The SEZ policy first introduced in April 2000 as a part of the Export-Import (EXIM) policy in India. Foreign exchange earnings is the primary motive behind the introduction of SEZ policy in India. SEZ Act received the assent of the President of India on June 23, 2005. SEZ Act is expected to give a big push to its exports. Public-private partnership is also taken care of the formulation of SEZs.

Setting up of SEZ unit:

The Ministry of commerce and industry prepares regulations that govern the setting up and administration of the SEZ. The Union govt., is in giving notifications for establishment of SEZs and monitoring their functioning while State Govts take initiatives in establishing SEZs in their native States. SEZ Acts and Rules cover the constitution of SEZs, Services, procedures for setting up of SEZs, obligations on the part of SEZs, Dispute resolution and facilities and incentives available for SEZ units.

Approval mechanism and Administrative set up of SEZs

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Abstract

India was one of the first in Asia to recognize the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. With a view to overcome the shortcomings experienced on account of the multiplicity of controls and clearances; absence of world-class infrastructure, and an unstable fiscal regime and with a view to attract larger foreign investments in India, the Special Economic Zones (SEZs) Policy was announced in April 2000.

Approval mechanism

The developer submits the proposal for establishment of SEZ to the concerned State Government. The State Government has to forward the proposal with its recommendation within 45 days from the date of receipt of such proposal to the Board of Approval. The applicant also has the option to submit the proposal directly to the Board of Approval.

The Board of Approval has been constituted by the Central Government in exercise of the powers conferred under the SEZ Act. All the decisions are taken in the Board of Approval by consensus. The Board of Approval has 19 Members.

Administrative set up

The functioning of the SEZs is governed by a three tier administrative set up. The Board of Approval is the apex body and is headed by the Secretary, Department of Commerce. The Approval Committee at the Zone level deals with approval of units in the SEZs and other related issues. Each Zone is headed by a Development Commissioner, who is ex-officio chairperson of the Approval Committee.

Once an SEZ has been approved by the Board of Approval and Central Government has notified the area of the SEZ, units are allowed to be set up in the SEZ. All the proposals for setting up of units in the SEZ are approved at the Zone level by the Approval Committee consisting of Development Commissioner, Customs Authorities and representatives of State Government. All post approval clearances including grant of importer-exporter code number, change in the name of the company or implementing agency; broad banding diversification, etc. are given at the Zone level by the Development Commissioner. The performances of the SEZ units are periodically monitored by the Approval Committee and units are liable for penal action under the provision of Foreign Trade (Development and Regulation) Act, in case of violation of the conditions of the approval.

SPECIAL ECONOMIC ZONES IN INDIA

Puvvula UmaMaheswari, Lecturer in English, SVSSC GDC, Sullurpet.

Abstract

India's Special Economic Zones (SEZ) policy, announced in April 2000, has been the single most important initiative ever taken by the Indian government to promote private investment in industrial activity. It is not the first time that India has tried to develop its SEZs. The first wave of export zones started in 1965 and ended in 2000 with little success. The prospects are better this time. The current policy targets private investment in SEZ development and offers several lucrative incentives and features that were not available in previous initiatives.

The SEZs were promoted by Commerce Minister Kamal Nath as creating a large flow of foreign and domestic investment that would bridge the gap between China and India in infrastructure and exports, and create massive employment opportunities. The Congress party-led government sought to attract companies to the zones by exempting them from licenses and duties on imported goods and allowing the free repatriation of profits. The commerce ministry's web site described the SEZs as "designated duty free enclaves to be treated as foreign territory for trade operations and duties and tariffs".

In addition, the government offered companies operating in SEZs a tax holiday for the first five years and a 50 percent tax reduction for the next five years. SEZ developers receive ten years tax-free. Although the commerce ministry continues to tout the zones, the International Monetary Fund, India's finance ministry and the Reserve Bank of India have criticised the policy in recent weeks. All have pointed to hundreds of proposed or approved SEZs that are far too small to improve India's performance in the long term. These SEZs have proved to be little more than tax loopholes for real estate speculators and developers.

SPECIAL ECONOMIC ZONE

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ABSTRACT

The shortcomings experienced on account of the multiplicity of world-class infrastructure, and an unstable fiscal regime and with a view to attract larger foreign investments in India, the special economic zones (SEZs) policy was announced in April-2000.

THE SEZ RULES PROVIDE FOR :

- *Simplified procedures for development, operation and maintenance of the special economic zone and for setting up units and conducting business in SEZs.
- *Single window clearance for setting up of an SEZ.
- * Single window clearance for setting up of a unit in a SEZ.
- * Single window clearance for setting up of an matter relating to central as well as state Government.
- *Simplified compliance procedures and documentation with an emphasis on self certification.

BENEFITS:

Because of SEZs, more economic activity is generated, more employment, investment, gains can be achieved.

When the employment opportunities increase individual poverty will be reduced. Another benefit, regional imbalances will also be reduced.

DEMERITS:

- * Revenue losses because of the various Tax exemptions and incentives.
- * Traders are interested in SEZ, so that they can acquire land at cheap Rates and create a land bank for themselves.
- * The number of units applying for setting up EOUs not commensurate to the number of Applications for setting up SEZs leading to belief that this project may not match up to expectations

ROLE OF SEZs IN EMPLOYMENT GENERATION

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ABSTRACT

Employment generation has been the chief objective behind development of these SEZs. SEZs are viewed as highly effective tools for job generation. The employment effect of SEZs is analyzed through the following three channels: 1. Direct Employment Generation, 2. Indirect Employment Generation, 3. Women Employment Generation.

'Employment generation' has been the most important channel through which SEZs lend themselves to human development concerns, in India. Employment generated by zones is remunerative. Wage rates are not lower than those prevailing outside the zones. Besides, working conditions, non monetary benefits (such as transport, health and food facilities), incentive packages and social security systems are better than those prevailing outside the zones, in particular, in the small/informal sector.

Employment generation, both direct and indirect, has thus far been the most important channel, through which SEZs have impacted on human development and poverty reduction in India. With the SEZ Act in place, there has been a surge in the establishment of new zones, which is likely to generate huge employment potential in the economy. Much of this will be a net addition to employment as investment relocation/diversion in export oriented production is likely to be limited.

Zones have proven to be particularly beneficial to female employment. SEZs have opened up opportunities for wage employment for women in the formal sector, thereby increasing their employability as well as improving their position in the household. This is an important contribution of zones because female employment is crucial for equitable growth.

It is concluded that SEZs are providing direct employment, indirect employment and employment to women work-force in India. Though their share in manufacturing sector employment is marginal but they are playing an important role in employment generation in India. The key objective of economic development is to enhance human capabilities. But for this potential to be realized, the government must devise strategies to strengthen the opportunities that are likely to emerge, protect interests of the SEZ workers, and forge linkages between SEZs and the domestic economy.

SPECIAL ECONOMIC ZONE

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The Special Economic Zone (SEZ) policy in India first came into inception on April 1, 2000. The prime objective was to enhance foreign investment and provide an internationally competitive and hassle free environment for exports. The idea was to promote exports from the country and realising the need that level playing field must be made available to the domestic enterprises and manufacturers to be competitive globally.

A legislation has been passed permitting SEZs to offer tax breaks to foreign investors. Over half a decade has passed since its inception, but the SEZ Bill has certain drawbacks due to the omission of key provisions that would have relaxed rigid labour rules. This has lessened India's chance of emulating the success of the Chinese SEZ model, through foreign direct investment (FDI) in export-oriented manufacturing.

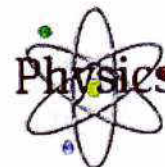
The policy relating to SEZs, so far contained in the foreign trade policy, was originally implemented through piecemeal and ad hoc amendments to different laws, besides executive orders. In order to avoid these pitfalls and to give a long-term and stable policy framework with minimum regulation, the SEZ Act, '05, was enacted. The Act provides the umbrella legal framework, covering all important legal and regulatory aspects of SEZ development.

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This is to certify that Prof./Dr./Mr./Ms. V. RAJA, Associate Professor in Physics of N.B.K.R. Science and Arts College, Vidyanagar, SPSR Nellore District attended and gave ☒ Invited Talk / ☐ Oral / ☐ Poster presentation entitled K⁺ ion based polymer electrolytes for solid state Battery applications (Oral 09)

in the National Symposium on Advanced Functional Materials and their Applications (NSAFMA-2018) held at Department of Physics, Rajeev Gandhi Memorial College of Engineering and Technology (Autonomous), NANDYAL - 518501, Kurnool District of Andhra Pradesh, India.


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Role of Electronic Media in Promoting Reading Habits among Children in Nellore District of Andhra Pradesh – A Case Study

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Abstract

Progress depends on positive changes in our environment. This is also true when it comes to acquiring media and knowledge. In the past, we used print media for this purpose. But now, we are living an era of technical revolution in all areas of human activity. Therefore, we need to turn to print media and move forward. Investigator conducted a survey on electronic media in promoting reading habits among children. The population of this study consists of children studying from 7th class to 10th class in the high schools of Nellore district of Andhra Pradesh. The questionnaire method is used about the reading habits of children. Aim of the paper to knowing the influence of electronic media on the reading habits of children.

Key words: Electronic Media, Reading Habits, Television, Cinema, Andhra Pradesh

1. Introduction

Progress depends upon positive changes in our environment. It is also true with regard to the means of communication and acquisition of knowledge. In the past we used to depend upon print media for this purpose. But now we are living an age of technical revolution in every field of human activity. Hence we have to switch over to the electronic media from print media and march forward. In this connection we should be careful about an important aspect in this regard. Any change will have both positive and negative aspects. Our forward march will be successful only when we tap the positive benefits of such changes. It is the same with regard to electronic media also.

2. Definition

Electronic media are media that use electronics or electromechanical audience to access the content. Any equipment used in the electronic communication process includes television, radio, telephone, desktop computer, game console and handheld device. According to the cite Broadcast or storage media that take advantage of electronic technology may include television, radio, Internet, fax, CD-ROMs, DVD, and any other medium that requires electricity or digital encoding of information. The term 'electronic media' is often used in contrast with print media".

3. Need for the Study

It may appear that the need for studying the reading habits of children is only a small aspect, but actually it has momentous consequences on the thinking of the children and their behaviour in life. In fact, they are the builders of the nation and as such their behaviour, as influenced by reading habits, has a tremendous potential. That is why the great savant and administrator, Rajaji has described children as the bricks that form the foundation of the national mansion. That is why there is a pressing need to create book culture and reading habits among children as well as to create fondness for books and reading at a tender age.

4. Area and Scope of the Study

We have undertaken a study of the reading habits of the children in the schools of Nellore District, Andhra Pradesh with reference to the Electronic Media. The present study is undertaken

so that a right perspective about reading can be obtained. It endeavours to find out the effective methods to improve the rate of reading as well as the degree of comprehension in school children. The researcher has undertaken to study the personal background of the children, school library environment, public library environment, general reading habits of children, the role of teachers, parents and librarians in the promotion of reading habits. The onslaughts of the electronic media also are taken into consideration. The researcher believes that there is an urgent need to conduct a study about the reading habits of children.

5. Methodology

The questionnaire method is used about the reading habits of children consisting of 54 Questions as a whole. 4 questions are aimed at knowing the influence of electronic media on the reading habits of children. They are:

1. Do you watch Television regularly? Yes/No
2. If yes, how many hours do you spend in watching Television daily on an average?
A. 1 hour B. 2 hours C. 3 hours D. More than 3 hours
3. Do you think that watching TV is an obstruction to your reading? Yes/No
4. Do you think that watching movies is an obstruction to your reading? Yes/No

5.1 Selection of Sample

The population of this study consists of children studying from 7th class to 10th class in the high schools of Nellore district of Andhra Pradesh. Sampling is carried out in this study at two different stages. At the first stage, high schools were sampled. There are three revenue divisions in Nellore district. They are Nellore, Kavali and Gudur.

There are 384 high schools in the three revenue divisions (Nellore, Kavali and Gudur) of Nellore District. To represent all revenue divisions, 14 schools were selected from each revenue division by simple random method. Hence, a total of 42 schools were selected from the three revenue divisions using stratified random sampling. At the second stage, children also were sampled and selected. As the children studying in those 42 schools were large in terms of time, money and efforts, the investigator selected a sample of 24 children from each school by simple random method. A total of 1,008 children were selected from 42 high schools as sample.

The distribution of children according to their gender is shown in Table 1

Table 1: Distribution of children according to their gender

S.No.	Gender	Children	Percentage
1	Boys	510	50.6
2	Girls	498	49.4
Total		1008	100

It is obvious from Table 1 that over a half of children (56.6%) are boys and 49.4% of them are girls. The table shows that the boys and girls are almost equally represented in the sample.

6. Influence of Television on Reading

Modern electronic media have engulfed every aspect of human life. Specially, electronic media like TV and cinemas have been greatly influencing all the members of a family including children. Since the children are in a formative age, such influence affects not only the child's future career but also the fortunes of the society around. Hence, the children are asked to reply

about the time they spend in watching TV and the frequency of their visit to the cinema theatre. The children are also asked to mention whether they regard TV and cinemas as an obstruction to their reading. Their replies were analysed and interpreted in this section.

6.1. Watching television

In modern times, television is a house-hold gadget of recreation. But it should be noted that television is both a curse and a blessing. On the negative side, television kills the time of children and exposes them to undesirable knowledge, programmes and pictures. On the positive side, television is a real blessing. Some of the advantages of the television to the children are video lessons and visual presentation of places, scenes, leaders, scientists, great literary people and other great personalities of the past and the present. Television also is a good source for recreation for children. Hence, a question has been put to the children whether they watch television regularly. The replies given by them are shown in Table 2.

Table 2: Distribution of children according to their gender, medium, area and replies with regard to watching of Television

Reply	Gender		Medium		Area		Total
	Boys	Girls	English	Telugu	Rural	Urban	
Yes	359 (70.4%)	415 (83.3%)	249 (87.1%)	525 (72.7%)	375 (67.2%)	399 (88.7%)	774 (76.8%)
No	151 (29.6%)	83 (16.7%)	37 (12.9%)	197 (27.3%)	183 (32.8%)	51 (11.3%)	234 (23.2%)
Total	n=510 (100)	n=498 (100)	N=286 (100)	n=722 (100)	n=558 (100)	n=450 (100)	n=1008 (100)
	$\chi^2 = 23.200$ d.f. = 1 T.V. = 3.84 Sig. at .05 level		$\chi^2 = 23.373$ d.f. = 1 T.V. = 3.84 Sig. at .05 level		$\chi^2 = 63.747$ d.f. = 1 T.V. = 3.84 Sig. at .05 level		

It is evident from Table 2 that majority of the children (76.8%) replied that they watch television regularly and the remaining of them (23.2%) replied negatively in this regard. There is a significant difference in the replies of boys and girls with regard to watching television regularly. It is indicated by chi-square value, which is significant at 0.05 level with one degree of freedom. It means that more number of girls watch television regularly compared to boys. There is a significant difference in this regard between the English and the Telugu Medium children as indicated by chi-square value, which is significant at 0.05 level with one degree of freedom. It means that more number of English medium children watch television regularly compared to Telugu medium children.

There is a significant difference in this regard between the rural and the urban children as indicated by chi-square value which is significant at 0.05 level with one degree of freedom. It means that more number of urban children watch television regularly compared to rural children.

6.2. Time spent in watching Television

Children watch Television continuously without doing their main duties. A question has been posed to those children, who watch television regularly, to know the number of hours they spend in watching television. The replies given by them are shown in Table 3

Table 3: Distribution of children according to their gender, medium, area and replies with regard to the time spent in viewing television

Reply	Gender		Medium		Area		Total
	Boys	Girls	English	Telugu	Rural	Urban	
1 Hour	210 (58.5%)	276 (66.5%)	140 (56.2%)	346 (65.9%)	232 (61.9%)	254 (63.7%)	486 (62.8%)
2 Hours	84 (23.4%)	98 (23.6%)	62 (24.9%)	120 (22.9%)	96 (25.6%)	86 (21.6%)	182 (23.5%)
3 Hours	41 (11.4%)	29 (7.0%)	29 (11.7%)	41 (7.8%)	33 (8.8%)	37 (9.2%)	70 (9.0%)
More than three hours	24 (6.7%)	12 (2.9%)	18 (7.2%)	18 (3.4%)	14 (3.7%)	22 (5.5%)	36 (4.7%)
Total	n=359 (100)	n=415 (100)	n=249 (100)	n=525 (100)	n=375 (100)	n=399 (100)	n=774 (100)
	$\chi^2 = 12.109$ d.f. = 3 T.V. = 7.815 Sig. at .05 level		$\chi^2 = 10.814$ d.f. = 3 T.V. = 7.815 Sig. at .05 level		$\chi^2 = 2.810$ d.f. = 3 T.V. = 7.815 Not Sig.		

It is evident from Table 4.52 that majority of the children (62.8%) spend on an average one hour per day in watching television, 23.5% of them spend two hours, 9.0% of them spend for three hours and 4.7% of them spend more than three hours per day in watching television.

There is a significant difference between boys and girls in the amount of time spent in watching television. It is indicated by chi-square value, which is significant at 0.05 level with three degrees of freedom. That means girls are spending more time in watching television compared to boys. There is also a significant difference between the English and Telugu medium children in the amount of time spent in watching television. This is indicated by chi-square value, which is significant at 0.05 level with three degrees of freedom. Telugu medium children are spending more time in watching television compared to English medium children. However, there is no significant difference between rural and urban children in the amount time spent in watching television. It is indicated by chi-square value, which is not significant at 0.05 level with three degrees of freedom.

7. Findings

1. Majority of the children (76.8%) replied that they watch television regularly and the remaining of them (23.2%) replied negatively in this regard. More number of urban children watch television regularly compared to the rural children.
2. Majority of the children (62.8%) spend on an average one hour per day in watching television and 23.5% of them spend two hours.
3. Majority of the children (54.2%) feel that watching television is an obstruction for their reading and 45.8% of them feel that watching television is not an obstruction for their reading.
4. Majority of children (56.9%) said that watching movies affects their reading, while 43.1% of them said that watching movies does not affect their reading.

8. Suggestions

With regard to the relationship between the reading habits of children and print media the following suggestions may be taken into consideration.

1. Instruction classes may be arranged where the children are taught about the positive as well as the negative aspects of the electronic media.
2. Children should be advised by teachers and parents to reduce their time spent on watching television every day. Children should be advised to watch news items and educational programmes rather than cinemas and serials broadcast by various channels.
3. All the children should realize that continuous watching movies will affect their educational career as well as their eye sight. Children should be motivated by parents, teachers and librarians to minimize the amount of time they spend in watching movies in order to reduce health hazards and promote educational progress.
4. Parents should set out time for watching television, playing video games and chatting with friends and also surfing the internet so as to avoid distraction from the electronic media.

9. Conclusion

Since electronic media has become to stay inevitable, we have to smoothly adapt to the new conditions without severing our connections with the old roots. It need not be emphasized that with the disappearance of reading habits from our lives, our value system, richness of life and humane nature also will disappear. We have to strike a balance between the benefits of electronic media and its harmful aspects and the customary reading habits and traditional values. It should be a golden mean. As Loan says, we should very careful about these "Time Eating Machines".

महाभारते शान्तिपर्वणि भार्याप्रशंसा - परिशीलनम्

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“यत्र नार्याः प्रपूज्यन्ते तत्र तिष्ठन्ति देवताः”, “यथा भूमिस्तथा नारी तस्मात् तां न दूषयेत्”, “न मातुः परदैवतम्”, “मातृ देवो भव” इत्यादि संस्कृतवाक्यानि संस्कृतवाङ्मये स्त्रीणां स्थानं प्रकटीकुर्यन्ति।

“परन्धीणां चेतः कुसुमसुकुमारं हि भवति” इति उत्तररामचरितवाक्यमनुसृत्य नारीणां चेतः कुसुमसुकुमाराः इति अवगम्यते। अत एव स्त्रीषु दारुणं कर्म कर्तुं सुजनाः नेच्छन्ति। एतदेवोक्तं वाल्मीकिरामायणे - “न हि स्त्रीषु महात्मानः क्वचित् कुर्वन्ति दारुणम्”। महाभारतेऽपि अनुशासनपर्वणि “न स्त्रियम् अवजानीयात्” इत्युक्तम्। एवं रीत्या प्राचीनसंस्कृतवाङ्मयेऽपि स्त्रीणां विषये महत्त्वपूर्णं स्थानं विद्यते।

महाभारतम् -

भारतीयसंस्कृतेः सदाचारस्य च मूलस्तम्भः वेद एव भवति। वेदानां बहुजनप्रचारार्थं सामान्यजनानां हितार्थं च इतिहासपुराणानाम् आविर्भावः अभूत्। अत एव भगवान् व्यासमहर्षिः अष्टादशपुराणानि, श्रीमन्महाभारतं च व्यरचयत्।

धर्मं चार्थं च कामे च मोक्षे च भरतर्षभ ।

यदीहास्ति तदन्यत्र यन्नेहास्ति न तत् क्वचित् ॥

इत्यनेन श्लोकेन महाभारतवैशिष्ट्यम् अवगन्तुं शक्यते। अत एव महाभारतं पञ्चमवेदत्वेन स्थानम् अलभत।

महर्षिवमन्थनेन चतुर्दशरत्नानि समुपजातानि। परन्तु महाभारतम् इति महोदधिसमालोढनेन असंख्याकानि नित्यनूतनानि समर्थानि रत्नानि समुद्भूतानि इति सुकृतिनः विदन्त्येव। विश्ववाङ्मये न किमपि ग्रन्थरत्नं तादृशं विद्यते, यत् एतदीयतुलनां समारोढुं शक्नोति। महाभारततुहिनाद्रेः निर्गतानि मधुरमधुराणि रसप्रवाहपूरितानि परःशतानि महाकाव्यनाटकाख्यायिकादि स्रोतांसि गीर्वाणवाणीसाहित्यं परिप्लावयन्ति।

यथा समुद्रो भगवान् यथा च हिमवान् गिरः।

ख्याताबुधौ रत्ननिधी तथा भारतमुच्यते॥

महाभारते अष्टादशाध्यायाः सन्ति। तेषु अन्यतमं शान्तिपर्यम्। शान्तिपर्यणि धर्मविचारः विस्तरेण कृतः। तत्र शरणागतपालनधर्मविचारसन्दर्भं कपोतवृत्तान्तकथनसमये चतुर्धत्वारिंशदधिकशततोऽध्याये (144) भार्यायाः महत्त्वमुद्दिश्य सम्यक् निवेदितम्। धर्म-अर्थ-कामेषु भार्या एव पुरुषस्य सहायकारिणी भवति।

भार्याप्रशंसा -

एकस्मिन् वने पापात्मा लुब्धकः विहङ्गान् बध्वा तान् विक्रयं कृत्वा जीवनं यापयति स्म। सः कदाचित् वने अटनसमये महावृष्टिः सञ्जातः। तदा शीतार्तः सः लुब्धकः गन्तुमशक्तः सन् तत्र स्थितः। प्राणयात्रार्थमागताम् एकां कपोतीं दृष्टवान्। सापि शीतार्ता गन्तुमशक्ता भयविह्वला भूत्वा तत्रैव स्थिता। पापात्मा लुब्धकः तां बध्वा स्वपञ्जरे निक्षिप्तवान्।-

दृष्ट्वाऽऽर्तोऽपि हि पापात्मा स तां पञ्जरकेऽक्षिपत्।

स्वयं दुःखाभिभूतोऽपि दुःमेवाकरोत् परे॥

अनन्तरं शीतार्तः सः ततः निशाकारणात् गन्तुमशक्तः सन् तत्रैव वृक्षमूले शिलायां शिरः कृत्वा भूतले पर्णान्यास्तीर्य स्वपितवान्।

कपोतः सूर्यास्तमनानन्तरमपि अनागतां पत्नीमुद्दिश्य बहुधा चिन्तितवान्। मे प्रिया कुतः नागच्छति? महत् वर्षमपि आसीत् केन कारणेन सा एतावत्पर्यन्तमपि नागता? मम प्रियायाः कानने किमपि न भवेत् किल? यदि किमपि भवेत् चेत् भार्याविरहितं मम गृहं शून्यमेव भवेत्।

वातवर्षं महच्चासीन्न चागच्छति मे प्रिया।

किं नु तत्कारणं येन साऽद्यापि न निवर्तते॥

अपि स्वस्ति भवेत्तस्याः प्रियायाः मम कानने।

तथा विरहितं हीदं शून्यमद्यगृहं मम॥

कपोतः भार्यायाः महत्त्वमुद्दिश्य एवं कथयति। पुत्र, पौत्र, वधू, भृत्यादिभिः आकीर्णमपि भार्याविहीनं गृहं शून्यगृहमेव भवति। गृहिणीहीनं गृहम् अरण्यसदृहं भवति। यतो हि गृहिणी गृहमुच्यते किल।

पुत्रपौत्रवधूभृत्यैराकीर्णमपि सर्वतः।

भार्याहीनं गृहस्थस्य शून्यमेव गृहं भवेत्॥

न गृहं गृहमित्याहुः गृहिणी गृहमुच्यते।

गृहं तु गृहिणीहीनम् अरण्यसदृशं मतम्॥

चित्राङ्गी, मधुरस्वरा मम कन्ता अद्य नायाति चेत् जीवितेन प्रयोजनमेव मम नास्ति। यदि नाहं भोजनं करोमि सापि न करोति। यदि अहं स्नानं न करोमि सापि न करोति। यदाहम् उपविशामि तदा एव सापि उपविशति। यदाहं शयनं करोमि तदैव सापि शेते। यदाहं हृष्टः भवामि सापि हृष्टा भवति। यदाहं दुःखितो भवामि सापि दुःखिता भवति। यदि कृद्धो भवामि चेत् सा मां शान्तयितुं प्रियवादिनी भवति।

न भुङ्क्ते मय्यभुङ्क्ते या नास्नाते स्नाति सुगता।

नातिष्ठत्युपतिष्ठेत् शेते च शयिते मयि॥

हृष्टे भवति सा हृष्टा दुःखिते मयि दुःखिता।

प्रोषिते दीनवदना क्रुद्धे च प्रियवादिनी॥

भर्ता श्रान्तश्चेत्, तथैव क्षुदार्तः भवति चेदपि भार्या एव ज्ञातुं शक्नोति। सा सर्वदा भर्तारं अनुरागयुक्ता, स्थिरमना, भक्ता, स्निग्धा, यशस्विनी च भवति। दयितया सह वृक्षमूले निवासः अपि तद् गृहमेव भवति। तथा हीनः प्रासादवासः अपि कान्तार सदृशः भवति।

सा हि श्रान्तं क्षुदार्तारं च जानीते मां तपस्विनी।

अनुरक्ता स्थिरा चैव भक्ता स्निग्धा यशस्विनी॥

वृक्षमूलेऽपि दयिता यस्य तिष्ठति तद्गृहम्।

प्रासादोऽपि तथा हीनः कान्तार इति निश्चितम्॥

भार्या पुंसां धर्म-अर्थ-कामेषु सहायिनी भवति। सकलशास्त्राः अपि पुरुषस्य भार्या हि परमो धर्मः इत्येव कथयन्ति। अस्मिन् लोकयात्रा सहायिनी भार्या एव भवति। रोगाभिभूतस्य तथा कृच्छ्रगतस्य आर्तस्य पुरुषस्य भार्यासमं भेषजं किञ्चिदपि नास्ति। भार्या समः बन्धुः नास्ति। भार्या समः गतिः नास्ति। धर्मसङ्ग्रहे भार्या समः सहायकः नास्ति।

भार्या हि परमो ह्यर्थः पुरुषस्येह पठ्यते।

असहायस्य लोकेऽस्मिन् लोकयात्रा सहानी॥

तथा रोगाभिभूतस्य नित्यं कृच्छ्रगतस्य च।

नास्ति भार्या समं किञ्चिन्नरस्यार्तस्य भेषजम्॥

नास्ति भार्यासमो बन्धुः नास्ति भार्या समा गतिः।

नास्ति भार्यासमो लोके सहायो धर्मसङ्ग्रहे॥

साध्वी, प्रियवादिनी च भार्या नास्ति चेत् अरण्यगमनमुत्तमम्। यतो हि तस्य, गृहस्य अरण्यस्य व्यत्यासमेव न भवति।

यस्य भार्या गृहे नास्ति साध्वी च प्रियवादिनी।

अरण्यं तेन गन्तव्यं यथाऽरण्यं तथागृहम्॥

एवं कपोतमुखात् कपोती प्रशंसनद्वारा, गृहे भार्यायाः स्थानम्, जीवने पुरुषस्य भार्यायाः महत्त्वम्, धर्म-अर्थ-काम-मोक्षाख्यपुरुषार्थसाधने गृहिण्याः प्राधान्यम्, सम्यक् निरूपितं महाभरते।

उपयुक्तग्रन्थसूची -

१. श्रीमन्महाभारतम्, शान्तिपर्व, द्वितीयो भागः।
२. संस्कृतसूक्तिरत्नाकरम् - आचार्य. रत्वा श्रीहरि।



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स्तावना

सकलशास्त्रपारङ्गतः, लोकव्यवहारज्ञानसम्पन्नः, सामाजिकसम्बन्धविश्लेषकः, पशुपक्ष्यादीनां मानवानां च मनस्तत्त्ववेत्ता, राजनीतिकुशलः, छात्राणां कृते नैतिकांशानां बोधने असमानप्रतिभाशाली विष्णुशर्मा संस्कृतवाङ्मये नीतिकथासाहित्यस्य प्रमुखः स्रष्टा। कथाकथनचतुरेण अनेन विष्णुशर्मणा पञ्चतन्त्रनामकं सुप्रसिद्धं नीतिकथाग्रन्थं विरचितम्। पञ्चतन्त्रं विश्वेस्मिन् प्रमुखासु प्रपञ्चभाषासु नूतनमित्येव अस्य ग्रन्थस्य औन्नत्यं ज्ञापयति।

पञ्चतन्त्ररचनासन्दर्भ

अमरशक्तिर्नाम राजा महिलारोप्यं नाम नगरं पालयति स्म। तस्य बहुशक्तिः, उग्रशक्तिः, अनन्तशक्तिः इति नामानः परमदुर्मेधसः त्रयः पुत्राः आसन्। लोकज्ञानरहितान्, शास्त्रपरान्मुखान् पुत्रान् पश्यतः अमरशक्तेः महदपि राज्यं न सौख्यम् आतनोति। राज्ञः बाधां दृष्ट्वा मुख्यामात्याः, तान् राजपुत्रान् ज्ञानसम्पन्नान्, राजनीतिकुशलान् च कर्तुम्, सकलशास्त्रपारङ्गतम्, लब्धकीर्तिं विष्णुशर्माणम् अध्यापकत्वेन सूचितवन्तः। तदा राजा विष्णुशर्माणम् आहूय तस्य सकाशं सादरं स्व पुत्रान् अध्ययनार्थं प्रेषितवान्। विष्णुशर्मा तेषां कृते १. मित्रभेद, २. मित्रप्राप्ति - ३. काकोलूकीय, ४. लब्धप्रणाश, ५. अपरीक्षितकारकम् चेति पञ्चतन्त्राणि विरच्य, तान् पाठितवान्।

सकलार्थशास्त्रसारं जगति समालोक्य विष्णुशर्मदम्।

तन्त्रैः पञ्चभिः एतच्चकार सुमनोहरं शास्त्रम्॥ (पं. त. 1-3)

तेऽपि तानि अधीत्य मासषट्केन यथोक्ताः संवृत्ताः। ततः प्रभृति पञ्चतन्त्रं नाम नीतिशास्त्रं बालावबोधनार्थं लोके प्रवृत्तम्।

संस्करणशब्दार्थ

संस्क्रियते अनेन इति विग्रहे सम् पूर्वकात् कृञ्-धातोः करणे अर्थे “करणाधिकरणयोर्युट्” इति सूत्रेण ल्युट्-प्रत्यये, “युवोरनातौ” इति सूत्रेण यु इत्यस्य अनादेशे, “संपरिभ्यां करोतौ भूषणे” इति सूत्रेण भूषणे अर्थे सुडागमे संस्करणम् इति रूपं भवति।

येन साधनेन (=क्रियया, साहित्येन, शास्त्रेण, धर्मोपदेशेन, उद्यमद्वारा वा) मानवसमाजस्य समीचीनम्, उपयोगकरं यत्किञ्चित् क्रियते तद् संस्करणम् इत्युच्यते। तत्र भूषणे अर्थे एव सुडागमः भवति।

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यथा - संस्कृतिः, संस्कृतम्, संस्करणम् इत्यादि। भूषणार्थः नास्ति चेत् सुडागमः न भवति। तदा संस्कृतिः इत्यादि भवति।

पञ्चतन्त्रे संस्करणाद्वक्पथम्

पञ्चतन्त्रे व्यवहारज्ञानरहितान् अमरशक्तेः त्रयः पुत्रान् प्रति मित्रभेद, मित्रप्राप्ति - काकोलूकीय, लब्धप्रणाश, अपरीक्षितकारकं चेति पञ्चतन्त्राणि सुबोध्य, तान् संस्कृत्य नीतिशास्त्रपारङ्गतान् कृतवान् अनेन पञ्चतन्त्रे विष्णुशर्मणा अनपेक्षितव्यक्तित्वतः अपेक्षितव्यक्तित्वनिर्माणद्वारा संस्करणं कृतवान् अतः पञ्चतन्त्रे संस्करणाद्वक्पथं सुस्पष्टं अवगन्तुं शक्यते।

व्यक्तित्वसंस्करणम्

अमरशक्तिः शास्त्रविमुखान् स्व पुत्रान् अवलोक्य सचिवान् आहूय तान् प्रति- “भोः जातममं भवद्भिः यत् मम एते पुत्राः शास्त्रविमुखाः, विवेकरहिताश्च. तदेतान् पश्यतो मे महदपि राज्यं सौख्यमावहति।

अथवा साध्विदमुच्यते-

अजातमृतमूर्खेभ्यो मृताजातौ सुतौ वरम्।

यतस्तौ स्वल्पदुःखाय यावज्जीवं जडो दहेत्॥ (पं.त. 1-4)

किं तथा क्रियते धेन्वा या न सूते न दुग्धदा।

कोऽर्थः पुत्रेण जातेन यो न विद्वान् न भक्तिमान्॥ (पं.त. 1-6)

तदेतेषां यथा बुद्धिप्रकाशो भवति तथा कोऽप्युपायः अनुष्ठीयताम्” इति।

तदा सचिवाः बहुधा विचिन्त्य एकैकः एकैकं मार्गं सूचितवन्तः। किन्तु अन्तिमः सुमतिर्नामसचिवः उक्तवान् यत्-

“तदत्रास्ति विष्णुशर्मा नाम ब्राह्मणः सकलशास्त्रपराङ्गमः, छात्रसंसदि लब्धकीर्तिः। तस्मै समर्पयतु एतान्। स नूनमद्राग् प्रबुद्धान् करिष्यति।” इति।

तदाकर्ण्य राजा विष्णुशर्मानम् आहूय स्व पुत्रान् अर्थशास्त्रपारङ्गतान् कर्तुं तं प्रार्थितवान् सोऽपि-

“एतान् तव पुत्रान् मासषट्केन यदि नीतिशास्त्रज्ञानं न करोमि, ततः स्व नाम त्यागं करोमि। श्रूयतां ममैष सिंहनादः। त्वत्प्रार्थनासिद्ध्यर्थं सरस्वतीविनोदं करिष्यामि। तल्लिख्यतामद्यदिवसः। यद्यहं षण्मासाभ्यन्तरे तव पुत्रान् नयशास्त्रं प्रति अनन्यसदृशान् न करिष्यामि, ततो नार्हति देवो देवमानं संदर्शयितुम्।” इति शपथं कृत्वा राजः पुत्रानादाय तदर्थं मित्रभेद, मित्रप्राप्ति, काकोलूकीय, लब्धप्रणाश, अपरीक्षितकारकं चेति पञ्चतन्त्राणि विरच्य पाठिताः। तेऽपि षण्मासाभ्यन्तरे एव नयशास्त्रज्ञाः संवृत्ताः।

ततः प्रभृति पञ्चतन्त्रं नाम नीतिशास्त्रं बालावबोधनार्थं भूतले प्रवृत्तम्। एतत् सर्वं विष्णुशर्मणैव ग्रन्थारम्भे कथितम्।

अनेन ज्ञायते यत् राज्ञः त्रयः पुत्रान् संस्कर्तुम्, संस्करणाद्वक्पथे पञ्चतन्त्राणि विरच्य बोधितवान्। अर्थात् पञ्चतन्त्ररचनासन्दर्भः नयशास्त्रज्ञानरहितान् संस्कर्तुमेव इति स्पष्टं भवति।

सामाजिकसंस्करणम्।

न केवलं नीतिशास्त्रज्ञानरहितानां अमरशक्तेः त्रयः पुत्रानां संस्करणमेव अस्य ग्रन्थस्य प्रयोजनम्, किन्तु विश्वेस्मिन् सकलान् पाठकान् अपि संस्कृत्य नीतिशास्त्रपारङ्गतान् कर्तव्यमिति तस्य मतिः स्यात्। अतः सामाजिकसंस्करणमपि प्रयोजनं भवति। केवलं अमरशक्तेः त्रयः पुत्रानां कृते चेत् ग्रन्थस्य आवश्यकता नास्ति। अमरशक्तेः त्रयः पुत्रानां बोधनं व्याजेन सकललोकसंस्करणं भविष्यतीति विष्णुशर्मणः मतिः स्यात्। अनेन विष्णुशर्मणः संस्करणाद्वक्पथमपि अवगन्तुं शक्यते।

कथाकथनविषयकसंस्करणम्

सामान्यतः बालाः विद्याभ्यासे अनुरक्ताः न भवन्ति। यतो हि अभ्यासः, पठनम्, कण्ठस्थीकरणम्, लेखनम्, परीक्षा इत्यादिषु बालानाम् आसक्तिः न भवति। केचन बालाः आचार्यः दण्डयति इति हेतोः पठन्ति, अन्ये केचन बालाः यदि पठामः उन्नतस्थानं प्राप्स्यामः इति हेतोः पठन्ति, अपरे केचन अर्थिकस्थितिवृद्ध्यर्थं च पठितुमिच्छन्ति। किन्तु तत्र विषयस्योपरि आसक्तिः नास्ति। तत्र कारणं तु विषयस्य काठिण्यता, बोधनापद्धतिष्वपि काठिण्यता एव। अतः विष्णुशर्मा एतत् सर्वं मनसि निधाय पाठ्यक्रमनिर्माणे, इतिवृत्तस्वीकरणे, विषयबोधनापद्धतिष्वपि संस्करणानि कृतवान्। बालाः सामान्यतः पशु-पक्ष्यादिषु अभिमानिनः भवन्ति। अतः पशु-पक्ष्यादीन् स्वीकृत्य तेषां स्वभावं परिशील्य, मनवानां स्वभावं तेषु संयोज्य कथाः कथितवान्। अनेन छात्राः कथायाः उपरि आसक्तिं प्रदर्शयन्ति। कथामध्ये सन्दर्भं परिकल्प्य उपदेशात्मकानि श्लोकानि बोधितवान्। अतः अप्रयत्नेनैव समाजे कथं व्यवहर्तव्यमिति ज्ञानं सम्पादयन्त्येव। एवं विषयबोधने नूतनसंस्करणानि कृतवानित्यत्र नास्ति सन्देहः।

रचनाशैलीसंस्करणम्

एवमेव रचनाशैल्यामपि स्व वैशिष्ट्यं प्रदर्शितवान्। विष्णुशर्मणः प्राक् ये स्थिताः महाकवयः ते स्व पाण्डित्यं प्रदर्शयितुं वा अन्यद् वा भवतु, प्रौढशैलीमुपयुज्य काव्यनिर्माणं कृतवन्तः। न केवलं पद्यकाव्यपठने काठिण्यता, गद्यकाव्यनिर्माणेऽपि समासभूयिष्ठानि कठिनपदान्युपयुज्य काव्यनिर्माणं कृतवन्तः। अत एव “गद्यं कवीनां निकषं वदन्ति” इत्यपि कथयन्ति। अतः बालाः काव्यपठने आसक्तिं न प्रदर्शयन्ति। यतोऽहि पठनमात्रेण अर्थावगमो न भवति। यदि मुहुर्मुहुः सन्देहः आगच्छति चेत् पठने आसक्तिरपि सामान्यतः न भवति। आचार्याणां सहाय्यं विना स्वयं पठितुम्, अवगन्तुमपि न शक्नुवति।

- एतत् सर्वं मनसि निधाय विष्णुशर्मणा शैल्यामपि नूतनानि संस्करणानि कृतवान्। गद्यरचने, पद्यरचनेऽपि छात्रान् मनसि निधाय अत्यन्त सरलशैलीम् उपयुक्तवान्।

यथा- “अस्ति दाक्षिणात्ये जनपदे पाटलीपुत्रं नाम नगरम्। तत्र मणिभद्रो नाम श्रेष्ठी प्रतिवसति स्म। तस्य च धर्म-अर्थ-काम-मोक्ष कर्माणि कुर्वतः विधिवशात् धनक्षयः सञ्जातः। ततः धनक्षयात् अवमानपरम्परया परं विषादंगतः। अथ अन्यथा रात्रौ सुप्तः चिन्तितवान् - “अहो धिक् इयं दरिद्रता (पं.त. ५-१/२) इत्यदि रूपेण गद्यरचनाशैलीं सुलभतया अवगन्तुं समर्थाः भवन्ति।

“उपकारिषु यः साधुः साधुत्वे तस्य को गुणः।

अपकारिषु यः साधुः स साधुः सद्भिर्बुध्यते॥” (पं.त. ४-७७)

वरं बुद्धिर्न सा विद्या विद्यया बुद्धिरुत्तमा।

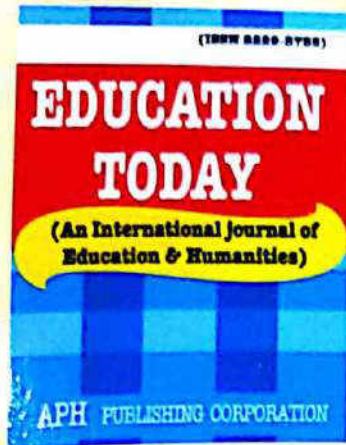
बुद्धिहीना विनश्यन्ति यथा ते सिंहकारकाः॥

एवं पद्यरचनायामपि सरलशैलीम् उपयुज्य छात्रानां कृते सुलभतया अवबोधाय शैल्यामपि संस्करणानि कृतवान्।

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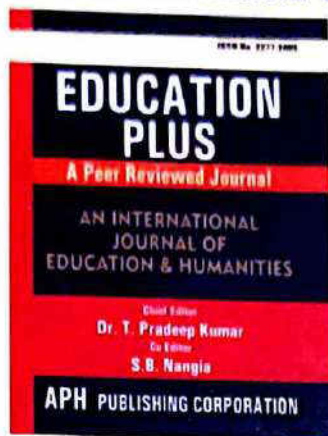
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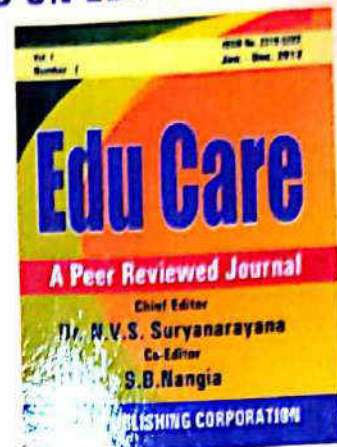
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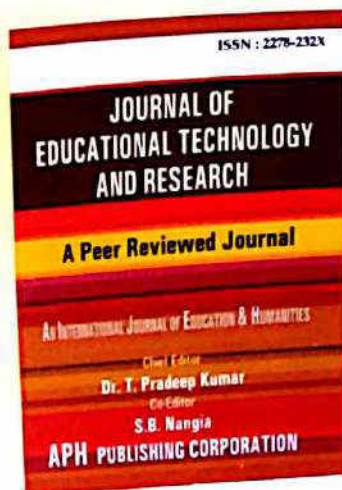
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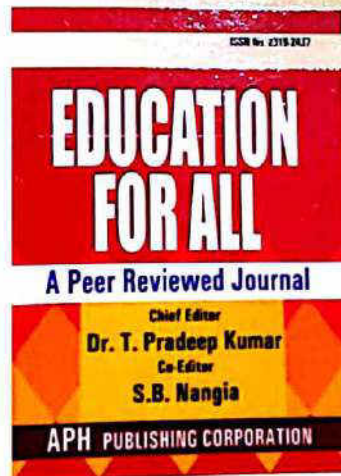
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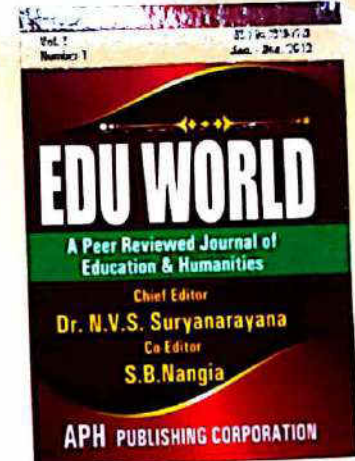
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The theory of big bang was put forward in the 1950's, and it is still the unchallenged scientific explanation of the origin of the universe. Galactic formation and evolution is now an active area of research in astrophysics that deals with cosmology as well as astronomy. Gravitational waves, black holes, neutron stars-pulsars, quasars and galactic nuclei, formation of galaxies, origin of cosmic rays and cosmic gamma and x-ray radiations and neutrino astronomy are the key areas in astrophysics that are not yet to be explored fully. In this article the authors present briefly some of the key problems in astrophysics with the modern advances in that area. So that it could kindle the interest of the readers and motivate them to go the original and additional sources to peruse the issues as research topics.

Key words: Cosmology, astronomy, gravitational waves, pulsars.

Introduction

Astrophysics is literally a branch of "Space Science" that deals with application of the laws of physics and Chemistry to understand the massive objects in the universe¹. Now it seems to be having two branches - Cosmology and

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Astronomy, Cosmology is the study of the cosmoses at large that is origin, evolution and eventual behaviour of the universe. Whereas, Astronomy is the study of individual objects or structures in the space. One of the pioneers of astrophysics – Stephen Hawking mentioned in his last BBC interview: "we are still rubbing our eyes or rather ears as we have just woken up to the sound of gravitational waves". From this it is evident that astrophysics is still in its infant stage and needs to be explored.

It is true to some degree of proximity, the universe can be treated as a physical system and it is homogeneous and isotropic-everything is same in all directions. The galaxies are the mass points in the universe containing billions of stars, planets, interstellar gas, stellar remnants, dust and dark matter². The medium between galaxies is a tenuous gas that has an average density about one atom per meter cube. And these galaxies are having black holes at their centres. our own galaxy, the Milky Way, is a gigantic disc-shaped galaxy with 30 kiloparsecs in diameter and a kiloparsec in thickness and has black hole known as Sagittarius-A3-4. Our solar system is a small part of the Milky Way galaxy. The earth is the only planet in our solar system that has life on it. We have not yet visited the other planets, but have sent remote controlled probes to explore them.

Some of the key areas in astrophysics and their modern advances.

Astronomy has always been linked to physics. Of course, the degree of intimacy varies with time. The development of classical mechanics, accomplished by Newton, drew

majorly on the astronomical results of Copernicus, Galileo, and Kepler. Even the telescope introduced by Galileo into astronomy, would have been impossible without the developments in optics. The detection of black holes is one of the most important and attracting problems. In 2015, black hole merger proved Vishveshwara's calculations of quasi-normal modes of black holes⁵. This indicates black hole's existence. This in turn tells the application of general theory of relativity that suggests a possibility of the existence of black holes. LIGO-a gravitational wave interferometer which is now in collaboration with the Virgo in Pisa (Italy), apart from the two at Hanford and Livingston (USA) announced two thrilling observations in the year 2017. The first observation was that of another black holes' merger and the second was the merger of two neutron stars. This confirms that gravitational waves are formed from the merger of neutron stars and now we have a new window to the universe to explain. A gravitational wave is a concept predicted by Einstein's general theory of relativity states that mass distorts space-time (fabric) just like a boat causes ripples in a pond. But they are extremely weak and the wave displacements are much smaller than the size of protons. The existence of supermassive black holes at the cores of galaxies was confirmed through X-ray astronomy⁶. Recently, in 2016, a team led by Christopher Conselice of the University of Nottingham discovered over 2 trillion galaxies in the observable universe using 3D modelling of images collected over 20 years by the Hubble Space Telescope⁷. With these we can say that the key areas of astrophysics are being explored. But needs to be explored up to the mark.

Conclusion

We have been dealing so far with more or less specific issues of astrophysics and their modern advances from the view point of their outlook for research up until the end of the year 2017. But there are problems of more general nature, which are concerned with the speed of development, forms, specific features and organization of research, and so forth. In India Inter University Centre for Astronomy and Astrophysics (IUCAA) in Pune and Raman Research Institute (RRI) are pursuing research work in the area of gravitational waves. In another few years India will also, hopefully, have its LIGO (INDIGO) and be part of that collaboration.

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Heat Transfer Analysis of MHD Marangoni Mixed Convection Flow of a Dust Particles Suspension

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Abstract: Heat transfer effects on hydromagnetic marangoni boundary layer flow of a dusty fluid filled with porous medium has been explored. Non-linear radiation, viscous dissipation, joule heating, heat source/sink. Effects are considered in energy and species equations. The mathematical problem is developed with the help of momentum, energy and species equations using the similarity transformations. The numerical results for the transformed highly nonlinear ordinary differential equations are presented. For numerical computations, bvp5c package is used. The roles of physical parameters are focused in momentum, heat and mass transport distributions. We examined the results under both linear and quadratic variation of the surface temperature. Numerical computations for the local Nusselt number are computed. It reveals that thermal boundary layers are enlarged and velocity boundary layers decrease for escalating values of ϕ . Impact of linear variation of surface temperature dominates nonlinear variation of surface temperature.

Keywords: Mixed convection, particles suspension, heat source/sink, porous medium

1. Introduction

The convection effected by the variations of the surface tension gradients is known as the Marangoni convection. It has important applications in the fields of aerospace, crystal growth, welding, material sciences, etc. Napolitano [1] was first introduced by boundary layer as the marangoni boundary layer. A steady two dimensional mixed convection marangoni boundary layer was investigated by Zhang et al. [2]. They are solving analytically by obtaining accurate results. Heat transfer effects on a steady marangoni boundary layer flow across a flat plate was analysed by Arifin et al [3]. Golia and Viviani [4] were explored by the non isobaric marangoni boundary layer. They are solving numerically by implementing quasi-linear technique.

dusty liquid flow can be visualized in various applications, nuclear reactor cooling, paint spray, rain erosion, powder technology, cement and steel production, dust collection, acoustics, performance of solid fuel rock nozzles, sedimentation and guided missiles. Saffman [5] has formulated the stability of the laminar flow of a dusty gas in which the dust particles are uniformly distributed. Chamka [6] has introduced the unsteady hydro magnetic heat transfer through a circular pipe of two phase flow. Gireesha et al. [7] investigated a two dimensional (2D) boundary layer Magneto hydrodynamic dusty fluid flow over a heat transfer of vertical stretching sheet through a porous medium. They are solving numerically by applying Runge-Kutta Fehlberg method. Mamata et al. [8] was scrutinized by study (2D) hydromagnetic flow of particle suspension in the presence of convective conditions. Heat and mass transfer effects on MHD flow across a stretching sheet was studied by Sreedevi et al [9]. In this paper they are presenting graphical representations for friction factor, Nusselt and Sherwood numbers. Unsteady two dimensional boundary layer flow of dusty fluid was studied by Nandkeolyar et al. [10] they are solving by applying Laplace transform technique. Cross diffusion effects on Boussinesq fluid across a vertical plate was deliberated by Makinde et al. [11]. Olanrewaju and Makinde [12] was studied by Soret and Dufour effects on MHD flow with heat and mass transfer over a vertical plate sheet in presence of chemical reaction.

The principal idea of this contribution is to addresses the prominent features of MHD two-phase flow of a Marangoni Mixed Convection over a stretching surface filled in the presence heat source/sink. The boundary layer governing differential equations are modelled and transformed to a system of nonlinear ODE'S with the aid of similarity transformations. The final controlled equations along boundary restrictions are resolved numerically by RKF method.

2. Model Problem

Consider a steady two dimensional magneto hydrodynamic flow of Dusty fluid over a rectangular sheet in the presence of heat source/sink. Magnetic field B_0 is invoked along the x-axis can be shown in Fig.1 The dust particles are compatible in size. The surface tension Γ is supposed to fluctuate with temperature in linear form. That is $\Gamma = \Gamma_0 [1 - \varsigma(t - t_0)]$

Here Γ_0 and t_0 are the surface tension and the temperature characteristics, and ς is the positive fluid property, we assume that $t_0 = t_\infty$. The basic two dimensional boundary layer equations of

continuity, momentum, heat transfer for both clean fluid and particle phase with usual notation can be written as

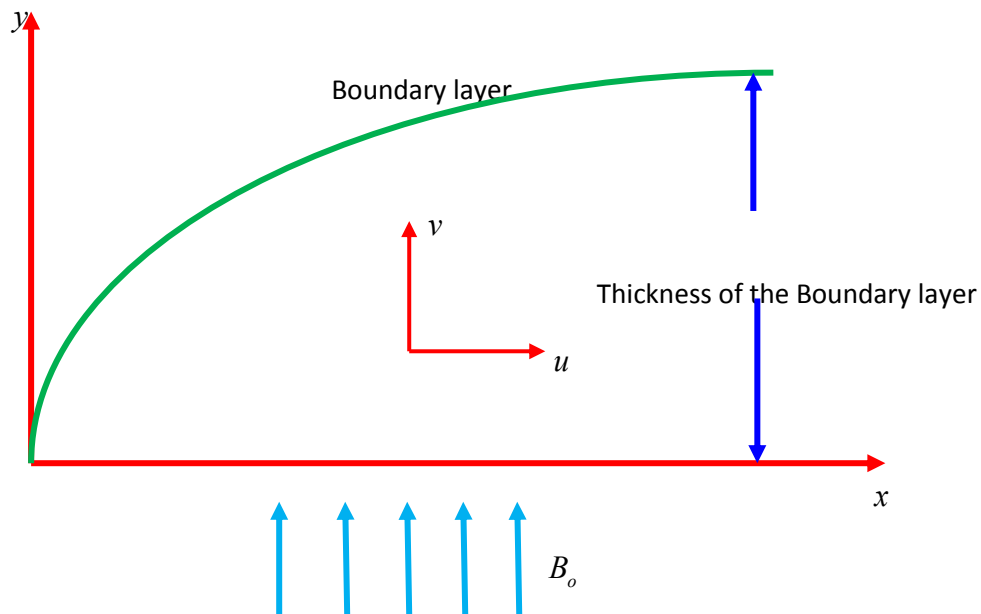


Fig. 1 Physical model

$$u_x + v_y = 0 \quad (1)$$

$$U_x + V_y = 0, \quad (2)$$

$$uu_x + vv_y = \frac{\mu_{nf}}{\rho_{nf}} u_{yy} + \frac{\rho_p}{\rho_{nf} \tau_m} (U - u) - \frac{\sigma_{nf} B_0^2}{\rho_{nf}} u - \frac{\nu}{k_f} u \quad (3)$$

$$UU_x + VV_y = -\frac{1}{\tau_m} (u - U), \quad (4)$$

$$(\rho c)_{nf} (ut_x + vt_y) = \left(k_{nf} + \frac{16\sigma^* t_\infty^3}{3k^*} \right) t_{yy} + \frac{\rho_p c_p}{\tau_t} (T - t) + q''' + \sigma_{nf} B_0^2 u^2 + \mu \left(\frac{\partial u}{\partial y} \right)^2 \quad (5)$$

$$UT_x + VT_y = -\frac{1}{\tau_t} (t - T) \quad (6)$$

The boundary conditions are

$$\mu_{nf} u_y = \frac{\partial \Gamma}{\partial t} \frac{\partial t}{\partial x}, v = 0, t = t_0 + Ax^{m+1} \text{ at } y = 0,$$

$$u \rightarrow 0, U \rightarrow 0, V \rightarrow \nu, t \rightarrow t_\infty, T \rightarrow t_\infty \text{ as } y \rightarrow \infty. \quad (7)$$

In which (u, v) and (U, V) denote the velocities of the nanofluid and the dust phases, m is the constant exponent of the temperature, ρ -density, ρ_p particle density, μ -dynamic viscosity, ν - kinematic viscosity, k -thermal conductivity, σ_{nf} nano fluid electrical conductivity, B_0

strength of magnetic field, $\tau_m = \tau_m^* x^{\frac{2(m-1)}{3}}$ -momentum relaxation time of dust particles $\tau_m^* = m_\rho / 6\pi\mu r_p$, $\tau_t = \tau_t^* x^{\frac{2(m-1)}{3}}$ - thermal relaxation time of dust particles $\tau_t^* = m_\rho c_\rho / 4\pi\mu r_p$, m_ρ and r_p are the mass and radius of the dust particles, c and c_ρ are the specific heat of the nanofluid and the dust particles, σ^* - Stefan-Boltzmann constant, k^* -mean absorption coefficient, m -exponential index, D_m mass diffusivity, K_T thermal diffusion ratio, T_m mean fluid temperature, c_s concentration susceptibility, k is the porous permeability parameter,. The subscripts (x, y) denote partial derivatives and (nf, f, s) symbolize the (nanofluid, base fluid, nano particles).

The effective properties of the nanofluid are:

$$\mu_{nf} / \mu_f = (1-\phi)^{-2.5}, \quad \rho_{nf} = (1-\phi)\rho_f + \phi\rho_s, \quad \frac{k_{nf}}{k_f} = \frac{(k_s + 2k_f) - 2\phi(k_f - k_s)}{(k_s + 2k_f) + \phi(k_f - k_s)},$$

$$\rho c_{nf} = (1-\phi)(\rho c_f) + \phi(\rho c_s).$$

Here ϕ volume fraction of nanoparticles. We introduce the following transformation;

$$\psi = C_1 x^{\left(\frac{m+2}{3}\right)} f(\zeta), \quad \Psi = C_1 x^{\left(\frac{m+2}{3}\right)} F(\zeta), \quad \theta = \frac{t - t_\infty}{Ax^{m+1}},$$

$$\theta_p = \frac{T - t_\infty}{Ax^{m+1}}, \quad \zeta = C_2 x^{\frac{m-1}{3}} y \quad (8)$$

where ψ and Ψ are the stream functions such that

$$u = \frac{\partial \psi}{\partial y}, \quad U = \frac{\partial \Psi}{\partial y}, \quad v = -\frac{\partial \psi}{\partial x}, \quad V = -\frac{\partial \Psi}{\partial x}.$$

Further, m, A, C_1, C_2 are constants with A, C_1 and C_2 given by

$$A = \frac{\Delta t}{L^{m+1}}, \quad C_1 = \sqrt[3]{\Gamma_0 \zeta A \rho_f / \mu_f^2}, \quad C_2 = \sqrt[3]{\rho_f^2 / \Gamma_0 \zeta A \mu_f}, \quad (9)$$

With L -surface length and Δt -constant characteristic temperature.

Substituting (10) into (2)-(9), we have

$$f''' + (1-\phi)^{2.5} \left(1 - \phi + \phi \frac{\rho_s}{\rho_f} \right) \left(\frac{m+2}{3} f'' + l\beta_v (F' - f') - \frac{2m+1}{3} f'^2 - Mf' \right) - kf' = 0 \quad (10)$$

$$\frac{m+2}{3} FF'' + l\beta_v (f' - F') - \frac{2m+1}{3} F'^2 = 0 \quad (11)$$

$$\left(\frac{1}{\text{Pr}} \left(\frac{k_{nf}}{k_f} + \frac{4Rk_{nf}}{3k_f} \right) \theta'' + \left[\frac{m+2}{3} \theta' f - (m+1) f' \theta \right] + \left[l\gamma\beta_t (\theta_p - \theta) + MEcf'^2 + Ecf''^2 \right] + Af' + B\theta \right) = 0 \quad (12)$$

$$\frac{m+2}{3} F\theta_p' - (m+1) F'\theta_p + \beta_t (\theta - \theta_p) = 0 \quad (13)$$

With boundary conditions

$$f''(0) = -2(1-\phi)^{2.5}, f(0) = 0, \theta(0) = 1$$

$$f'(\infty) = 0, F'(\infty) = 0, F(\infty) = f(\infty), \theta(\infty) = 0, \theta_p(\infty) = 0 \quad (14)$$

Where prime signifies the derivative with respect to ζ , l is the dust particle mass concentration parameter, β_v momentum dust particle, M magnetic parameter, k porous permeability parameter, Pr Prandtl number, β_t thermal dust particle, Df Dufour number, A, B Heat source /sink parameters, Sr Soret number, Sc Schmidt number, β_c solutal dust particle parameter.

Dimensionless Skin friction, Nusselt number is

$$Cf_x = \frac{f''(0)}{-2(1-\phi)^{2.5}}, Nu_x = -\frac{k_{nf}}{k_f} \left(1 + \frac{4}{3}R\right) C_2 x^{\frac{m+1}{3}} \theta'(0),$$

The average Nusselt number u_L , based on the average temperature surface and the ambient temperature is given by

$$Nu_L = -\frac{3m+6k_{nf}}{4m+5k_f} Ma_L^{\frac{1}{3}} \text{Pr}^{\frac{1}{3}} \theta'(0), \text{ Here } Ma = \zeta c_f AL^{2+m} / \nu_f k_f \text{ is the Marangoni number.}$$

3. Results and Discussion

The coupled ordinary differential equations (10) – (13) subject to the boundary conditions (14) are solved numerically using Runge-Kutta based shooting technique. The results obtained show the influences of the non-dimensional governing parameters. Table 1 presents the comparison of Prandtl number on $\theta'(0)$ with existing work. It is conclude that the present results are in good agreement with the previous studies. **Table 2 presents the**

comparision of Magnetic parameter on $f''(0)$ with existing work. It is conclude that the present results are in good agreement with previous results. Fig. 2 depicts the effects of Porous parameter on $f'(\zeta), F'(\zeta)$. It is noticed that increase in porous parameter velocity enhances. Fig. 3 and 4 shows the Influence of dust parameters for β_v and β_t on velocity profile $f'(\zeta), F'(\zeta)$ and temperature profile $\theta(\zeta), \theta_p(\zeta)$. When we enhancing the values of β_v and β_t declines $f'(\zeta)$ and $\theta(\zeta)$ magnifies the $F'(\zeta)$ and $\theta_p(\zeta)$. The variations of mass concentration of dust particles parameter l have been shown in Fig 5 the velocity for both the fluid and particle phase respectively.

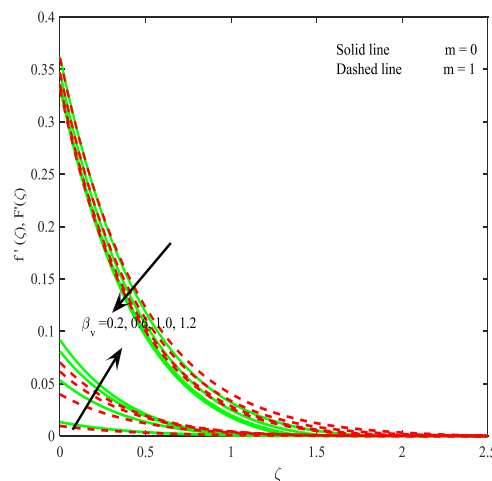
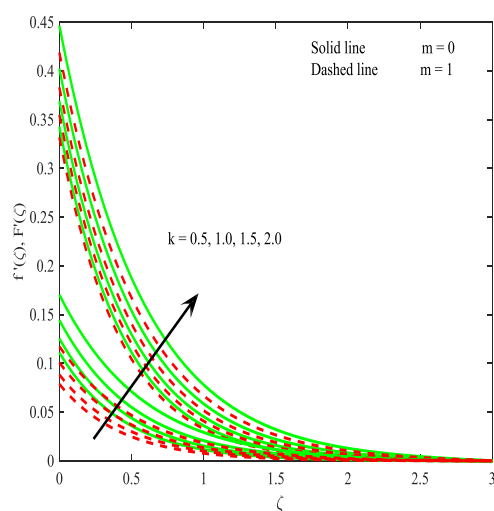


Fig.2. Influence of k on $f'(\zeta), F'(\zeta)$. **Fig.3.** Influence of β_v on $f'(\zeta), F'(\zeta)$

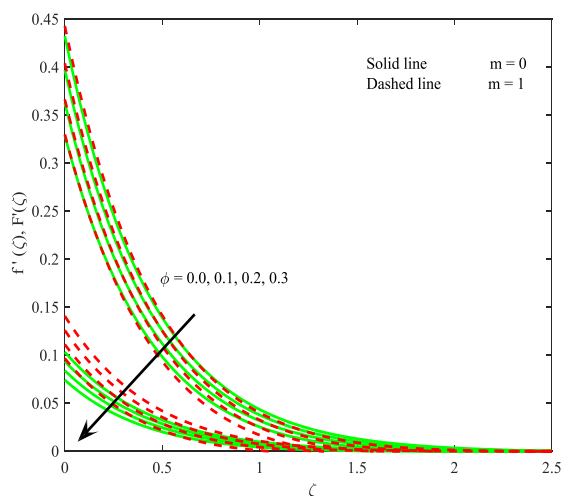
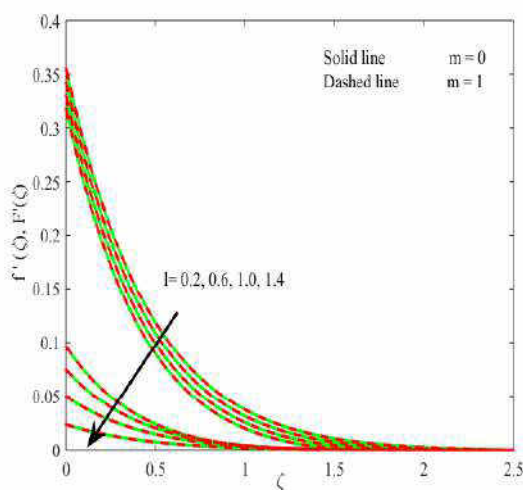


Fig.4. Influence of l on $f'(\zeta), F'(\zeta)$ **Fig.5.** Influence of ϕ on $f'(\zeta), F'(\zeta)$

The velocity distributions are found to be diminished in the boundary layer with an increase in l . Fig.6 exhibit the behaviour of angle π on velocity and temperature distributions for both the phases. It is found that the boost up values of angle π the velocity and boundary layer thickness increases and the opposite trend is seen in temperature profile. We can observe that linear variation of the surface temperature on velocities and temperatures dominates the quadratic variation of the surface temperature. Effect of magnetic parameter M on $f'(\zeta), F'(\zeta)$ is plotted in Fig.7. It is found that velocity profile decreases with escalating values of M . Due to the reason that the Lorentz force enhances for higher magnetic parameter. Such force acts as a resistive agent to fluid motion. Thus velocity and corresponding boundary layer are decreased. And the opposite behaviour is seen Fig.8 that is temperature profile.

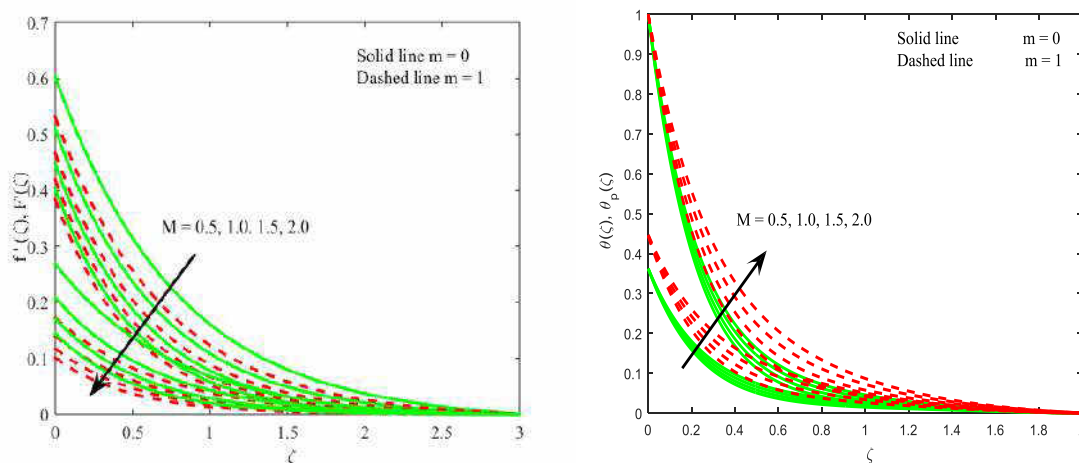


Fig.6. Influence of ϕ on $f'(\zeta), F'(\zeta)$. **Fig.7.** Influence of M on $\theta(\zeta), \theta_p(\zeta)$.

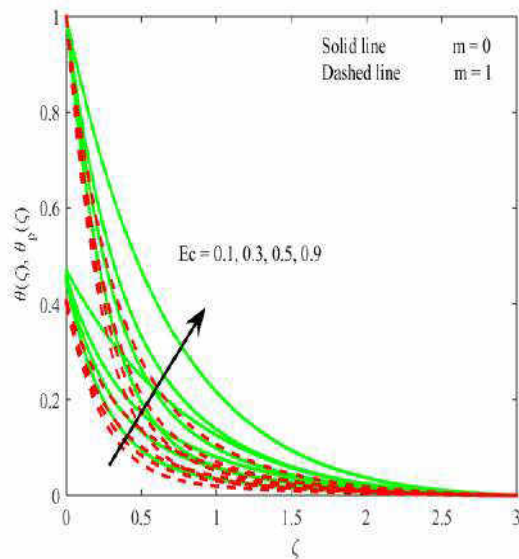


Fig.8. Influence of Ec on $\theta(\zeta), \theta_p(\zeta)$.

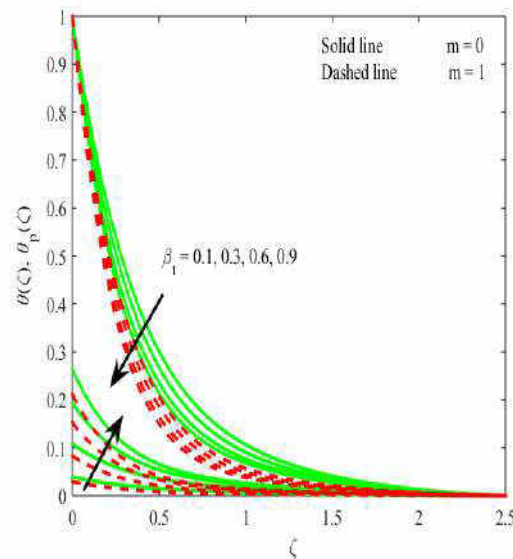


Fig.9. Influence of Ec on $\theta(\zeta), \theta_p(\zeta)$.

Fig 9 depicts the influence of Eckert number on temperature profile $\theta(\zeta), \theta_p(\zeta)$. temperature profile and its boundary layer thickness enhances for escalating values of Ec . it is observed that an increase in viscous dissipation of the fluid tends to increase in the temperature. Figs. 10 and 11 respectively depict the impact of space and temperature dependent heat source parameter (A and B) on the temperature distribution. It is conspicuous that temperature dependent heat source B affecting significantly by increasing the fluid temperature than space dependent heat source A . Scientifically, the energy boundary layer generates energy which produces the liquid temperature to enhance with larger values of $A > 0$. Due to this argument, a magnification in fluid temperature field is observed for escalating values of A .

Table 1 Comparison of values of Prandtl number on heat transfer coefficient

Pr	Grubka et al.[12]	Chen [13]	Mahanteesh et al. [14]	Present Results
0.72	1.0885	1.0885	1.0884	1.0885
1.0	1.3333	1.3333	1.3333	1.3333
3.0	2.5097	2.5097	2.5096	2.5095
10.0	4.7969	4.7968	4.7968	4.7969

Table:2 Comparison of values of Magnetic parameter on skin friction coefficient

M	Tufail et al. [16]	Mahanthesh And Gireesha[17]	Present results
0.0	1.00000	1.00000	1.00000
0.5	1.22475	1.22475	1.22475

1.0	1.41421	1.41421	1.41421
1.5	1.58114	1.58114	1.58114

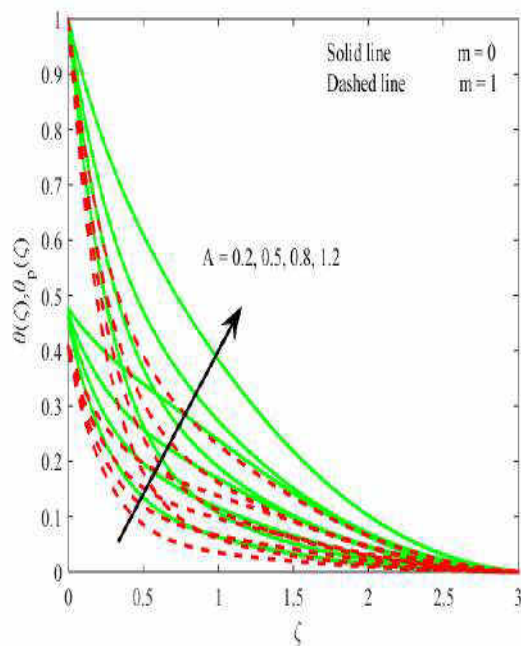


Fig.10. Influence of A on $\theta(\zeta), \theta_p(\zeta)$.

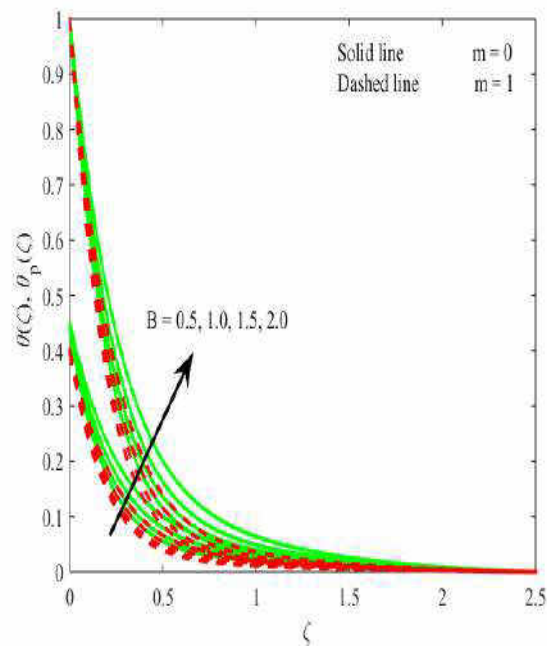


Fig.11. Influence of B on $\theta(\zeta), \theta_p(\zeta)$

Fig 9 depicts the influence of Eckert number on temperature profile $\theta(\zeta), \theta_p(\zeta)$. temperature profile and its boundary layer thickness enhances for escalating values of Ec . it is observed that an increase in viscous dissipation of the fluid tends to increase in the temperature. Figs. 10 and 11 respectively depict the impact of space and temperature dependent heat source parameter (A and B) on the temperature distribution. It is conspicuous that temperature dependent heat source B affecting significantly by increasing the fluid temperature than space dependent heat source A . Scientifically, the energy boundary layer generates energy which produces the liquid temperature to enhance with larger values of $A > 0$. Due to this argument, a magnification in fluid temperature field is observed for escalating values of A .

4. Conclusions

In this study, we presented the numerical results for analyzing the momentum, heat and mass transfer characteristics of MHD flow of a marangoni dusty fluid over a rectangular surface. The effects of non dimensional governing parameters on velocity, temperature and concentration profiles for both fluid and dust phases are discussed and presented through graphs.

1. Velocity profile decreases with escalating values of M .

2. Enhancing the values of β_v and β_t declines $f'(\zeta)$ and $\theta(\zeta)$.
3. Impact of linear variation of surface temperature dominates nonlinear variation of surface temperature.
4. Thermal boundary layers are enlarged and velocity boundary layers decrease for escalating values of ϕ .

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PLASTIC POISON AND DRINKING WATER

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ABSTRACT

Water is the source of all life on earth. Water is so important that all ancient civilizations flourished in the river valleys – Indus, Ganges, Nile, Euphrates and Tigris (Mesopotamia) and Yang Tse Kiangs (China). Unfortunately this vital source of life is contaminated in several ways causing health hazards. This paper while mentioning the sources of water, describes the various ways of its contamination. It specially focuses its attention on the contamination of drinking water by plastic venom. The paper suggests certain important measures of eradicating or at least mitigating the evils of contamination. It warns that unless we take emergency measures in this regard, the whole living beings will be threatened with extinction.

Key words

Drinking water; Plastic containers; Water Contamination; Sources of Water

Introduction

Water is the source of all life on earth. Life includes not only human beings, but also trees, animals, birds and insects. All these living beings secure this water from different sources like rain, wells, tanks, rivers, seas (through saltish), underground and ice-caps of snowy mountains. But unfortunately, all the sources of water on the earth are getting contaminated in recent times, specially after the Industrial Revolution. To this is added the greediness and consumerism of modern man and the consequent depletion of natural resources. Unless we take immediate corrective measures, the whole life on earth will be threatened with extinction. We should all become aware of the value of water and keep in mind that even our migration to other planets like Mars depends on the existence of water.

Water and its Uses

It is already observed that water is the source of life. As far as human beings are concerned, the uses of water are several. It is needful for industry, irrigation, generation of electricity, hospitals, picnic spots and water fountains. Most importantly, it is vital to different house-hold purposes like drinking, cooking, bathing, cloth-washing and dish-washing.

Water Contamination

Unfortunately water, specially drinking water, is contaminated day by day in more proportions. According to a report of the W.H.O. water is contaminated with infectious agents, toxic chemicals and radiological hazards. Water is contaminated in several ways with several evil-effects specially on drinking water. Tanks are contaminated by human beings as well as animals. There are natural hazards in the underground water like fluoride. Excessive

fertilisers and pesticides in the field of agriculture are poisoning the underground water. Industrial effluents contaminate water to a serious degree.

It is estimated that 25% of the world population depend upon underground water. American researchers have shown that at certain places the underground water contain micro plastics @ 15.2 per litre. Even sea water is contaminated by not only industrial effluents but also by other factors like oil spills, atomic tests and plastic accumulation. Almost all rivers are contaminated and holy rivers like the Ganges are further contaminated by human corpses, Pushkara worships and eco-enemical offerings.

Water contamination is responsible for several diseases. The diseases from which we suffer by drinking contaminated water need not be explained. We suffer from several water-borne diseases like cholera, dysentery, yellow fever, skin diseases and amebiasis. It is no exaggeration to say that we suffer from 80% of our diseases due to water contamination. The British people were mostly worried about specially water - its availability as well as contamination - when they decided to settle in India as representatives of an imperial power.

Drinking Water and Plastic Poison

It is observed that water in general is contaminated by several agencies and that such contamination is more from plastic particles. In fact, we are suffering from more number of diseases than our ancestors because of plastic usage. Poison migrates from plastic material (containers) to our food items silently and gradually. This process of plastic poison entering our bodies is known as 'leaching'.

The leaching process is brisk when the food material stored in plastic boxes is hot or when it contains more quantities of fats and salts. It is also very active when food items like sambar have more acidity in the form of tamarind.

Our forefathers used to preserve their drinking water in earthen pots, metal vessels, wooden containers, leather bags, glass or ceramic ware or even in dried pot-gourds. But with the advent of plastic and its increased use, we have begun to store our drinking water in plastic containers - big or small. Scientists have given 1 to 7 numbers depending upon the types of plastic and ill-effects they produce.

Different types of plastics inject different types of poison into our bodies with different kinds of diseases. A few examples may be given.

Polyethylene Tere phthalate in pet bottles of soft drinks and juices causes breathing trouble, skin irritation, abortion and mental disorders.

Polyethylene of high density in bottles of milk and edible oils has hazardous effect on our lives, kidneys, spleen and bones.

Biophenol in water and lunch boxes harms our hormone system, reproduction system and diabetic condition.

Phthalates in cool-drink bottles endanger our sex hormones and cause asthma, allergy and such other diseases.

Nitrate in drinking water can cause Cyanosis which reduces the oxygen carrying capacity of blood. This is particularly dangerous to infants under 6 months of age.

Lead can enter through copper pipelines. If plastic micro particles join the process, it poisonous the human system specially in small children.

Remedies and Suggestions

Christiana Z Peppard has listed out 7 reasons for not drinking bottled water.

6. Plastic bottles are not biodegradable. What we drink in a few minutes can stick around for a thousand years.
7. Big companies may boast that they secure water from mountain streams, but it does not mean that the water inside is pure and pristine.
8. Bottled waters contain toxins that can seep out when exposed to heat or sit around for a long time.

9. Even advanced cities are reducing or avoiding bottled water.
10. Local food cooked with local water is more safe than water that is brought from elsewhere.
11. Durable and re-usable water bottles are found more safe.
12. When we avoid bottled water, we save money and live healthier. If we have a mind to change, the change is simple, easy and most useful.

Drinking Water – Remedies and Suggestions

Drinking water contamination has assumed dangerous proportions. Plastic pollution is caused mainly by micro plastics which are produced intentionally for the use in other consume products. They are also created when large plastic desis is broken down by erosion or sunlight effect.

Recent researches have shown that tap water contains 83% of micro plastics. Samples of 11 top bottled water brands have revealed 93% of micro plastics. According to a study by the UNO, water contamination is more in countries like India where the populations are high. According to a report of the WHO, two-thirds of diseases are due to water contamination. In view of such ill-omens, we should undertake certain measures immediately not only to reduce drinking water contamination but also to stave off the impending diseases. Since it is impossible to avoid plastics, we should look for plastics that are safer. Prevention is better than cure.

9. Strong water treatment systems should be founded to reduce micro plastics.
10. Plastic products should not be thrown near water ways, beaches, ponds, streams and rivers. Plastic trash should be immediately removed from such places.
11. Participation of clean up activities should be encouraged.
12. Purchase of items made of nature fibres should be purchsed.
13. Bottled water should be avoided, specially water in PET Bottles (Poly Ethylene Tera phthalate).
14. filters should be used even at households to eliminate all micro plastics from drinking water.
15. Water bottles and empty containers should be purchased only when they bear the tag-line 'safe'.
16. Heating water in plastic containers or storing hot water in them should be avoided.
17. Use of glass ware for keeping drinking water or children's milk should be encouraged. 'Glass in the boss in the bottle category'.
18. Awareness campaigns may be promoted about the plastic hazards vs drinking water.
19. If bottles are refrigerated and stored, the harm in almost nil.
20. Governments have to ban harmful plastic materials, specially with respect to drinking water.
21. B.I.S. rules should be implemented strictly awarding due punishments to those who violate.

People buy bottled water for a variety of reasons such as convenience, fashion, taste or for other such purposes. In this regard, we have to focus our attention on 4 important items with respect to the improvement of the quality and safety of drinking water (David and Valeria).

- A. Prevention of plastic poison entering into our bodies.
- B. Innovation of new methods of removing plastic particles from drinking water and food items.
- C. Activism on the fact of the citizens to build a culture which reduces plastic consumption as well as contamination.

- D. Activism on the part of the governments in organizing awareness camps and adopting a policy of kicks (punishing the violators) and kisses (rewarding those who follow the rules in this regard).

Conclusion

Water is more valuable than diamonds or gold. If the Third World War breaks out, it will be on the issue of water among nations. We know the real value of water only after the last drop of water dries out and after the extinction of all life on earth for want of water.

The famous proverb that man is the creator of his own destiny is more true in the case of water. If water disappears or if contaminated water kills all of us making the entire globe barren acid land, there is no modern Bhagiratha to bring celestial water to terrestrial uses. Unless we take measures on war-footing to conserve water and reduce its contamination, what Hamlet (Shakespeare) has said becomes true – *'The Rest is Silence'*.

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PLASTICS AND THEIR EFFECT ON ENVIRONMENT

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ABSTRACT

Plastic pollution, accumulation in the environment of man-made plastic products to the point where they create problems for wildlife and their habitats as well as for human populations. Early and current levels of plastics usage and disposal at each decade from 1950-2018. The single-use plastic products are everywhere. Types, collecting and recycling plastic is one of the most important actions currently used to meet this challenge. But it represents one of the most demanding areas in the plastic industry today. Various single-use and multi-use plastics and significance. The project has both economic and social value. On the economical side, this will save money by minimizing all expenditure for waste processing related to destroying the plastic waste. The second important contribution of the project is the significant impact on employment creation especially in rural areas. Lastly the recycled plastic is used to make new plastic products with reasonable price for low income families. On the social side this will improve environmental conditions for life reduce landfill waste,

“BEST PRACTICES IN TECHNOLOGY ENHANCEMENT LEARNING PROGRAMME ON MOOCS AND SWAYAMPRAKHA”

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ABSTRACT:

The present age is accompanied by blended learning due to globalization. It demands the crating of a higher number of heterogeneous groups, resulting in cultural exchange. The world is globalized and result oriented communities that are more heterogeneous and fostered inter-cultural dialogue. The MOOCs (Massive Online Open Course) Open Courseware (OCW), Open Educational Practices (OEP) and Study Webs of Active –Learning for Young Aspiring Minds (SWAYAM) as a new one of these learning modes has emerged as a new revolution with abundant opportunities, especially in the higher education.

Keywords: MOOCs (Massive Online Open Course), OERs (Open Educational Resources), ICT (Information and communication technology), Open Courseware (OCW), Open Educational Practices (OEP), Study Webs of Active –Learning for Young Aspiring Minds (SWAYAM).

INTRODUCTION:

Learning cannot be imagined without Information and Communication. Technology and its intervention in the form of e-learning applications because in open education, individuals are taken responsibility for what they learn and how to

learning and where they can learn, how to quickly learn, who helps them, and when they have their learning assessed. The wide range of open approaches and movements to open up the education so that higher quality education could be made accessible to all. Open Education Resources (OER), Open Educational Practices (OEP), and Massive Open Online Courses (MOOCs) and this kind of information approaches are changing the higher education system in India.

On-Line Learning in Transition: Understanding online learning is achieved using a combination of traditional knowledge and teaching model. A model of teaching is based on a formal curriculum is using electronic books (e-Books) and other online e-resources. The informal communication contact model was to get together and sharing the ideas and social activities traditional cultural exchanges from the students.

On-Line Learning Activities: he learning process is carried out through the following activities in three procedures:

1. Planning the activities
2. Executing instruction
3. Evaluating activities

Line Learning Community(OLC): The On-Leaning system is facing the challenges in the technology up-gradation to the teaching communities day to day Information. By accessing the virtual communities of students can acquire a

more updated source of data information through adaptive methods using web-based tutorials and assessments from the virtual sources. The new technology will influence society and upgraded the knowledge skills are expected to develop in teaching and learning. We have thought about the virtual learning system to process and take the place of intersection of a science and technology system. The framework of On-Line Learning Community (OLC):

Online Teaching: The Interaction occurs between teachers and students in the forms are through online content delivery and online workshops, online assignment corrections or web conferences, Video conferences, delivering the lectures through video conferences in national and international.

On-Line Learning: tutorials are held to give feedback by the interactive system. Guided tutorials, online practices are done by teaching communities with the standard process.

Online Assignments Assignments work will be done through an online-based system through online access authority tools; tutors develop assignments, web quests, or assessments very quickly and comfortably.

Online Discussions: The learning method facilitates group learning and interaction. Work in a group leads to the learners becoming critical reflectors.

Online Collaborative Learning: Learner's motivation towards participation in the process of learning, the effectiveness of learning activity, and the extent of collaboration in promoting perceived as well as cognitive learning is supporting through online collaborative learning.

Perspectives of On-Line Learning Community: The concept of community will be helping in the used concerning the characteristics of education and learning located on the internet.

An online learning community was specialized into three types:

- Professional OLC
- Educational OLC
- Internet OLC.

Digital Initiatives Knowledge-Based Society: The Education is recognized significant to drive for the economic environment is increasingly knowledge-driven by the global economy. The importance of worldwide countries to improve the excellent opportunity skills to getting an international standard competitive spirit to acquire the communication knowledge to the benefit of the globalization civilization. The existing knowledge-based society with knowledge economy is a powerful driver for change in the perspective and functioning of the education system.

National Knowledge Commission (NKC) clarified to all states in India "there is a clear, almost unanimous view that higher education needs a systematic. So that India can educate much larger number without diluting academic standards, indeed this is essential because the transformation of economy and society in the 21st Century would depend, in significant part on the spread and the quality of education among to our people, particularly in the sphere of higher education in India. It is only an inclusive society that can provide the foundations for a knowledge society.

Introduction to MOOCs:

The development of the global economy based on most of them getting the sign of knowledge. Comparatively, the benefit of improving determined by the complete use of expertise and technology innovation. The mass wave of opportunity will knock on the door of developmental education form the MOOCs, which is stands for Massive Open Online Courses. The significant revolutionary steps towards providing gifted education have yielded some impressive results. The term of MOOCs was derived from the year of 2008 by the Dave Cornier of the University of Prince Edward, Island, and

different models to extend their institution curriculum and offered new opportunities for the learners of students. Most priority studies have to analyze and using MOOCs to supporting the flipped learning classroom models. The MOOCs were used at virtual classroom experiences. For example, some of the publications by Eric Mazur, one of the primary references in this strategy worldwide to suggest that the flipped learning class results in critical learning gains compared with traditional educational institutions.

Role of Massive Open Online Courses (MOOCs) Platform:

The development of MOOCs as digitization transforms the knowledge to produce and consumed and how learning takes place in higher education institutions to explore the innovative approaches to the design and development of learning and learning environments. As a creative thought and mindset approach in the educational changes are coming on MOOCs. The MOOC's innovation new technology is reshaping of modern education system policy thoughts and ideas in the higher education system to supporting of enhancement of online learning education system for teaching and learning environment in different types of approaches to extremes some extent on the affordances of digitization in the knowledge. The emergence of MOOCs is implemented in the USA the Stanford, Harvard, and MIT; The top Institutions have spread the information throughout the global environment.

The topmost universities have started to offer some of the online MOOCs(massive open online courses). Now, in the beginning, stage the MOOCs product is moved into corporate and the private realm. Companies are likely Google and Tenaris were using the MOOCs for training programming to their employees. Mongo DB is educating developers through the MOOC medium, and thousands of private instructors are teaching classes. The following is an assessment of five accessible free MOOC platforms..

	Max. Class Size	Bindable	Custom Analytics	Monetization	Mobile	Hosting
edX	300,000	✓	✓	✓	✓	Self-hosted
moodle	10,000	✓	✓	✓	✓	Self-hosted or 3rd party
COURSE sites	Unlimited	✗	✓	✗	✓	Hosted
Udemy	Unlimited	✗	✗	✓	✓	Hosted
versal	Unlimited	✗	✗	✗	✓	Hosted

Edx:

EdX is an open source platform is offered by edX.org. It is one of the platform of universities such as Harvard and MITs are using and providing the courses of 100,000 above students. It was released an open source and the goal was to act as the Word Press for MOOC platforms. To accepting all users to use of plugging to expand the core functionality. EdX has a fast and modern to ability to accommodate large enrollments.

Edx is The organizations are want to modern, flexible, robust course-management platform. The open source investment is need to make in both installation and maintenance. But the return to the platform that can provide best in the class teaching of e-learning of thousands of students.

MOODLE: Moodle is an open source is LMS-learning management system is allows the users to build and offer online learning courses. It's built for traditional online classrooms rather than MOOCs. It tends to be easier to install than edX, and there are hosting or one-click install options available.

Moodle is suited for the institutons that want a full-featured, customizable Learning Management System (LMS). The platform offers more than EdX in terms of educational tools, analytics, and SCORM compliance. The trade-off is that the platform is over ten years old. The number of configuration options can be daunting, and system performance suffers from more significant numbers of students.

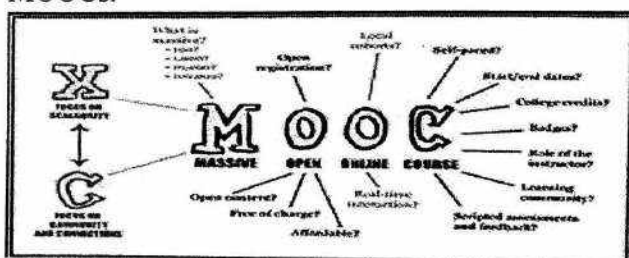
COURSE SITES OF BLACK BOARD

Course Sites by Blackboards are exceptionally robust platform. Majority of the features that

Bryan Alexander of the National Institute for Technology in Liberal Education. MOOCs are a very recent origin in the self-motivated distance education in education to start somewhere around mid of 2011. They can be called 'massive' because they are available for the masses. These courses can be fully taken online aimed at unlimited participation and open access via the web.

Today in the global education system, Massive Open Online Courses are playing the vital role of new opportunities for teaching and learning. To making the most of the technical education institutions are exploring and experimenting with blended teaching methodologies through MOOCs as a complement in the formal curriculum. Although one of the most common strategies of this complimentary use of MOOCs is the "flipped classroom. The literature also reports other ways of reusing and integrating MOOCs into formal education. One of these MOOC-based education models is to use MOOCs as a complementary resource for remedial courses. Therefore this model suggests using MOOCs to helping the students acquire and review the knowledge needed for getting and continue their technical education system at the university levels.

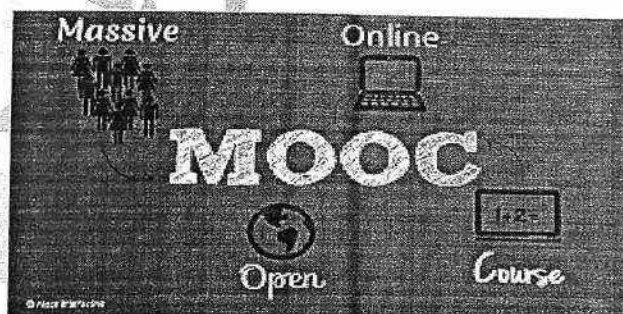
The colleges and universities were rapidly experimenting with the online learning system, but the question is where they are using a coherent strategy for the same or running downside risks. There is a significant possibility that MOOCs can improve the quality of pedagogy the MOOCs allow the learning industry to unbundle courses to be re-bundled again and taught as internal programs. The following figure is showing the real-time importance of MOOCs.



1. MOOCs- Massive Open Online Courses

Different type of MOOCs: The MOOCs are broadly classified into two kinds C MOOCs and X MOOCs.

- C MOOCs:** It has based on connections. They can creation for emphasizing connecting learners are called to connect of MOOCs and build upon the idea and platform originally visualized by George Siemens.
- X-MOOCs:** IT has background in the evolution of open courseware and open educational resources.
- X-MOOCs** is offered in generally offered by universities with collaboration of commercial institutions aim of gaining profits. X-MOOCs are virtual versions of traditional learning formats, i.e., lecture series, instruction manuals, discussion forums, etc.



2. MOOCs Open Course

MOOCs is complement of on-campus live courses there is consensus online literature and new idea technology up grading and enhancement of teaching learning process of the mathematics and Computer Operating Systems to learn the new knowledge developments. There are so many challenges are involved to balancing the use of mental, paper and-pencil. The digital tools are assessment and teaching activities, of MOOCs could be a powerful resource for this purpose.

The C-MOOCs to the X-MOOCs are including the H-MOOCs; the flipped learning classroom pedagogy model is used in MOOCs, and the remedial pedagogy with MOOCs. In higher education institutions were working and studying in

creation. They can also serve applied purposes: supporting students, teachers, educational institutions, and systems administrators. In light of the mentioned attrition rate, computer scientists can use another rather obvious applied challenge—automatically identifying students at risk of failing.

MOOCs to part of Hybrid Model. Many development countries have a significant unmet need for skilled IT professionals, where the learning need involves well-defined technical skills. The most recent MOOCs already offers several attractive options for this situation.

Features of MOOCs in Education: The MOOCs have shows in the scale of hugely positive outcomes, which needs to be thoroughly evaluated and regarded and considered by faculties, administrators, and policymakers.

Open Educational Resources: The comparative advantage of increasingly determined by the competitive use of expertise and technological innovation. Education will be recognized as a significant driver for economic competitiveness in an increasingly knowledge-driven global economy. The development of MOOCs supports not only staff skills development but also stimulate capacity building. There is an essential advantage in Open Educational Resources (OER) and MOOCs development.

OER Tools Developed in India are National Programme on Technology Enhanced Learning (NPTEL), Ekalavya, Amrita Interactive e-learning (A-View), and E-Grid and National Repository for Open Educational Resources (NROER). MOOCs are going to be revaluation in the field of education. An India specific MOOCs platform "SWAYAM" (Study Webs of Active Learning for Young Aspiring Minds) indicating self-learning shall be launched for entirely free of cost.

Credit Certification and Awards:

The Massive Open Online Courses (MOOCs) certification and examination will play an essential role in motivating learners to complete the course,

and certification strategies should have planned wisely. The offering final certificate will also be provided to issue the partial certificate based on the completion of specified modules in his course required to achieve individual learning slabs in the higher education system. The Consortium for Educational Communications (CEC) and National Coordinator for Development of MOOCs for undergraduate level University Grants Commission recognized approved courses to cater CBCS System having a considerable knowledge repository of higher educational video modules for broadcasting 32 DTH SWAYAMPRAKHA Channels telecasted e-content courses information in the higher education of in Educational Multimedia Research Centres (EMRCs) located in different places in the university/Institutions in India.

Scope and Limitations of MOOCs: The MOOCs courses are work well in flipped learning mode and newly emerging form of blended learning in higher education. The flipped approach offloads passive lecture content to homework, outside the classroom, and outside the teaching classroom at the college or university level. The college professor is unable to offer a MOOC course as CC or subject Matter expert even then the course as part of their regular classroom teaching. The professor needs to align the MOOCs with the semester curriculum and then make the students watch the lecture in the classroom with classroom projectors. The student's discussions are going on the learn the topic in blended learning methods according to the facilitator to guide the entire learning process online learning centers only.

Conclusion: The MOOCs have emerged out of learning analytics and learning objectives, learning process design, and development along with the emerging motivational strategies for evaluation and certification. They have made education easily accessible to anyone anywhere anytime around the globe and made people's life more improved by providing flexible and quality learning as it was earlier. The education system managed through advanced technologies and online studies will help India to nurture its growth 35 MOOCs is invasively burgeoning among Indians classrooms a reality. For

Moodle has, including great teaching tools, reporting features, and SCORM compliance. It is working with cloud based. You can set up a course in minutes and never have to worry about maintenance.

UDEMY (FREE VERSION):

From the beginning, Udemy has specialized in private MOOC. Think of it as the YouTube of MOOCs. Instructors can build and host their courses on the platform and then offer them to users for free or for a fee.

Udemy is for individuals who want to build basic courses and monetize them easily. The platform is full of coders, photographers, designers, and other specialists who offer their knowledge in the form of an online course. Udemy's most distinct strength is its base of 2,000,000 registered students. When you build a course on Udemy, you can reach this pool of potential students.

VERSAL (FREE VERSION)

Versal is an intriguing new platform. A user can sign up for free and then build a course that includes mathematical expressions, image drill downs, and many more widgets without any coding knowledge. Users can also embed their published courses on other websites, such as personal blogs.

Canvas:

Contrary to other solutions like EdX and Coursera, Canvas isn't limited to prestigious universities. It contains courses from a much more comprehensive selection of less renowned universities. It makes the classes somewhat more accessible and less intimidating if you want to jump the field you don't know anything.

ALISON: ALISON is considered to be the first MOOC. It is a non-profit world's leading provider of free online courses with certificates providing 600 courses to 4 million online learners registered worldwide. A mission of ALISON is to enable

people anywhere in the global to learn and get certified new skills among hundreds of free courses.

Franco Yainpez has identified three major barriers to access MOOCs.

- a) **Technological barrier:** MOOCs are designed to work on a computer with broadband internet access that may be a barrier in many developing countries.
- b) **Linguistic barrier:** Most MOOCs are provided by English, which everybody in developing nations may not read and or speak, and it limits the access for people who are not competent in English to take an online course.
- c) **Prior knowledge:** Some MOOCs expect the students to possess prior knowledge to grasp advanced concepts.

SWAYAM, MOOCs & CBCS Online Education System: In the modern higher education in India can follow the Choice Based Credit System (CBCS). The choice-based credit system is beneficial for new higher education system in reforming new curriculum which provides a 'cafeteria' type approaches to the engaging the students and also taken new courses wise electives or core sector of minor or significant elective subject and skill development courses learning and practical understanding of interdisciplinary subjects of environmental sciences and different type of approaching of learning in higher education respective field of specializations in higher education MOOCs on Higher Education:

MOOCs' engineers can exploit different results and techniques from AIED to improve MOOC platforms and create new opportunities for AIED research. Computer scientists are working in fields of educational data mining and learning analytics to find the MOOCs particularly interesting. Not only can they create genuinely "big" learning-related data from MOOC courses.

Methods of educational data mining and learning analytics can, in general, to apply for knowledge

Indians who have a thirst for quality based western education, MOOCs are proved exemplary in this direction. Professional development is possible through a learning community. Teachers work collaboratively within a framework to support each other through shared planning and curriculum development, accessing resources, and provide feedback for a teacher in a professional learning community. The digital content will help online learners teaching should find a suitable pedagogy that will be reflective and accountable in this content.

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Competency Building in Academic Business School Libraries through Information and Communication Technology: A User Study

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Abstract

Increased enrolments in business schools were reflective of business trends in India in 1991 when major economic reforms are unleashed. Structural changes in India's economy will be marked by a greater contribution of the services sector to GDP has expanded the job market in India, leading to massive employment opportunities in the services sector. The PGDM Post Graduation course offers students wider exposure to business functions like Marketing, Finance, Human Resources, Information Technology, Operations Management, etc. However, the quality of talent emerging from most second-tier business schools is sub-optimal. Media reports indicate that industry is often unhappy with the kind of students whom they have to place – considering their skill sets. Thus, the statement of the problem is – how to business schools produce an output with the required skill sets that the B-School libraries demands? This is a problem that needs a strategic approach for a successful resolution. Business schools are faced with a Hobson's choice of having to fill up their seats and ensure 100% placements so that they achieve operational efficiency.

Introduction

In the last few years, the PGDM program has become a popular post graduate program among students, especially in metro cities like Hyderabad, Mumbai, Bangalore, Chennai, Kolkatta, New Delhi, etc. Students from other parts of India flock to cities like Hyderabad, Mumbai, Bangalore and Chennai, New Delhi, for pursuing their post-graduate education in management. As a consequence of India's liberalization policy, the post reforms period in India since 1991 has been characterized by structural changes in the economy. Growth in services and foreign direct investments has led to a multitude of employment opportunities in India. Growth of IT and IT-enabled services, technology portals, and entrepreneurial opportunities in India have led to the demand for skilled and competent professionals. This has sparked great interest among graduates to acquire a post-graduate qualification in management. A management program enables acquiring of soft skills by students along with functional expertise.

However, reports suggest that many of the post graduates in management are not employable. This gap has been attributed to the lack of adequate interface between industry and academia. Often it is perceived that academia alone benefits from collaboration with industry. But nothing can be farther from the truth. The industry can benefit too by having access to quality research and a greater appreciation of the conceptual models that can help business decision

making. The industry also benefits by having access to a talent pool that can be easily molded to fit both strategic and operational roles in the industry.

Due to the rapid evolution of the B-School environment and the vast transformations throughout the academic realm, collaboration between industry and academia has assumed increased significance. Companies can offer business insights, and students contribute by way of proven methodology and expertise. Companies can have access to the latest research efforts. The collaboration between universities and industry is becoming more relevant. Companies benefit from hiring highly qualified graduates with the latest knowledge and core management skills. Business research and education should have relevance and positive impact on practice, policy, economy, and society. Collaboration between industry and academia has now become a fundamental necessity. Industry experts have opined that business schools are structured to serve academic disciplines rather than thinking about satisfying the needs of the business. This is an unacceptable logic by all counts. If we look back at history, we will realize that academic research has made an important contribution to industry across the globe. Many businesses have adopted C K Prahalad's bottom-of-the-pyramid model across the world. Businesses are feeling the need to adopt an "inclusive growth" model.

The main objective of a PGDM program is to develop future managers and potential leaders. If we take India, considering the start-up friendly policy of the government, the MBA program can also hope to ignite the entrepreneurial spirit in the students. But the truth is that there is still a deep chasm between industry and academia. This may be because of misplaced expectations, the inadequate engagement between both sides to understand each other's roles and reduce the information asymmetry between them. This gap has led to a situation such that many of the students passing out of business schools need lots of grooming after they enter the industry. Students realize that the theoretical knowledge gained by them is only of limited relevance in the industry.

Top B-Schools have now realized the need to add a special coaching module for developing the soft skills of their students. Bridge courses and value-added programs are a must. Notwithstanding all this, the fact remains that most PGDM students in second-tier B-Schools suffer from poor communication skills, and most of them suffer from inertia to take corrective action to improve their capabilities. There is only so much an academic institution can do for its students as beyond that students need to respond with their energy and enthusiasm. The best efforts taken by a business school become irrelevant if students do not show any interest.

Review of Literature

This section highlights how academia and industry can collaborate. This section also highlights the most recent research in this area. Lack of B-Schools of-academia interaction has been identified as the main lacuna in management education. Bridging the gap between business schools and industry for the proper allocation of resources to educational activities is essential. We also need to understand the root cause of this. Increase in demand for PGDM courses has often led to the complacency of business schools who maintain a narrow focus by insisting on imparting

technical skills. Their financial success makes the business schools resistant to change for the better. Academia has often been accused of a myopic view towards preparing students to face the industry and seeking industry intervention.

But business schools cannot afford to be complacent forever. Online learning tools like MOOCS and videos of Khan Academy are gaining popularity. Educational videos are available on You Tube. More and more companies are displaying a propensity to bring the teaching of management in-house versus outsourcing it. This means that disruption is going to be a big game-changer for B-Schools. Some business schools are experimenting with the flipped classroom model wherein students observe educational videos offline and discuss the same in the class. In Bangalore, a prominent builder has established Reva University which offers courses like PGDM. Wipro has already established Azim Premji University. Infosys has a separate training campus at Mysore. What would stop Infosys and Wipro from establishing a business school in the future? This is probably a threat to second-tier business schools.

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B-School Placement VS Research Focus:

Business schools often face the dilemma of trying to maintain a balance between the need to ensure 100% placements and the need to build research capabilities from a strategic perspective. [20] Both are important. Successful placements will lead to student enrolments year on year while building research capabilities will enhance the brand equity of the business school.

Guest Faculty:

Many management institutions of B-Schools organize guest lectures. But the question remains – how relevant are these? How are the topics chosen? What are the criteria for selecting a guest speaker or a guest lecturer? Guest lectures can light the fire in students about how exciting the field and practice are and how much career potential a particular field can offer. Teaching faculty has to be informed about the changing educational needs of the industry, so that teaching programs remain current.

Student Projects:

The Professional course PGDM program involves students doing projects. But this is an area which has never got the importance that it deserves. Students end up feeling that doing projects is only to gain marks and pass the examinations. Academic institutions often leave it to the students to find out a company where the students can do their dissertation project. The end result is sub-optimal.

Teaching Community – Human Capital for B-Schools:

Across the globe, teaching faculties are considered as a key asset for a business school. They represent the human capital of a management institution, and they need nurturing. But what is the reality? In many institutions in India, operational efficiency takes precedence over quality of teaching talent. With the job security of a professor linked to the number of admissions secured by an institution every year, one can very well imagine the plight of the teaching fraternity. Professors are, as per reports in some section of the media, confined to teaching jobs and certain administrative jobs. A research effort by a faculty member is seldom acknowledged; forget about getting rewarded for it. Consultancy assignments by faculty members are either scoffed at or discouraged even though this can generate revenues both for the teaching fraternity of the B-Schools.

B-Schools Academic Collaboration needs the active involvement of the teachers in a business school. A faculty publishing five research papers in a year should not be considered a good enough metric. How many of these research efforts have a profound impact on the industry? Has the teacher demonstrated his/her capability for transfer of research insights inside the classroom?

ICT Impact on B-Schools:

The rise of IT Technology has played a good way for various innovations. With the digitization of information, more and more businesses are increasingly leveraging the benefits of digital tools to improve their prospects. Information technology has been crucial in turning this process into a complete success. Information technology has dramatically transformed the lives of individuals. It provides businesses the scope to analyze data and plan business strategies accordingly. Utilizing information technology means that the data analysis is accurate, thus optimizing profits. Information technology has a major impact on various aspects of businesses. Let's take a look at some of these here.

Online e-Resources availability with Gender and College wise.

Types of e-databases	Male		Female		SSIM		IPE		NMIMS		ABS		Grand Total	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
ProQuest ABI/Inform	2.48 (0.70)	14	2.52 (0.70)	12	2.65 (0.65)	15	2.46 (0.67)	14	2.54 (0.68)	13	2.30 (0.79)	13	2.49 (0.70)	13
EBSCO(Business)	2.43 (0.74)	17	2.44 (0.73)	17	2.69 (0.63)	14	2.38 (0.72)	17	2.59 (0.63)	11	1.96 (0.83)	18	2.43 (0.74)	15
CAPITALINE	2.40 (0.75)	19	2.49 (0.69)	14	2.77 (0.55)	9	2.38 (0.69)	16	2.53 (0.64)	15	1.96 (0.87)	17	2.42 (0.73)	18
CMIE	2.43 (0.72)	15	2.39 (0.76)	19	2.69 (0.61)	13	2.36 (0.75)	18	2.54 (0.69)	14	2.05 (0.72)	16	2.42 (0.73)	17
CRISIL	2.37 (0.73)	18	2.46 (0.69)	16	2.75 (0.51)	11	2.28 (0.73)	19	2.47 (0.69)	18	2.27 (0.77)	14	2.42 (0.71)	19
ISI Emerging Markets	2.77 (0.54)	7	2.75 (0.54)	7	2.75 (0.51)	10	2.73 (0.58)	7	2.83 (0.46)	4	2.58 (0.60)	10	2.74 (0.54)	7
M&A Deal Database	2.54 (0.81)	13	2.51 (0.79)	13	2.41 (0.85)	19	2.72 (0.60)	8	2.66 (0.68)	8	1.81 (0.94)	19	2.49 (0.81)	12
WARC (World Advertising Research Center)	2.79 (0.55)	4	2.79 (0.55)	6	2.94 (0.32)	2	2.70 (0.62)	9	2.77 (0.58)	7	2.84 (0.49)	2	2.79 (0.55)	4
World Bank Data	2.86 (0.44)	1	2.88 (0.38)	1	2.95 (0.24)	1	2.82 (0.48)	1	2.88 (0.39)	2	2.86 (0.46)	1	2.87 (0.42)	1
LexisNexis Academic	2.78 (0.54)	6	2.81 (0.50)	4	2.88 (0.41)	3	2.76 (0.54)	4	2.83 (0.46)	6	2.67 (0.67)	9	2.79 (0.52)	6
ISID Database: Institute for Studies in Industrial Development	2.70 (0.59)	8	2.59 (0.66)	10	2.78 (0.53)	8	2.61 (0.63)	11	2.57 (0.67)	12	2.81 (0.52)	4	2.66 (0.62)	10
Bloomberg	2.83 (0.47)	2	2.85 (0.45)	2	2.83 (0.46)	5	2.78 (0.51)	3	2.89 (0.38)	1	2.81 (0.50)	3	2.83 (0.46)	2
India Business Insight (IBID)	2.79 (0.50)	3	2.83 (0.44)	3	2.83 (0.43)	6	2.79 (0.48)	2	2.83 (0.42)	5	2.74 (0.63)	7	2.80 (0.48)	3
ACE Equity (Offline)	2.77 (0.53)	5	2.81 (0.51)	5	2.80 (0.57)	7	2.74 (0.54)	5	2.84 (0.43)	3	2.77 (0.61)	5	2.79 (0.52)	5
The Economist	2.48 (0.73)	12	2.47 (0.72)	15	2.51 (0.70)	17	2.44 (0.74)	15	2.52 (0.72)	16	2.44 (0.74)	12	2.48 (0.72)	14
Wall street Journal	2.42 (0.74)	16	2.43 (0.72)	18	2.44 (0.70)	18	2.48 (0.73)	13	2.45 (0.71)	19	2.26 (0.78)	15	2.42 (0.73)	16
EconLit	2.69 (0.57)	9	2.70 (0.56)	8	2.74 (0.48)	12	2.73 (0.53)	6	2.60 (0.66)	9	2.75 (0.50)	6	2.69 (0.57)	8
Business Source Complete	2.66 (0.60)	10	2.65 (0.63)	9	2.86 (0.40)	4	2.68 (0.59)	10	2.51 (0.71)	17	2.72 (0.55)	8	2.66 (0.61)	9
J-GATE	2.56 (0.69)	11	2.56 (0.69)	11	2.57 (0.58)	16	2.53 (0.73)	12	2.59 (0.68)	10	2.55 (0.72)	11	2.56 (0.69)	11

Between Respondents	Spearman rank correlation values	Level of Significance
Male-Female	$r = 0.933^{**}$	Significant at 1 Percent
SSIM- IPE	$r = 0.581^{**}$	Significant at 1 per cent
SSIM- NMIMS	$r = 0.512^{*}$	Significant at 1 per cent
SSIM – ABS	$r = 0.760^{**}$	Significant at 1 per cent
IPE –NMIMS	$r = 0.833^{**}$	Significant at 1 per cent
IPE – ABS	$r = 0.712^{**}$	Significant at 1 per cent
NM-ABS	$r = 0.593^{**}$	Significant at 1 per cent

The Table 3 presents that the respondents of Male and Female, SSIM, IPE, and ABS type of e-databases available in their libraries assigned rank 1 to World Bank Data but the respondents of NMIMS 2nd rank. The respondents of Male and Female assigned 2nd rank to Bloomberg but the respondents of NMIMS 1st rank, IPE and ABS 3rd rank and SSIM 5th rank. But in case of other print resources there is no consistency as varied responses of varied nature. But the last rank of 18th and 19th is assigned to CAPITALINE and CMIE. It is concluded that majority of the respondents of all categories assigned 1st and 2nd rank to World Bank Data and Bloomberg.

There are significant differences in their type of e-databases available in their libraries among the respondents of Male and Female, SSIM and IPE, SSIM and NMIMS, SSIM and ABS, IPE and NMIMS, IPE and ABS and NMIMS and ABS as indicated by chi-square values which are significant at 0.01 per cent level with nine degrees of freedom.

Cloud computing the main concept of Cloud Computing is very very popular among businesses owing to the efficiency in business operations that it provides. Cloud computing utilizes information technology to capitalize on its ability to provide improved agility and time and resource management for businesses.

The library Automation of Business Processes: The movement towards increased automation of business processes has gained traction over the years. It improves efficiency and increases workflow considerably. Information technology helps in developing automated processes for businesses. This not only helps in reducing the cost of operation but also saves time. The time was saved can be utilized to focus on other tasks, thus speeding up business processes significantly.

Working Remotely Implementation of information technology provides the ability to remotely access your company's network. As a result, it equips employees with the ability to get the work done even if they are not physically present at the workplace.

Mobile Technology Mobile technology has picked up momentum owing to its convenience, efficiency, and speed. With the rise in the popularity of information technology, the implementation of mobile technology has gained ground quickly. The trend of Bring Your Own Device is on the rise, owing to increased employee satisfaction. So many as 74% of the organizations are already utilizing this trend or plan on doing so in the future. The BYOD market is estimated to reach \$181.39 billion by 2018.

Protecting Information: Every B-School Institution has a mammoth database comprising various information related to business transactions, client details, and so on. Such information is extremely valuable to a business and can cause a host of legal issues if it is lost. This is where information technology becomes relevant and provides the right resources to store information in a way that ensures maximum protection.

The Open Source Software: The IT has paved the way for various open-source software that allows the usage of certain tools for various organizations. The main benefit of open source

software is its flexible license. This allows modifications to the source code. This means that you have the facility to customize its functions according to your requirements.

Total Quality Management(TQM) in Management Education:

Applying TQM in management education, the customer here is not only the students but also the industry. The TQM philosophy is based upon collective responsibility, accountability, and participation, process and performance expectation and concurrent performance appraisal, transformational leadership, benchmarking, kaizen, etc. TQM, in fact, demands a change based on the needs of the customers and not the value of the providers.

Conclusion

This paper addressed the vast chasm that exists in industry-academia collaboration in the field of management education. What is needed is a significant change in thought leadership to devise innovative ways of cooperation between industry and academia. Synergy can result due to a proactive approach between industry and academia. It can prove to be a win-win situation. There are different strategies to make this collaboration productive, but this will need a significant change in the way the business schools and academia think about the partnership. B-Schools should realize the value of their human potential and target imbibing a total quality management philosophy to deliver higher value to their students, the business world, and society. There are different collaboration protocols available, and each one of them can provide substantial benefits in the long run. Student projects deserve more serious attention in terms of establishing good networks with the business world.

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Need and Use of E-resources in College Libraries

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Abstract - Academic libraries are the hubs of knowledge and hence are considered as integral parts of academic life. The advent of Information and Communication Technology has led to the use of electronic resources in libraries. New technologies have always been of interest for libraries both for the potential of increasing the quality of service and for improving efficiency of operations. At present libraries of all kinds whether public, research academic or special libraries are overwhelmingly looking forward to adopt new technologies and mostly use e-resources due to their potential for cost savings in operations and the management of collections and Patrons. E- Resources are digital objects containing electronic representation of books, journals and other forms of reading materials and are converted into a digitized form in order to be read by a computer. Many Library resources are now available electronically and can be accessed via the web. The study therefore, recommends that efforts to improve the use of e-resources in the Library should include the ways of creating user awareness, training/workshops for users and staff, and responding to the challenges confronting utilization.

Keywords: E-Resource, Academic Libraries, Library Use, User Awareness.

1. Introduction

The twentieth century was shaped by sweeping changes in communication technologies. The emergence and use of information technology is the century's most significant development affecting scholarly communication. The application of computers to information processing has brought several products and services to the fore. Consequently, the academic community has undergone tremendous changes during these years, assuming new dimensions influenced by

technology-driven applications. Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service structures. Thus Libraries are using technology to improve the management of scholarly information to strengthen and speed access to scholarly information not held locally. Over the last several years, a significant transformation has been noticed in the collection of development policies and practices. Print medium is increasingly giving way to the electronic form of materials. Ani (2008) states that "the transition from print to electronic medium apart from resulting in a growth of electronic information, has provided users with new tools and applications for information seeking and retrieval. Electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting."

The digital resources available in a library play a prominent role in facilitating access to the required information to the user in an expediency manner. Electronic resource is one of the emerging environment in libraries and information communication in the competitive service. E-Resources usually consist of e-books, e-Journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs which are likely to be the alternative to the print media. The familiarity and use of electronic information resources in the libraries for rapid development is necessary and important. The rapid growth of new technologies has changed the communication process and reduced the cost of communication for individuals. Electronic information sources can be seen as the most recent development in information technology and are among the most powerful tools ever invented in human history. Electronic information sources are becoming more and more important for the academic community. This paper contributes how library usage is changing as a result of the advances in networked electronic services.

Ani (2008) states that "the transition from print to electronic medium apart from resulting in a growth of electronic information, has provided users with new tools and applications for information seeking and retrieval. Electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting. The advantages of e-resources are access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. This rapid emergence and development of electronic information technologies therefore makes it possible to envision radically different ways of organizing the collections and services the

library has traditionally provided. While libraries approach a crisis point in financing collection development, these new technologies offer possible ways to reduce costs and revolutionize ways to access information.

2. Concept of E-resources

Electronic resources are now becoming very popular the users. E-Resources are helping in various fields like teaching, research and creativity. "E-resources term is used to describe all of the information products that a library provides through a computer network. AACR defines an electronic resource as material encoded for manipulation by a computerized device. "E-resources are those resources which include documents in electronic or e-format that can be accessed via Internet in digital library environment. E-resources are that electronic product that delivers a collection of data, be it text, image collection, other multimedia products like numerical, graphical mode for commercially available for library and information centre's. These may be delivered on CD-ROM / DVD, over the Internet and so on".

Electronic resources are the electronic representation of information. There are available in various forms like e-books, digital libraries, online journal magazine, e-learning tutors and on line test. Because of the effective presentation with multimedia tools, these e-resources have become the source of information. Electronic resources deliver the collection of information as full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology etc. E-resources may include e-journals, e-discussions, e-news, data archives, e-mail on line chatting, etc. Electronic resources represent an increasingly important component of the collection building activities of libraries. "Electronic resources" refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the Internet or locally. Some of the most frequently encountered types are:

- E-journals • E-books • Full-text (aggregated) databases • Indexing and abstracting databases • Reference databases (biographies, dictionaries, directories, encyclopaedias, etc.) • Numeric and statistical databases • E-images • E-audio/visual resources, etc.

Electronic resources present a number of challenges not encountered with the selection and acquisition of traditional analog materials and it

is advisable for the library to develop clear policies and processes for the selection and management of such resources. This will provide clarity to staff and ensure that electronic resources within the library are developed with due consideration of cost, technical feasibility, licensing, access and preservation requirements, and constraints.

3. Types of E-resources

The resources to which "electronic" applies (in the context of collections development) include:

- Online Electronic Resources
- Web Sites - Open Access and Full-Text
- Web Sites - Bibliographic
- Electronic Journals
- Data Files

E-books: Electronic-books are advance version of printed book which is provided by electronic device like computers and Internet. It can be read at any time through computer, ipad, mobile etc.

E-journals: An Electronic Journal (known as e-Journal) is a journal which is published online. According to *School of oriental and African studies University of London* "An electronic journal is a periodical publication which is published in electronic text (e.g. PDF) or hypertext format and is available for access in electronic format e.g. on the Internet or on a CD-ROM" (Davis, 1997)

Electronic Pre-prints and E-Prints: Electronic pre-print are research articles that are made available for distribution through the network in electronic format before they go through the process of peer reviewing whereas E-print is a term generally used to describe electronically mounted copies of the final, peer-reviewed versions of journal articles.

E-database: HKIED Library online Tutorial has defined: "An e-database is an organized collection of information, of a particular subject or multi-disciplinary subject areas. The information of an e-database can be searched and retrieved electronically." (Sharma, 2005) Another definition given by *Bangor University Library & Archives Using Library E-databases* "E-databases are online collections of resources, for example:

- A collection of journal articles.
- A collection of abstracts (short descriptions of articles and other resources).
- A collection of newspaper articles.
- A collection of books.

4. Need and Purpose of E-resources in College Libraries

Information technology has changed the world and acts as the important tool for retrieving information. Now a days, library collections are not limited to printed document but also use electronic resources.

- Electronic resources have become the vital part of human life in 21st century.
- The availability of scholarly publications through electronic medium or internet has a greater impact on information requirements of the researcher.
- Now a days, majority of the print and Electronic scholarly publishers and information disseminators increasingly act globally to produce e-information which includes full text database of journals, books, patents, standards or technical report, dissertations, theses, annual report etc of a particular publisher or a group of publishers.
- If libraries are not changed accordingly, they will not get the benefit of globalization. So there is a great need of globalization in libraries to provide maximum information to its users. By just pressing a button on keyboard, we can tell our user about the latest information available in his field.
- Electronic resources are very useful in changing habits of writers and readers.
- They are also helpful in changing the pattern of serving the library users

5. Selection and Collection of E-resources

While traditional collection development criteria, such as subject, level and target audience apply to the selection of most electronic titles, the management of this format is more complex and as such, it is a good practice to develop a supplementary policy which addresses specific format related issues. Such a policy should be used in conjunction with the more traditional collection development policy and not in isolation.

The policy should provide guidance to assist selectors in establishing the library's expectations and preferences in relation to:

Technical feasibility - including, but not limited to:

- a. Availability, e.g., remote access, stand-alone access.
- b. Authentication, e.g., IP [Internet Protocol] filtering or login password.
- c. Hardware and software compatibility and capability.
- d. Storage and maintenance, e.g., remote hosting v. local hosting.
- e. Platforms which facilitate access to e-resources.

Functionality and reliability - including but not limited to:

- a. Search and retrieval functionality, e.g., truncation, browsing, search history, transliteration.
- b. Exporting and downloading, e.g., printing, e-mail, downloading to a machine, and downloading to an electronic device.
- c. Sorting and ranking abilities for database results. For example: author, title, date, relevancy, facets, etc.
- d. Interface, e.g., system intuitiveness, navigation, help and tutorials.
- e. Integration.
- f. Reliability and availability, e.g., response times, 24/7 access.

Vendor support - including but not limited to:

- a. User training and support.
- b. Trials and product demonstrations.
- c. Technical support and system notification process.
- d. Statistical reporting.
- e. Customization, e.g., branding.
- f. Provision of bibliographic data, e.g., MARC records.
- g. Data security and archiving policies.

Supply - including but not limited to:

- a. Purchase model, e.g., purchase, subscribe, pay per view, rental.
- b. Pricing models, e.g., selective v. big deal.
- c. Access options, i.e. single user, multiple users.
- d. Archiving and post termination rights.
- e. Maintenance fees.
- f. Cancellation rights.

Licensing - including but not limited to:

- a. Model/Standard license.
- b. Governing laws.
- c. Liability for unauthorized use.

- d. Definition of authorized users.
- e. Definition of authorized sites.
- f. Fair use provision.
- g. Termination.
- h. Refunds.
- i. Period of agreement.
- j. Compliance with the governing laws of the libraries or consortiums legal jurisdiction (province, state, country).

The policy should also provide guidance to assist selectors on format preference when faced with the choice of content available in both print and electronic formats. Considerations relating to format preference, including decisions on de-duplication (i.e. where titles are already acquired in multiple formats), may include, but are not limited to, the following.

- a. **Currency** – resources with print equivalents should not lag behind their print counterparts.
- b. **Value for money** – the electronic resource should provide sufficient added value over the print equivalent of other formats (e.g., increased functionality, increased accessibility).
- c. **Accuracy and completeness** – the electronic resource should reflect the same or increased content as compared with the print equivalent.
- d. **Duplication** – duplication may be considered if the electronic publication is not archived and retention is expected, if the cost of duplication is minimal and if multiple formats meet the needs of different users in terms of access and convenience.

Finally the policy should also provide clear guidance on cycles of review and de-selection policies for electronic resources where additional criteria related specifically to format, such as obsolescence, platform reliability, etc., may apply.

The formulation of an electronic information resources collection development policy should help ensure consistency of approach and ensure that the electronic resources acquired are appropriate and that due consideration is given to the full cost (immediate and ongoing). The policy will also ensure that electronic resources can be fully exploited by reducing exposure to a variety of risks and potential liabilities.

For traditional library materials, the selector makes the decision to acquire an item with only limited consultation with other departments following

the established policies and guidelines. Electronic resources present a number of hurdles not encountered with traditional library materials.

6. Conclusions and Recommendations

The fast growth of information and communication technologies and particularly internet and electronic resources have changed the traditional methods of research, storage, retrieval and communication of scholarly information. Now a days, internet has emerged as the most powerful medium for storage and retrieval of information. In order to retrieve relevant information, users have to make use of different electronic and web resources. The rapid developments in information communication technology have facilitated the convergence of new electronic devices and formats. Information has been embedded in a variety of ways and forms in various kinds of electronic resources. Electronic resources are providing new platforms for information access, to overcome the challenges of meeting the changing information needs and identify attitudes of academic users toward electronic resources owing to their perceived effect on teaching, learning and research.

1. The acquisition of Information and Communication Technology skills is acknowledged as one of the key learning objectives for its students so that students will be fully equipped to cope with the information intensive world. To this end, more practical courses on Information Communication Technology should be inculcated in the curriculum.
2. The library management should organize periodic training on the use of electronic resources for the undergraduate students.
3. The College management should as a matter of importance acquire, subscribe and create access to electronic resources.

Hence, the college libraries should develop a relevant electronic collection development policy to support the sustainable subscription of electronic resources across academic disciplines to enhance the efficiency of teaching, learning and research process. Similarly, the policy for sustainable digitization of relevant library materials should be evolved to promote accessibility and utilization of library resources effectively in digital format. The National Digital Library of India should increase the current state of electronic journals/books and online databases in all academic disciplines to enhance the accessibility and utilization of electronic resources for all types of Higher Educational Institutions in India. The college Libraries should put in consorted effort for the

sustainability of subscription to more online databases to boost accessibility and utilization of electronic resources in India.

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RFID: THE BIG PERFORMER IN THE FUTURE LIBRARIES

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Abstract

The paper analyses the need for different kinds of information security in the libraries. Radio Frequency Identification (RFID) is a general term that is used to describe a system that transmits the identity like a unique serial number of an object wirelessly, using radio waves. The Radio Frequency Identification System is increasing used in libraries for library automation. The paper discusses the recent developments in RFID Systems as well as the next generation use of RFID. This paper attempts to highlights the RFID adoption, initiatives, libraries use in India.

Keywords: RFID System, information security, library security, barcode, security measures, tags, theft detection, circulation system.

Introduction

The twenty-first century witnessed rapid growth and advancement in information processing, storage and communication technology. It revolutionised the role of the librarians and libraries in disseminating information services to users all over the world. Due to the development of Information Technology, the library and information system have re-organised their collection and services, to satisfy the user needs. As a result, the libraries are facing new computers, new requirements, new expectations and also new security challenges. RFID Technologies is a generic term for technologies that use radio waves to identify objects automatically. The essential parts of an RFID system are a tag, which is made up of the microchip with a coiled antenna, an interrogator or reader with an antenna. Electromagnetic waves are emitted by the reader that forms a magnetic field when they "couple" with the antenna of RFID tag. The tag draws power of the magnetic field, and it uses to power the microchip's circuits. The Chip then modulates the waves that the tag sends back to the reader which the reader converts into digital data. The RFID tag broadcasted the data provides identification and other desired specific information. The cards are microchips which can store a wide range of unique information that can be read from a distance and through a variety of obstacles.

What is RFID?

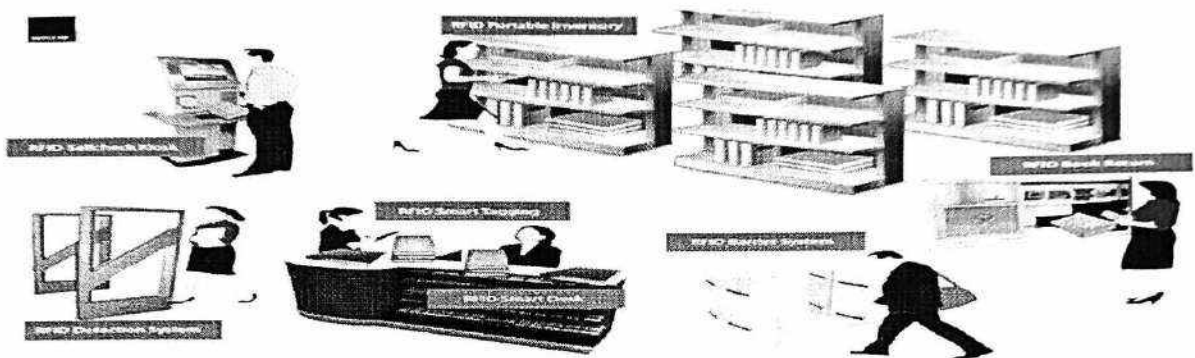
RFID which stands for Radio Frequency Identification is an electronic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. It a very important business and technology tool. It holds the promise of replacing existing identification technologies like the bar code. It provides for "sightless" or no lines of sight identification of items. RFID is a combination of radio-frequency-based technology and microchip technology.

Why RFID?

The task receiving, transporting, sorting and shelving materials have exploded in recent years. Library staff size remains constant at best while circulation and materials management continues to grow. Librarians are now in the business of moving books around rather than practising librarianship, reference and patron service. RFID provides a solution to automate much of the handling and return staff to the business of customer service.

How to Works RFID?

The RFID tag has a non-powered radio antenna, which can be communicated to by a powered antenna belonging to a tag reader on scanner or security gate. Although it is not necessary that the two antennas "see" each other as is needed with a traditional bar code, it is essential that they be relatively close to one another since the wattage used by the powered antenna is very low for health and safety reasons.



RFID Applications in the Libraries

RFID Technologies are used in the following three areas in library operations.

1. **Electronic Surveillance:** RFID Technologies are effectively used for surveillance in libraries. Whenever a user is moving out of the library with books, etc., the sensor examines whether the items are legitimately checked-out by the user. It can immediately raise the alarm to alert the library staff if it senses any illegal movement of articles from the library.
2. **Transaction Operations:** RFID can provide an effective mechanism for faster check-in and check-out of library materials. Self-operated systems can be operated by the users themselves thereby reducing the need of library staff for such operations. It has many advantages over other systems like barcodes.
3. **Inventory Management:** Stock verification and locating misplaced books can be done quite easily by using RFID enabled portable scanners. Another advantage is then an activity like stock verification can be done without even disturbing the day-to-day operations in the library.

RFID Technology & Architecture in the Libraries

Radio Frequency communication occurs by the transference of data over electromagnetic waves. This electromagnetic wave and its effect can be mentioned at the receiver far from the source, which then identifies it.

An RFID System can be made from the following three components, and they are

1. An RFID tag or usually known as a transponder
2. The RFID reader or usually known as a transceiver
3. Data processing subsystem.

RFID Tags

The heart of the system is the RFID tag, sandwich-type tags which can be fixed or posted inside a book's back cover or directly onto CDs and videos, Flexible, small labels and that are pasted directly to library items and others.

RFID Reader

RFID reader consists of an antenna, Transceiver and decoder, which sends periodical signals to inquire about any tag. The reader powers an antenna to generate a Radio Frequency field. When a tag passes through the area, the information stored on the chip in a tag is interpreted by the reader and sent to the processor or server, which in turn communicates with the integrated library system when the RFID system is interfaced with it.

Readers in RFID library are used in the following ways

- Input station: where library data is written to the tag.
- Circulation work station: used to charge and discharge library materials.
- Self-check-in and out station used to check in-out library materials without staff assistance.
- Exit sensors of the book drop reader to verify discharging and reactive security.

Data Processing Subsystem or Server

The server is the heart of the RFID system. It is a communication gateway as it receives information from one or many readers and exchange information with the circulation database. The server typically includes a transaction database.

RFID Stands

RFID stands are critical RFID stands to deal with the following:

- ❖ Air interface protocol: The way tags and readers communicate.
- ❖ Data Content: Organizing of data.
- ❖ Conformance: Tests that product meets the standards.

Operating Principles of RFID System

There are many different operating principles for RFID Systems. The most important laws are inductive coupling "and "backscatter coupling".

Inductive Coupling

In inductive coupling a single microchip and a large area coil that functions as an antenna. Inductive coupling transponders and almost operated passively. It means that all the energy needed for the operation of the microchip has to provided by the reader for the purpose.

Backscatter Coupling

It is similar to Rader Technology in Radar Technology electromagnetic waves are reflected from the objectives, and this reflects electromagnetic waves is described by its reflections cross-section, and backscatter coupling is working on this principle.

Applications of RFID

There are two main areas of applications one is proximity, and another is vicinity means short range and long range. Extended range means to track and trace, for example, traffic control system.

Other Applications of RFID's are:

- RFID and Library
- Person Identification
- Access Control.

RFID Security

Through the RFID shortly every single object will be connected to the interest through wireless address and unique identifier. For the example for future imagination with RFID security.

Advantages of RFID Technology System

- ❖ Faster Check-in and Check-out Operations
- ❖ Reduced Manpower Requirement
- ❖ Easy Stock Verification
- ❖ Faster Sorting and Shelving of Books
- ❖ Increased Security
- ❖ Management and Technical Concerns
- ❖ By placing RFID Tags hidden from eyes and using it for stealth tracking
- ❖ Using the unique identifiers provided by RFID for profiling and identifying users.
- ❖ Using hidden readers for stealth tracking and getting personal information
- ❖ Self-charging and discharging
- ❖ Reliability
- ❖ Automated material handling
- ❖ Tag Life
- ❖ It is a faster and highly reliable system
- ❖ It is easier and user-friendly
- ❖ Save the time the staff assisting the library user
- ❖ The Regular Inventory Control and update of the database information is possible.
- ❖ Allows accuracy in collection development,
- ❖ Reduces the cost material and handling.

Disadvantages of RFID Technology System

- ❖ RFID Integration Problems with other systems
- ❖ High Cost
- ❖ Reduced Staff/Patron Interactions
- ❖ Managerial Considerations
- ❖ Radio Waves can't pass through metal and liquid at certain frequencies
- ❖ Longevity factor or the economic lifetime of an RFID system is also not specified
- ❖ Lack of RFID standardisation is also one of the drawbacks

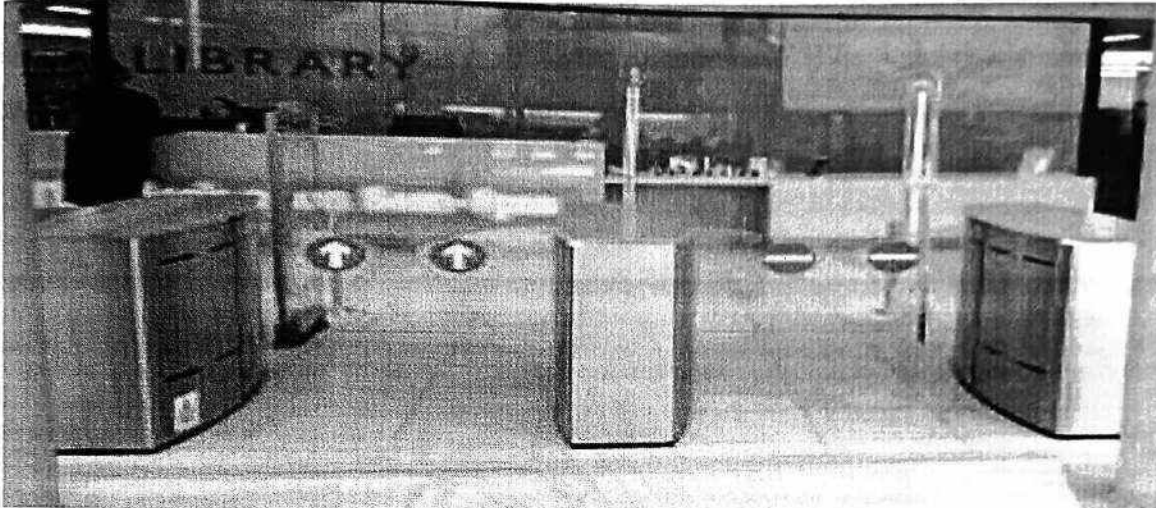
Suggestions for Implementing RFID System

Technology Implement for the security, all these security measures can be applied only in the library premise, but one of the significant threats to the libraries is the protection of the reading material outside the library premises.

IT Security

Computers are often attached to a network that is shared by staff computers and servers that store sensitive information. Making public access work stations available to the

public can, therefore, provide an entry point through which users could obtain unauthorised access to resources and cause damage or loss of data.



Network Security Issues in the Library

- Workstation security
- File system security
- Backups
- Remote access controls
- Port restrictions
- Filtering
- Access control and authentication measures
- Firewall Proxy Servers and border routers.
- Protection Strategies:
- Never assume that default software installation is secure
- Always require strong authentication
- Close all unused ports
- Use anti-virus software
- Use Desktop Security software
- Continuously monitor logs
- Keep software patched.

Conclusion

RFID Technology promises to change our world. It has the capability of making our personal lives, and our work lives in the library more convenient. At Present we need to stop theft, and this is the main problem faced by many librarians and libraries, in other words, security is the main factor for librarians and libraries. RFID Technology provides us with high protection and solves this type of problems. The conclusion we can say that different library security systems are helpful to make libraries more secure and user-friendly. Though they are not 100% error proof yet, they can contribute positively.

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THE MONEYED CLASS DILEMMA IN AUGUST WILSON'S *RADIO GOLF*

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Abstract:

August Wilson, the most renowned African-American dramatist, generally explores the life and experiences of working-class Africans in America. Nine out of the ten plays in his *Pittsburgh Cycle* mirror the plight and predicaments of such poor blacks. However, the last play of the cycle, *Radio Golf* casts light on the rare rich Afro-Americans who are in a dilemma of their identity. Some of the rich blacks wanted to shed their African identity in order to become complete American whereas the others would want to sustain their rich cultural heritage for they believed that it would offer them a solace whenever they felt alienated on the white land. Wilson aptly presents this conflict of 'double consciousness' in *Radio Golf* towards the end of which he also offers convincing solution. The paper is a modest attempt to explore the dreams, realities and attitudes of the moneyed class Afro-Americans.

Index Terms: African-Americans, aspirations, cultural heritage, Golf, Identity, Real Estate

Introduction

August Wilson was a powerful theatrical voice of African-Americans for he echoed the troubles and trauma of his coloured community in America through his decade-by decade ten plays of 20th *Century Cycle*. The final play of the cycle and of the dramatist himself, *Radio Golf* was written and first premiered in 2005. It throws light on the African-American experiences of 1990s, especially of the rich class. It was the decade when blacks were gradually flourishing socially, economically and politically as well. The educated blacks were getting better employment opportunities as were the business class who were allowed to mainstream trade. The coloured could find better access even in politics. So, the poor African-Americans could turn middle-class and the latter, in turn, could become rich. Thus, the time was ripe enough for the ever-struggling blacks to prove their prowess and to enjoy equal rights and status with the whites. However, they were still in a deep dilemma due to identity crisis. They could not decide on whether to remain African-Americans or to become complete Americans in terms of their belongingness, culture and heritage. This is the focal point of the play *Radio Golf* as pointed out by Hedy Weiss, a famous theatre critic.

Radio Golf is about the emergence of a powerful black 'moneyed' class that began to flower in the 1990s, as college educated blacks began taking their place in banks and boardrooms and high political offices. But it is also a stern warning to that new bourgeoisie that it is still on shaky ground and ever-ripe for corruption, and that if those who have 'made it' deny their history – and forget their fellow blacks who have failed to rise – they will only end up fooling themselves (Weiss 42).

Blacks into golf- symbolic significance

The title of the play itself is an evidence that it deals with the upper-middle class and the rich people of the black community because the sport golf was not accessible to the poorer sections of their society. It was considered a symbol of status for the aristocratic whites. "Golf-with its lavish disregard for time and money is a symbol of the two men's bourgeois achievement and of their burden, which is to assume the attitudes and the leisure activities of the white man" (Lahr; *New Yorker*). However, the coloured rich also tried to involve themselves gradually in the sport. Their longing for the sport symbolizes their crave for equal status with the whites. Stewart aptly points out, "In the play, golf stands for newfound privilege to which some African-Americans at the end of the end of the twentieth century have access" (177).

Afro-American realtors against their own community

Having been set in 1997, the play centres around the aspirations of two best friends, Harmond Wilks and Roosevelt Hicks. Besides being thick friends and roommates since their college days the two have become business partners. They hold equal shares in Bedford Hills Redevelopment, Inc. which involves in revitalising the city of Pittsburgh by demolishing the old and dilapidated buildings and constructing new commercial complexes in their places as a part of the much controversial Urban Redevelopment project of the white government. Though the project was started with the positive intent of improving the infrastructure of the city, it proved hostile for the African-Americans. Thousands of the blacks had to lose their houses for commercial buildings that offered no place for the victims but helped the massive raise of private real estate investors. "An entire neighbourhood was destroyed (to be replaced by Civil Arena), displacing 8000 residents (most of whom were poor and black)" (Laurance 89).

There was severe criticism against the project during 1970s and 1980s. So, the white administrators tactically involved black realtors like Harmond and Roosevelt in 1990s to assuage the black protest. Despite being blacks themselves those realtors started demolishing their own African-American neighbourhood for commercial success. Furthermore, the coloured were offered little compensation unlike the whites who would get high prices for their dwellings. That was severe injustice yet the black realtors paid no attention to it. The two partners, in the play, have invested almost 200000 dollars on buying the old buildings mostly belonging to the blacks and wait badly for the declaration of blight. "If the blight doesn't come through in six months the bank will have the keys and Arleen's new Saab" (Wilson, *Radio Golf* 12). When the U.S government declares blight the two celebrate by singing and dancing but they ignore the fact that they are tearing down their own black neighbourhood in their selfish quest for money-making.

Two best friends -Two different Identities

In spite of being close friends as well as business partners Harmond and Roosevelt seek their identities in two entirely different ways. The former always associates himself with African- American identity whereas the latter wants to gain his identity through his associations with the whites. Harmond's insistence to name the local health clinic after Sarah Degree, the first Afro- American nurse evidences his loyalty to his race right at the beginning of the play. "Sarah Degree was the first black registered nurse in the city. Naming it after her fits perfectly" (R.G. 10).

Roosevelt's desire to collaborate with Bernie Smith to own the WBTZ Radio despite Harmond's warning against makes it clear that he is ready to forgo his Africanness to achieve material success. His fondness for his visiting cards to be distributed to the white golfers also reveals his dependence on the whites for his identity. Harmond, on the other hand, wants the blacks to be self-dependent. He aspires to become first Afro- American mayor of the city and to prove the capability of the underrated race. However, he does not intend to harm the whites but to create equal opportunities for both the races. "I'm going to be the mayor of everybody. It's not about being white or black, it's about being American" (R.G. 56). The blacks could never get equal rights or facilities during the mayorship of the whites. They were badly neglected and ill treated for their skin colour. However, some blacks like Roosevelt are still ready join hands with the whites against their own people. Nevertheless, Harmond wants blacks to be self-reliant.

1839 Wylie - a test for loyalty

The character of Old Joe is central for the dramatic action of the play. He is the owner of 1839 Wylie, an old and abandoned building which is set to be torn down by Bedford Hills Redevelopment company. Harmond and Roosevelt claim that they bought the house from the city in an auction and they are going construct a ten-storey commercial complex with 180 flats after knocking it down. However, the old man is unaware of the sales and so he wants to retrieve his ownership and stop its demolition. "Only thing I didn't sell it. I tried to tell them but they wasn't listening. They told me they sold it 'cause I owed back taxes" (R.G. 34). This brings forth how the Urban Redevelopment affected the poor blacks in late twentieth century.

Harmond tries to pacify Old Joe by offering him 10,000 dollars but he doesn't accept it since the house is not just an ordinary building for him. 1839 Wylie actually belonged to Aunt Ester, the spiritual mother of African-Americans. She was a soul-cleanser who would offer solace and redemption for the suffering blacks upon visiting her house. Old Joe is her heir apparent and therefore inherited the house after her death in 1985. So, the place is of spiritual significance for him to sell it out.

1839 Wylie Avenue is a sacred ground, the home of the now-deceased mother of the race, the most significant persona of Wilson's ten-play chronicle of the African-American experience. She is none other than the ultimate ancestor, and Ester. Aptly named after the woman who saved her people in the Old Testament (Booker 84).

The two black realtors cannot realise the cultural value of the house. They only look at the material prospects it fetches for them. So, they do not empathise with Old Joe who passively resists them. However, the intervene of Sterling Jackson, a self-employed building contractor into the matter heightens the conflict. He, being one of the ardent devotees of Aunt Ester, knows the power of the holy dwelling and so challenges the realtors against the impending destruction of it. "If you fuck with Mr. Barlow's house...if you move one goddamn pebble...You gonna have to answer me on the battlefield. We can deal with this old-fashioned way. It ain't gone out of style. It just got different levels see..." (R.G. 51).

Sterling is a staunch follower of Black Power ideals to safeguard the rights of the black folks. He strongly opposes white hegemony and believes that it is very important to sustain African cultural heritage for the blacks to live in harmony in white America. The death of Aunt Ester, according to him, is a great loss to the African-Americans. So, he wants to save at least her sacred house to prevent themselves from further doom. That is why he scorns at Harmond when he says that they are reconstructing the Hill District by tearing down 1839 Wylie and other old buildings. "How you gonna bring it back? It's dead. It take Jesus Christ to bring it back.

What you mean is gonna put something else in its place. Say that. But don't talk about bringing the Hill back. The Hill District's dead" (R.G. 15).

Harmond eventually realises that he has purchased the house unlawfully. He also comes to know of his family lineage. He is, in fact, a descendent of Aunt Ester's family and thus a close cousin of Old Joe. This realisation awakens his spirits and makes him understand his roots. So, he decides against the demolition of the holy house, this leads to a serious conflict with his partner, Roosevelt who is willing to sell even his cultural legacy to grow rich. He does not have any social responsibility towards his people and behaves like an individual. Wilson's dramatic art often stresses the need for being loyal to one's community. Through Harmond's character he emphasises it yet again. The rich realtor is quite willing to forgo his fame as trader and even his political aspirations in order to be loyal to his race. He is, thus, able to overcome his cultural dilemma unlike his business partner and life partner.

Roosevelt goes to the extent of expelling Harmond from the Bedford Hills Redevelopment by bringing in his white partner Bernie Smith but Harmond is well aware of such cunningness and he, in turn, sends Roosevelt off his office calling his disloyalty to his race an act of prostitution. "How much he pay for something like that? After he rolls over and puts his pants back on, what you got? A hundred dollars? Three hundred dollars? Or are you one of them high-class thousand-dollar whores?" Harmond's wife, Mame Wilks also tries her best to evade him from saving Aunt Ester's house but he is so committed to his Afro-American community that he won't listen even to her.

MAME: Harmond, if you do that you're throwing everything away. All your hard work. Your career. Your reputation.....

HARMOND: You got to have a rule of law. Otherwise, it would be chaos. Nobody wants live in chaos (R.G. 70).

Thus, he declares his loyalty to his race than to his family or business. Personal success as a politician or a business man is so little to him when compared to the success of his race in the race-dominant white social world.

Conclusion

August Wilson, through this play, reiterates that preserving African-American cultural legacy is a solution for the black dilemma. He advocates the blacks to conserve their rich spiritual heritage to lead harmonious lives in the materialistic world of America. Sterling's act of initiating a paint party at Aunt Ester's house on the day of its impending demolition symbolises their protest against the destruction of African-American cultural legacy. Harmond goes to join the party at the end of the play painting his face like a warrior. It emphasizes the need for the blacks to turn warriors if their identity is under threat. Radio Golf, thus, presents the dilemma of the moneyed blacks besides offering them such a worthy solution.

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User Perceptions and Expectations from Academic Libraries in Digital Information Society

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Edited by Prof. K. Padmini, Dr.Nayakanti Maddaiah,
Dr.M.R. Murali Prasad and Dr.C.Mallikarjuna

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User Expectations in Academic Libraries

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***Abstract** - Libraries are mainly meant to supply information needed by its users. It is more so in the technological age in the context of the growing needs of the users. Hence, the administration has to gear up to the increasing functions, both quantitatively and qualitatively. Libraries fall into disuse if managements lack imagination and if they suffer from paucity of funds. This paper proposes to examine the pros and cons of the related aspects like user needs, user expectations and users' satisfaction with regard to library services. At the end, the paper makes certain recommendations with respect to the effective functioning of libraries vis-à-vis users' needs, expectations and their satisfaction.*

Keywords: Libraries, Knowledge Dissemination, Traditional Sources, Electronic Sources, Users Expectations, Users Satisfaction, Library Resources, Library Services.

Introduction

Libraries are the temples of learning. The the users secure information for different purposes like class-room syllabus, research, logical and innovative approaches, personality development, inspiration, recreation, service examinations, entrance examinations and job opportunities. The information required by the users is gathered from different sources like the ancient bhurja patras, modern books and ultra-modern sources like the electronic devices. The central point of all these activities is the user. Hence users' expectations, services and

their satisfaction have assumed enormous importance. The success of a library depends upon the users' satisfaction. The main object of any library is to collect, organize, disseminate information according to the needs of the users. Hence, this paper proposes to examine all these aspects beginning with the definition of a user. At the end, it makes certain suggestions in order to enrich our approach to the study.

Knowledge is disseminated not only for academic purposes and entertainment but also for career oriented studies and research needs. Hence the importance of library is increasing year after year, specially after the introduction of the electronic resources and technology. The satisfaction of users' demand has gained special importance and requires special attention in this regard. This paper proposes to examine the methods of meeting the ever-changing and ever increasing needs of user. It discusses the various media of disseminating knowledge right from ancient times, such as clay tablets, metal inscriptions, palm leaves, printed media and electronic devices.

Definition

It is observed that the centre of the study is the user of a library.

- a. The Oxford Dictionary has defined the word user as "A Person who uses or operates something".
- b. According to the Collins Dictionary "A User is a person or thing that uses something such as a place, facility, product or machine". As per these definitions, the user is a person seeking information in the library from a book or from an electronic gadget.

Users Expectations

The success of any library depends upon satisfying the expectations of the user.

- a. The Oxford Dictionary defines expectation as 'a thing that is expected to happen'.
- b. The Merriam Webster Dictionary defines expectation as 'a feeling or belief about how good something will be'.

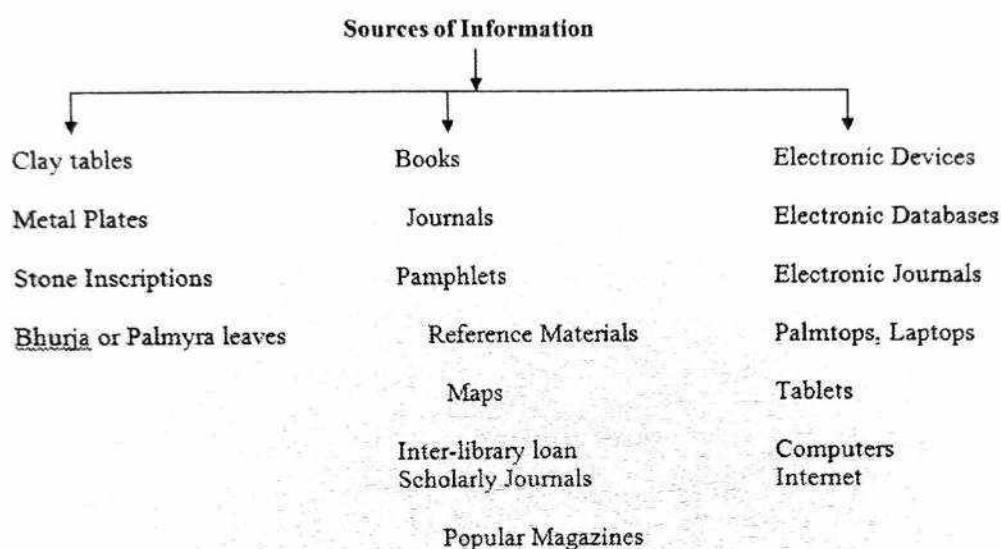
In the case of a library, the expectation is about acquiring information. Here, three important aspects have to be remembered.

1. The information supplied may be at different levels: students, faculty members, researchers and general readers.
2. According to the changing times, the types of volume of information may be changing from time to time, specially in view of the needs of the present technologies age and users requirements.

- Depending upon the technological developments, the media of supplying information may be changing like old polymer leaves and tablets, books and electronic devices like tabs, palmtops, laptops and computers.

Sources of information required by the users

We are living in a technological age. Everything that is connected to human is changing speedily and overnight. The same is true of the media of supplying information. They may be mentioned in a table as below.



User Services

Libraries have to provide information to the users. In addition to the traditional sources of information, libraries have to update themselves and supply information through a variety of techniques and technologies. Libraries have to help the user in locating the particular information or in borrowing library documents. Sufficient accommodation also should be provided to the users for reading a book in the library itself or for taking down notes.

The normal services or facilities provided to the users are as follows:

- Reading materials including the Electronic Resources
- Lighting
- Reprographic Services
- Library Catalogues

- Computers
- Seating arrangement
- Drinking facilities
- Staff to help
- Toilet facilities
- Opening and closing hours of the library
- Current Content Services and
- Newspaper Clippings Services

As Prof. Lancaster has observed, modern libraries have become more and more user-oriented paying special attention to the patterns of library use and the extent to which the needs of the user are met with.

User Satisfaction

It is already observed that the success of a library depends upon the level of the user satisfaction. In fact, libraries are treated as service institutions where they serve the users to fulfill their needs. The information required by the users may be supplied either through the print media or through the electronic media.

Users would be satisfied only if they are provided with all the facilities, reading materials and sitting facilities as observed in the users facilities section of this paper. There is a special function to the library, viz., to serve the needs of the students of the college and to fulfill the mission with which it was founded like teaching, learning and research. As Prof. Kargbo observes, the status of a library is judged by the academic excellence it achieves and by the level of satisfaction expressed by its users. According to Tagore "the greatness of a library lies not in the size of its buildings or in the number of its volumes, but in the use made of its books".

Recommendations

All academic activities including library facilities revolve round the user, specially the student. Hence the following measures have to be taken not only to increase the number of users, but also to enhance the level of their satisfaction.

1. Libraries should purchase all the material required by the users, especially the students of the college where the library is situated.
2. There should be accessibility to the information services to the entire user-world.
3. Satisfactory physical environment should be provided such as sufficient space, furniture, ventilation.
4. Both the library staff and the students should be imparted the necessary skills needed for the operation of electronic sources.
5. There are certain topics which require repeated consultation on the part of the user. Hence, there should be proper and cheap reprographic facilities in the library.
6. Information on literary programmes may be organized.
7. A periodical dialogue with the users goes a long way in making the students satisfied and in meeting their changing and growing demands.
8. Users-surveys may be undertaken in order to cover as many users as possible. Moreover, written answers of the users will not only be expressive but also form dependable written documents.
9. A constant bridge should be constructed between the library, the head of the institution and the management. The synergic effect thus produced will make the entire process smooth, ever-growing and successful.

Conclusion

In a nut-shell, libraries should be user-oriented rather than system-oriented. Unless libraries satisfy the users material-wise and facilities-wise, they may turn away from libraries and seek their information elsewhere. Libraries should ably face the challenges thrown in by the impact of the information technology and growing electronic sources. The services of the library have to meet not only the academic needs of the students but also their future prospects. The information supplied should not only be comprehensive but also speedy and easy to operate. If books are found more popular in a particular region or at a particular point of time, libraries should immediately respond to such needs. In fact, libraries should frame or orient their programmes and activities depending upon the opinions or needs expressed by the users. In short, it is the satisfaction of the users that makes a library useful and successful. Above all, as Prof. Cullen remarks, the role of a dedicated, committed and learned librarian has immense importance in this regard.

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UPEALDIS - 2020

Challenges and Opportunities to Libraries and LIS Professionals in the Changing Global Scenario

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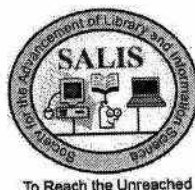
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NEW EDUCATION POLICY 2020: ROLE OF LIBRARIES

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Abstract

According to New Education policy 2020, 'Education is fundamental for achieving full human potential, developing an equitable and just society and promoting national development. Providing universal access to quality education is the key to India's continued ascent and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration and cultural preservation' Education is the basic need of an every individual. It gives awareness of things right or wrong and changes the living standards. Libraries play a crucial role as a support service both in academic and non-academic fields through which books are transformed into information and knowledge for the individual as well as professional development. They are treated as resource centres that can transform data into information leading to knowledge and wisdom. Libraries position themselves as providing access to the world of information resources. New education policy 2020 has stressed the importance of libraries in schools, colleges and all higher education institutions and the libraries are backbone of education and research. Today libraries are dynamic in nature to inculcate the changing needs of user community.

Keywords: New Education Policy, NEP, ICT, Digital India, E-Resource.

Introduction

Education makes man wise enough to consider all people equally. In the educational world, there is no discrimination on the basis of caste, creed, class, gender, colour, religion, language, nationality, race, etc. Education is not merely attending classes and going to school and college. An educated man is empowered to enrich the whole society with his knowledge and wisdom. The gap between the current state of learning outcomes and what is required must be bridged through undertaking major reforms that bring the highest quality, equity, and integrity into the system from early childhood education period till the level of higher education. ICT has brought out significant changes in all walks of life and provided wider opportunities in achieving and accessing knowledge in the digitised form. Publishers and Libraries are also changing their publication and information storage pattern with the help of ICT to fulfil the needs of the information society. Modern Libraries provide services entirely different from the earlier ones. Now-a-days the world of information is available in a small window like smart phone and it reaches every corner of the world.

Objectives

The following are the objectives of libraries in new education policy:

- Librarian should understand the user interests and requirements.
- Librarian serves all about new literature which is available in different formats.
- Librarian should have ability to apply technology.
- Librarian should coordinate with all the teaching community for smooth functioning of the curriculum.
- Librarian should be able to apply technology for effective service.
- Encourage virtual platforms as new types of delivery systems.
- Institutional repositories must be developed.

To fulfil the objectives of the above, libraries need to develop their infrastructure, information storage and delivery pattern for effective and smooth functioning of the library.

Impact of NEP 2020 on Libraries

Information Resource: Libraries are working as an information storage and retrieval centres. There is a vast difference in information storage and retrieval system now-a-days in comparison with the previous situation. Earlier it was in the form of print and changed its pattern to electronic and virtual. The approach of libraries is changing towards electronic resources and services that can be transformed rapidly to the target audience for effective utilization of its resources with the help of Digital India platforms.

Library Becomes an Education Service Centre: NEP emphasizes that the librarian should improve the attitude of service oriented workmanship and collaborates with other teaching faculty to improve the quality of teaching and research. It means that library is a centre of excellence where all-round information is available for further studies and improvement of the knowledge of the scholars and the teachers.

Library-A Learning Hub: Over the years, libraries have been the keepers and distributors of books, journals and other reading materials that are used by students and other members of staff. Library can create an environment that is conducive for the overall development of an individual by character and personality. It can provide not only the reading atmosphere to improve the variety of learning experiences but also bring out the hidden qualities of the individual students and teachers.

Scientific Temper : Libraries can improve the collections that are important for academic, research and professional development of the students. Users can improve their creativity, scientific temper, critical thinking, analysis power and balance of mind, etc. that will support and enhance national growth

Communication Skills: Communication and interpersonal skills play an important role in every walks of life from a peon to a company CEO. The attitude towards improving these skills starts from early stage and build their career accordingly. Libraries too have their own role in honing these skills of the students.

Collaborative Approach: A collaborative work between the teachers and the librarians in continuing learning process, positive working environment and professional development of students by providing enjoyable and inspirational books, high quality teaching and technology application is essential for the all-round development of students' personality.

National Book Promotion Policy: It improves reading habits among school and college students. It will take initiation to ensure the availability, accessibility of reading materials across language and community at large. Learning should be holistic, integrated and enjoyable. Many activities are conducted by state and central governments with the help of other organizations working for education and cultural diversity.

Collection: In the past, collection of books in any library was based on the academic needs of the students and the members of staff. The present collection of the library supports multi-lingual, multi-tasking and multi-disciplinary activities of the whole institution. Currently, the nature of any library and its collection supports to empower the potentiality of new generations improving the interpersonal and the problem solving skills and fulfilling the diverse cultural needs of ancient and

modern India and the world. The approach of users of the library is an evidence based on learning, creativity, innovation, problem solving skill, etc., which, in turn, are the main criteria of selecting material.

Information and Digital Literacy: The prime objective of any individual or institution is to know the unknown things. ICT has influenced all spheres of the society and the library is no exception. Users should know the information resources available in the library and categorise them based on the needs. Here Ranganathan's second and third law will be applicable for the knowledge of information available in the libraries.

Facing New Disciplines: Librarian should provide and answer the new subjects or technology that enable user to have the knowledge of the current status of the new subject like Environmental Science, Water Resource Management, Sustainable Energy Sources, Artificial Intelligence, Big Data Analytics, Data Science, Creative and Innovative Thinking, and many more multidisciplinary subjects evolved in the curriculum.

Institutional Repositories: Institutions of higher learning, research and scientific organizations encourage to organize their in-house materials, innovations, projects, patents, reports, theses, dissertations, etc. to be available for next generations. Libraries must carry and make available its' repositories with high quality specialised content in open educational repositories.

Digital India: Ministry of Human resources Development, Govt. of India has taken concrete steps to form Digital India concept where all type of information, services, and documents available in different platforms. Here providing common services available to citizens make the country digitally empowered in the field of information and communication technology.

In addition to the on-going regular services from the library, librarians initiate for book clubs, book exhibitions, community services, awareness camps, e-resources, apps, reading clubs, etc.

Conclusion

Education, in the contemporary world, is very crucial and important to gain knowledge. Libraries fulfil the gap between teaching and learning. It needs to be aware of technological advances in all sections for smooth and effective functioning of the library services. Libraries play a vital role in discharging their duties as supporting service. The concept of library as a place where one can go for getting information is changing rapidly when everything is available in a single place or platform where users access, communicate and contribute to the existing knowledge.

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A COMPREHENSIVE REVIEW OF LEARNING IN EDUCATIONAL PSYCHOLOGY**P. Venkatesu, J. Subrahmanyam & V. Raja**

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Introduction:

Learning methods of education have been developed rapidly due to advances in technology. Learning is an organized, complex, and goal-directed activity. Learning is not preparation for life, it is life itself. Moreover, learning is placed as a central theme in educational psychology. Hence, in the present article, the authors review the concept and nature of learning, components of learning, and methods of learning with differences, advantages, and disadvantages of the learning methods briefly with different perspectives, keeping in mind the varied concepts of learning proposed by eminent psychologists. This article also discusses the implications of the learning methods in real classroom situations. In addition to that advances in learning methods like programmed learning are also explored. And in conclusion, some of the methods and practices to be followed for the betterment of learning in the education system are suggested.

Educational psychology is the scientific study of the application of the laws and principles of psychology to mold education effectively in which learning plays a vital role. Learning is designed based on motivated learners striving to attain a goal. Of course, the success or failure of individuals to reach a goal depends upon their readiness, opportunities, and the effectiveness of their goal-oriented activities. Learning is also one of the key psychological aspects that can modify human behaviors. And these human behaviors either directly or indirectly are affected by the learning process. Besides, change in human behavior also occurs considerably due to maturation. Though maturation and learning are closely related to each other, there is a bit different. Maturation is the process by which behavior is modified as a consequence of the physical and psychological growth of the individual. Whereas learning is a changing of behavior that occurs as a result of experience. Understanding of learning increases with maturation. Pressey, Robinson, and Horrocks (**Pressey et al., 1959**) represented the components of the learning process in the following manner- Motivated learner > process of goal attainment > goal.

Again, they said that the learning takes place under the following conditions-

- The learner must be motivated because of his unsatisfied needs, wants, and interests.
- A situation whose well off manipulation, the learner perceives, is leading to a state satisfying his motives.

- The learner's motivation should be enough stronger.
- Thus learning depends on so many factors as illustrated in the school learning situation which falls into the following components:
- The learner: - The first component of the school learning situation is the learner as a unique individual.
 - Learning situation: - Every learning situation is different for every learner.
 - The learning process: - This is the interaction that must take place between the learner and learning situation.
 - The teacher: - The teacher is the central figure in the learning process.
 - The curriculum: - It is the organization of the body of knowledge, skills, and attitudes where the pupils are required to learn and develop.

Further, the amount of learning is figured out with learning curves. In general, there are three forms of learning curves identified. They are positively accelerated, negatively accelerated, and sigmoid types. In the positively accelerated curve, the change in increments of learning is small during the early trials and becomes larger as the practice continues. In a negatively accelerated curve, there is a rapid change in the beginning and as trials go on, the improvement becomes smaller and smaller. The sigmoid curve is one that is positively accelerated during the first half and negatively accelerated during the next half of the trials. Usually, we may not get the exact curves. An utmost physiological limit is noticed beyond which there is no development in learning and there are some temporary halts in the process of learning known as plateaus. And these are caused by a lack of motivation, lack of interest, boredom, fatigue, and modifications in the learning techniques. Plateaus are the challenges to the teacher. The teacher should try to avoid the plateaus right from the beginning of teaching a class by motivation through rewards and punishments, by preparing the content related to the needs of the pupils, and by considering the maturity levels of the pupils. Learning curves help the teachers in knowing where the pupils have faced difficulty. This in turn is helpful for the teacher to plan out his teaching strategies.

1. The methods of learning

There are three predominant learning methods namely associative learning, learning by trial and error, and learning by insight.

A. Associative learning or Conditioning

In this learning process, a relationship is formed between a stimulus and a response. For instance, fire (stimulus) is related to avoidance (response). Pavlov (**Pavlov, 2003**) established the conditioning in a hungry dog salivary response to the ringing of the bell. It consists in the attachment of a new response to a stimulus which did not occur earlier. Watson (**Watson, 1919**) also established the conditioning of a small child. And said that reinforcement of learning (immediate reward), introducing repetition in learning (drill and review), and removing

distracting stimuli are some of the implications to the classroom procedure. According to Skinner (**Skinner, 1938**), there are two types of conditioning, viz. Classical conditioning and operant conditioning. Skinner box is the famous one in which Skinner did experiments on animals to differentiate the two above conditions.

- 1) *Classical conditioning*: It is also called respondent conditioning in which the neutral stimulus (reinforcing stimulus) is paired with an unconditioned (natural) stimulus. Here the animal remains passive
- 2) *Operant conditioning*: In this conditioning, the response is instrumental to get reinforcement. Reinforcement is nothing but an instrument that can increase the probability of a given response. Here the animal is more active.

The more clear distinction about the two conditionings is listed in the below Table.1

Table 1. The distinction between the conditionings

Classical conditioning	Operant conditioning
1. It is called Pavlovian conditioning.	1. It is called Skinnerian conditioning.
2. Reinforcement comes first and then the response.	2. Reinforcement is provided only when the response is made.
3. This is stimulus oriented.	3. This is response-oriented.
4. It is an internal behavior.	4. It is an external behavior.
5. The conditioned response is forced by the unconditioned stimulus.	5. Here the voluntary response is exhibited.
6. Here stimulus controls the response.	6. Behavior and response are controlled by their consequences.

B. Trial-and-Error learning

It is like Maze learning – hit or miss process. This method is clearly explained through an experiment by Thorndike on a cat (**Thorndike, 1905**). A hungry cat is placed in a puzzle box. The fish is placed outside the cage. The cat exhibits random behaviors to open the door with some attempts. As the trails go on unnecessary and incorrect responses become less and less and finally, the right adjustments get established.

Based on his experiments he formulated some laws of learning. They are as follows.

- 1) *The law of effect*: According to this law "when a modifiable connection between a stimulus and response has been made, it is strengthened if it results in satisfaction and weakened if it leads to annoyance". School experiences must be pleasant and gratifying. Classroom

activities must be meaningful and they should be so arranged that they are within the power of the pupils to accomplish and finally introducing encouragement to promote efficient learning are some implications to classroom work

2) *The law of exercise:* According to this law "the more frequent a modifiable connection between a situation and response is made, the stronger is that connection". In the classroom situation, review and recitation may aid learning. Repetition combined with interest may lead to efficient learning. For example in the teaching of spelling, pupils must be trained to use them in sentences and composition.

3) *The law of readiness:* This law states that "when a person feels ready to act or learn, he learns more effectively and with greater satisfaction than when he is not ready". This is otherwise called the mindset. In the class, room attempts should be made to develop a readiness to learn. A good assignment that raises curiosity may develop a favorable mindset. Correlating lessons with excursions and encouraging lively discussions, pupils' participation could help to promote readiness mentally.

Learning by insight

According to Kohler "the criteria of insight is the appearance of a complete solution concerning the whole layout of the field". He emphasized that in learning by the insight the solution comes abruptly as a flash. It also comes by the learner perceiving the relationship in the scene, rather than by responding to isolated stimuli. It is illustrated by the experiments conducted by Kohler on Chimpanzees (**Kohler, 1925**). He placed the chimpanzee inside the cage fitted with bars. A bunch of bananas was placed outside. The chimpanzee was supplied with two sticks of a given length and none of them could be useful singly to get the bananas. After a few attempts, it suddenly struck the animal that it is possible to reach the bananas by joining the two sticks. This insight is due to a new organization of the situation. In the words of Koffka (**Koffka, 1935**) "insight is the sudden grasping of the solution which results in a process that runs its course by the nature of the situation."

The educational implications of this learning by insight are- the subject matter and activities must be organized into larger units and in the teaching of subject matter, teachers must try to orient the pupils to the general organization. Insight learning can be developed in pupils by taking them to Museums, Exhibitions, and exposing them to industries and factories. The following Table. 2, shows differences between Trial and Error learning and Insight Learning

Table 2. Differences in Trial – and- Error and Insight Learning

Trial and Error	Insight Learning
1. This is based on experiments by Thorndike.	1. This is based on experiments by Kohler.
2. This is illustrated by blind attempts made by a cat to open the door.	2. This is illustrated on known attempts made by a chimpanzee- Sultan, to solve a problem.
3. Intelligence and experience are not necessary.	3. Intelligence and experience are necessary.
4. Here perception is nothing to do.	4. Here the problem is solved in the perceptive field

Conclusion:

Today learning is accomplished through teaching machines. This comprises the application of learning theory, procedures of laboratory, and modern technological process towards the improvement of teaching in the classroom. It is one of the real breakthroughs in the history of education. One important thing to be noticed in our educational system is to provide for learning in life-like situations. The pupils should get a chance to apply what they learn. Strong motivation is a superb high-way for learning. One should see schooling as a meaningful activity. Otherwise, learning kills most of the lifetime of pupils with no beneficial outputs.

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Introduction:

Learning methods of education have been developed rapidly due to advances in technology. Learning is an organized, complex, and goal-directed activity. Learning is not preparation for life, it is life itself. Moreover, learning is placed as a central theme in educational psychology. Hence, in the present article, the authors review the concept and nature of learning, components of learning, and methods of learning with differences, advantages, and disadvantages of the learning methods briefly with different perspectives, keeping in mind the varied concepts of learning proposed by eminent psychologists. This article also discusses the implications of the learning methods in real classroom situations. In addition to that advances in learning methods like programmed learning are also explored. And in conclusion, some of the methods and practices to be followed for the betterment of learning in the education system are suggested.

Educational psychology is the scientific study of the application of the laws and principles of psychology to mold education effectively in which learning plays a vital role. Learning is designed based on motivated learners striving to attain a goal. Of course, the success or failure of individuals to reach a goal depends upon their readiness, opportunities, and the effectiveness of their goal-oriented activities. Learning is also one of the key psychological aspects that can modify human behaviors. And these human behaviors either directly or indirectly are affected by the learning process. Besides, change in human behavior also occurs considerably due to maturation. Though maturation and learning are closely related to each other, there is a bit different. Maturation is the process by which behavior is modified as a consequence of the physical and psychological growth of the individual. Whereas learning is a changing of behavior that occurs as a result of experience. Understanding of learning increases with maturation. Pressey, Robinson, and Horrocks (**Pressey et al., 1959**) represented the components of the learning process in the following manner- Motivated learner > process of goal attainment > goal.

Again, they said that the learning takes place under the following conditions-

- The learner must be motivated because of his unsatisfied needs, wants, and interests.
- A situation whose well off manipulation, the learner perceives, is leading to a state satisfying his motives.

- The learner's motivation should be enough stronger.
- Thus learning depends on so many factors as illustrated in the school learning situation which falls into the following components:
- The learner: - The first component of the school learning situation is the learner as a unique individual.
 - Learning situation: - Every learning situation is different for every learner.
 - The learning process: - This is the interaction that must take place between the learner and learning situation.
 - The teacher: - The teacher is the central figure in the learning process.
 - The curriculum: - It is the organization of the body of knowledge, skills, and attitudes where the pupils are required to learn and develop.

Further, the amount of learning is figured out with learning curves. In general, there are three forms of learning curves identified. They are positively accelerated, negatively accelerated, and sigmoid types. In the positively accelerated curve, the change in increments of learning is small during the early trials and becomes larger as the practice continues. In a negatively accelerated curve, there is a rapid change in the beginning and as trials go on, the improvement becomes smaller and smaller. The sigmoid curve is one that is positively accelerated during the first half and negatively accelerated during the next half of the trials. Usually, we may not get the exact curves. An utmost physiological limit is noticed beyond which there is no development in learning and there are some temporary halts in the process of learning known as plateaus. And these are caused by a lack of motivation, lack of interest, boredom, fatigue, and modifications in the learning techniques. Plateaus are the challenges to the teacher. The teacher should try to avoid the plateaus right from the beginning of teaching a class by motivation through rewards and punishments, by preparing the content related to the needs of the pupils, and by considering the maturity levels of the pupils. Learning curves help the teachers in knowing where the pupils have faced difficulty. This in turn is helpful for the teacher to plan out his teaching strategies.

1. The methods of learning

There are three predominant learning methods namely associative learning, learning by trial and error, and learning by insight.

A. Associative learning or Conditioning

In this learning process, a relationship is formed between a stimulus and a response. For instance, fire (stimulus) is related to avoidance (response). Pavlov (**Pavlov, 2003**) established the conditioning in a hungry dog salivary response to the ringing of the bell. It consists in the attachment of a new response to a stimulus which did not occur earlier. Watson (**Watson, 1919**) also established the conditioning of a small child. And said that reinforcement of learning (immediate reward), introducing repetition in learning (drill and review), and removing

distracting stimuli are some of the implications to the classroom procedure. According to Skinner (**Skinner, 1938**), there are two types of conditioning, viz. Classical conditioning and operant conditioning. Skinner box is the famous one in which Skinner did experiments on animals to differentiate the two above conditions.

- 1) *Classical conditioning*: It is also called respondent conditioning in which the neutral stimulus (reinforcing stimulus) is paired with an unconditioned (natural) stimulus. Here the animal remains passive
- 2) *Operant conditioning*: In this conditioning, the response is instrumental to get reinforcement. Reinforcement is nothing but an instrument that can increase the probability of a given response. Here the animal is more active.

The more clear distinction about the two conditionings is listed in the below Table.1

Table 1. The distinction between the conditionings

Classical conditioning	Operant conditioning
1. It is called Pavlovian conditioning.	1. It is called Skinnerian conditioning.
2. Reinforcement comes first and then the response.	2. Reinforcement is provided only when the response is made.
3. This is stimulus oriented.	3. This is response-oriented.
4. It is an internal behavior.	4. It is an external behavior.
5. The conditioned response is forced by the unconditioned stimulus.	5. Here the voluntary response is exhibited.
6. Here stimulus controls the response.	6. Behavior and response are controlled by their consequences.

B. Trial-and-Error learning

It is like Maze learning – hit or miss process. This method is clearly explained through an experiment by Thorndike on a cat (**Thorndike, 1905**). A hungry cat is placed in a puzzle box. The fish is placed outside the cage. The cat exhibits random behaviors to open the door with some attempts. As the trails go on unnecessary and incorrect responses become less and less and finally, the right adjustments get established.

Based on his experiments he formulated some laws of learning. They are as follows.

- 1) *The law of effect*: According to this law "when a modifiable connection between a stimulus and response has been made, it is strengthened if it results in satisfaction and weakened if it leads to annoyance". School experiences must be pleasant and gratifying. Classroom

activities must be meaningful and they should be so arranged that they are within the power of the pupils to accomplish and finally introducing encouragement to promote efficient learning are some implications to classroom work

2) *The law of exercise:* According to this law "the more frequent a modifiable connection between a situation and response is made, the stronger is that connection". In the classroom situation, review and recitation may aid learning. Repetition combined with interest may lead to efficient learning. For example in the teaching of spelling, pupils must be trained to use them in sentences and composition.

3) *The law of readiness:* This law states that "when a person feels ready to act or learn, he learns more effectively and with greater satisfaction than when he is not ready". This is otherwise called the mindset. In the class, room attempts should be made to develop a readiness to learn. A good assignment that raises curiosity may develop a favorable mindset. Correlating lessons with excursions and encouraging lively discussions, pupils' participation could help to promote readiness mentally.

Learning by insight

According to Kohler "the criteria of insight is the appearance of a complete solution concerning the whole layout of the field". He emphasized that in learning by the insight the solution comes abruptly as a flash. It also comes by the learner perceiving the relationship in the scene, rather than by responding to isolated stimuli. It is illustrated by the experiments conducted by Kohler on Chimpanzees (**Kohler, 1925**). He placed the chimpanzee inside the cage fitted with bars. A bunch of bananas was placed outside. The chimpanzee was supplied with two sticks of a given length and none of them could be useful singly to get the bananas. After a few attempts, it suddenly struck the animal that it is possible to reach the bananas by joining the two sticks. This insight is due to a new organization of the situation. In the words of Koffka (**Koffka, 1935**) "insight is the sudden grasping of the solution which results in a process that runs its course by the nature of the situation."

The educational implications of this learning by insight are- the subject matter and activities must be organized into larger units and in the teaching of subject matter, teachers must try to orient the pupils to the general organization. Insight learning can be developed in pupils by taking them to Museums, Exhibitions, and exposing them to industries and factories. The following Table. 2, shows differences between Trial and Error learning and Insight Learning

Table 2. Differences in Trial – and- Error and Insight Learning

Trial and Error	Insight Learning
1. This is based on experiments by Thorndike.	1. This is based on experiments by Kohler.
2. This is illustrated by blind attempts made by a cat to open the door.	2. This is illustrated on known attempts made by a chimpanzee- Sultan, to solve a problem.
3. Intelligence and experience are not necessary.	3. Intelligence and experience are necessary.
4. Here perception is nothing to do.	4. Here the problem is solved in the perceptive field

Conclusion:

Today learning is accomplished through teaching machines. This comprises the application of learning theory, procedures of laboratory, and modern technological process towards the improvement of teaching in the classroom. It is one of the real breakthroughs in the history of education. One important thing to be noticed in our educational system is to provide for learning in life-like situations. The pupils should get a chance to apply what they learn. Strong motivation is a superb high-way for learning. One should see schooling as a meaningful activity. Otherwise, learning kills most of the lifetime of pupils with no beneficial outputs.

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Physical education Satisfaction enjoyment and boredom in autonomy support and academic performance

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ABSTRACT

The study is to analyze the effect of physical education satisfaction enjoyment and boredom in autonomy support and academic performance. The analysis will have questionnaire for autonomy support in physical education, sport satisfaction intrinsic in physical education and the physical education performance of the students. The validity tests were analyzed using confirmatory procedures. Descriptive, reliability, and validity analyses were carried out for each instrument, and the mediating effect was examined.

1. INTRODUCTION

Children and youth receive numerous physical health benefits from physical activity (PA), including improved fitness, cardiovascular function, metabolic function, and bone health. Despite these health benefits, many children continually fail to meet PA recommendations. The primary goal of schools is student academic achievement; the key to increasing PA in schools would be to show that PA improves academics. As administrators have increased

the focus on academic achievement since then, schools increasingly have eliminated PA opportunities. In response, public health researchers have searched for the “holy grail” of PA in schools: a positive connection between PA and academic achievement. If scientific evidence verifies and supports a positive connection between PA and academics, administrators may be more likely to increase PA opportunities during the school day.

Researchers have been studying PA and academic achievement for over half a century. Now, many researchers contend that sufficient evidence exists to institute school PA policies that will improve (or at least not detract from) academic achievement. If this conclusion is promoted before definitive data are available, however, negative consequences may result. If researchers promote PA as a way to improve academics, and administrators later fail to see this association, promotion of PA in schools could fall several steps backwards.

2. ANALYSIS

Physical Activity satisfaction/enjoy may be examined according to the Theory of Subjective Well-Being. This theory is composed of two dimensions: on the one hand, a person's general satisfaction with life; and on the other hand, the affective dimension, understood as the result of immediate and continuous response to the conditions surrounding the students. In this way, satisfaction with school is interpreted as a cognitive-affective assessment of the general satisfaction experienced by the student. It has been proven recently that levels of satisfaction with physical education (PE) forecast satisfaction with school, which is linked in turn to the academic performance of secondary school students. But what strategies can the PE teacher apply to increase the levels of satisfaction with PE?

- One way for the teacher to increase levels of satisfaction with PE is by supporting the autonomy of their students. Autonomy support—together with competence and relationship—is one of the dimensions that form the Theory of Basic Psychological Needs, variables that have been studied extensively. Autonomy refers to the level of independence and control that an individual has over their own choices; competence is defined as a person's capability to perform a certain task; and relationship means the connection that an individual has with other persons.

- Autonomy, understood as a psychological disposition before a certain task, is vital in the educational environment, and especially in the field of PE, as it is linked to individual competences that are reinforced through teamwork. Instructions or orders for practical tasks from the teacher to the student encourage their autonomy and improve their concentration. Moreover, as explained in Ntoumanis' research, the fulfillment of autonomy increases academic commitment, favors motivation, and prevents task abandonment and dropout rates in general. The fulfillment of basic psychological needs, improved self-determined motivation, greater perceived control, a positive mindset and the intention to engage in physical activity.
- Autonomy brings a perception of competence, capacity, and control over an individual's own decisions, which implies accepting the consequences of their behavior. Such perceptions of freedom and competence enable the student to face more complex challenges, generating more in-depth learning.

It is critical that students enjoy and feel satisfied with the PE class due to its connection to autonomy support, academic performance, and physical activity levels, which in turn relate to better academic performance. On the contrary, when a student feels unsatisfied/boredom with PE class, their levels of physical activity

decline, and their levels of school boredom and potential school abandonment increase, among other variables.

Method:

To measure intrinsic satisfaction (enjoyment and boredom) in PE, we used the Sport Satisfaction Intrinsic in Physical Education (SSI-EF) instrument adapted to the Mexican context by Baños et al..The instrument is composed of eight items; five of them measure the level of satisfaction/enjoyment with academic activities for each subject, while the remaining three measure boredom. The scale is preceded by the phrase: "Tell us how much you agree or disagree with physical education". Answers were given using a Likert scale ranging from 1 (completely disagree) to 5 (strongly agree).

Academic performance in PE. We asked teachers to provide their latest test score records in order to analyze the students' grades. This procedure guarantees a better reliability than the one used by Baños et al., where grades were requested from the students themselves. These were recorded in a scale of polychromatic items ranging from 1 to 10.

A research project called "Programme for International Student Assessment: relationship between school performance in secondary school students and psychological, family, and physical activity variables" was first presented. Then, authorization was requested from school principals, providing the parents/guardians

involved with information for consent detailing the purpose and intentionality of the study. Following their approval, the data collection procedure began by informing the participants of the study's purpose, that participation was anonymous and voluntary, and that their answers were to remain confidential, reminding them that there were no right or wrong answers, and asking them to answer with complete honesty.

Initially, an analysis for multivariate normality was performed. Once normality was determined, or not, a confirmatory factorial analysis (CFA) was carried out to assess the proper adequacy of these instruments in regard to the samples used in this research. Several reliability and validity indices were calculated for each instrument, including Cronbach's alpha, composite reliability, and average variance extracted (AVE). Then, analyses were carried out to determine the correlation among the instruments used. Subsequently, several structural equation models were created in order to meet the purpose of this study.

To determine whether the correlation between autonomy support and PE grades was mediated by enjoyment and boredom during class. Confidence intervals (95%) were generated using a bootstrap of 10000 samples to determine the outcomes of the model. Likewise, we calculated the indirect effects of autonomy support (X) and PE grades (Y) through enjoyment (M1) and boredom (M2).

3. CONCLUSION

It is worth mentioning that several researchers have demonstrated that students who engage in moderate and vigorous physical activity achieve better academic performance in mathematics and reading comprehension. Nonetheless, although other studies have not found any significant correlations among these variables, physical activity levels did not negatively affect academic performance. An explanation for this discrepancy in the scientific literature might lie on the scarcity of studies analyzing the mediating effect of autonomy support and satisfaction with PE between levels of physical activity and academic performance. Therefore, it would be interesting to see future researchers elaborate further on this field.

Conclusion, the results of this study have shown that autonomy support does not directly predict PE performance, but rather that it is necessary that student's feel satisfied with PE for there to be a positive forecast of the student's academic performance. In this way, satisfaction with PE has a mediating effect between autonomy support and academic performance. However, boredom with PE did not have a mediating effect between autonomy support and the student's academic performance.

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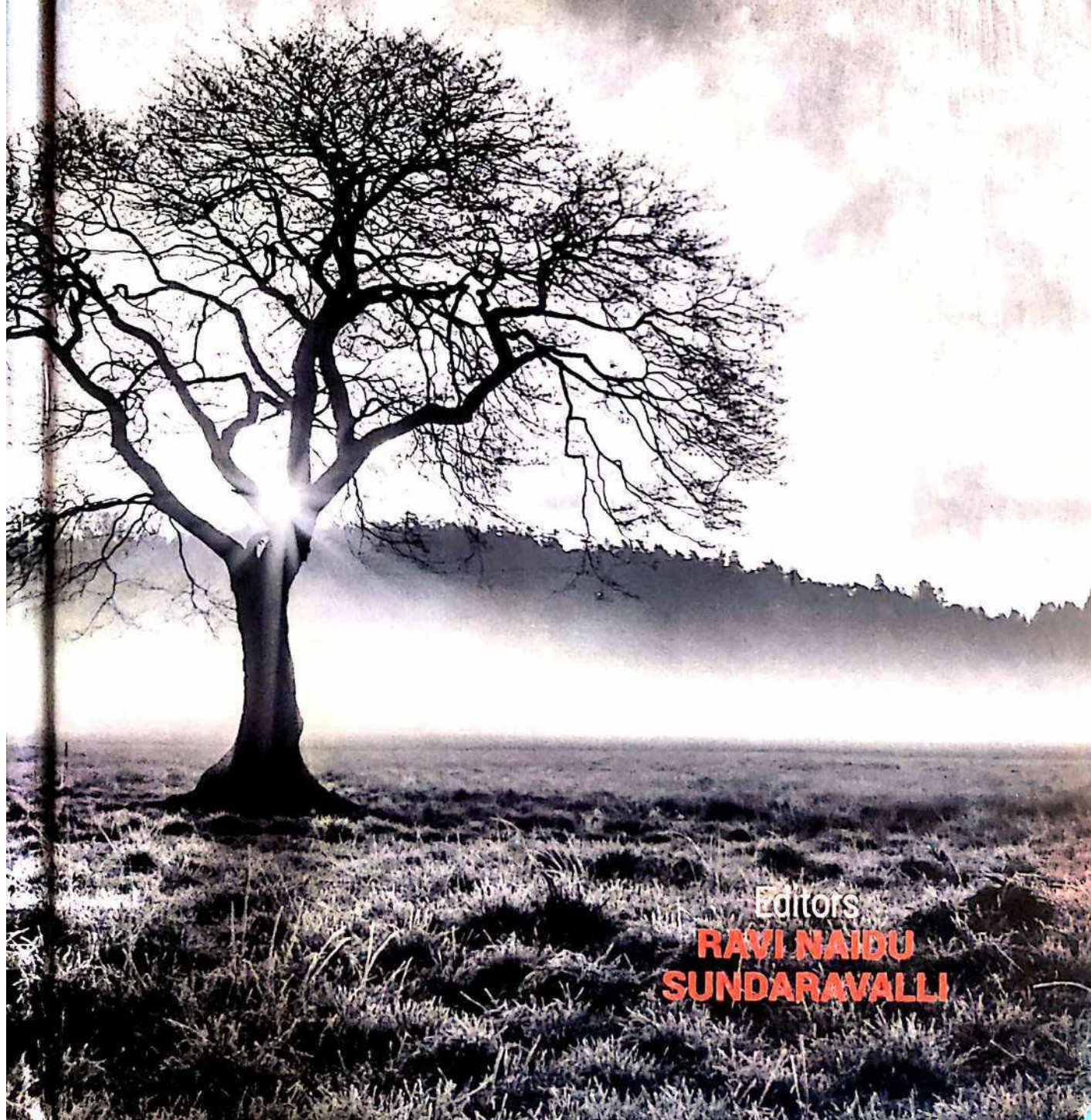
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SUNDARAVALLI

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Theme of Alienation in *The Pittsburgh Cycle*

* *Rajasekhar*

This paper aims at bringing forth the theme of Alienation in the *Pittsburgh cycle* of plays written by one of the most popular 20th century American dramatists, August Wilson. The cycle consists of ten plays each depicting a decade of the African American experience of the whole twentieth century. August Wilson, being a realist, presents the theme of Alienation or isolation of the blacks living in the Pittsburgh region.

Alienation is the common theme in American literature as it elicits many deep emotions. Alienated characters create a sense of intrigue with the personal reliance that they are confronted with. Here in the plays of Wilson racism plays a dominant role that led the black Americans to the sense of solitude or loss of self identity. Particularly the plays like *Fences* and *Ma Rainey's Black Bottom* expose this theme.

This paper mainly focuses on how the central characters suffered the sense of Alienation.

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Introduction:

August Wilson, a significant voice of the 20th century American theatre, produced 16 plays altogether. However, the ten-play cycle - *The Pittsburgh Cycle or Century Cycle* brought him to limelight. The cycle depicted the story of Black American experience in the 20th Century, decade by decade. Wilson explains, "I'm taking each decade and looking at one of the most important questions that blacks confronted in the decade and writing a play about it. Put them all together and you have a history" (Interview with the Paris Review). Critics applauded Wilson's treatment of his subject matter as "A first-hand history of black people in the twentieth Century America" (Hartig Mary P25). Racism, undoubtedly, is the predominant theme of the plays in the cycle and it's crystal-clear even to the superficial readers. However, upon peeping deep into the motifs, we can identify some of the other themes like (a) Raising consciousness through theatre (b) Echoing poetry in everyday language of Black America (c) Alienation or search for self identity. (d) Freedom vs. protection (e) Civil Rights etc. So, in this paper I focus on presenting the theme of alienation in a vivid manner.

Childhood influences:

Wilson's childhood experiences of alienation must have influenced him a lot to present it in his plays. He was born to a German father and African mother. His father was mostly absent from his childhood. His mother divorced his father and married a Whiteman and the family moved to the Hill district where white-working class was living. He encountered serious racial hostility and thus forced out of their house. He was also expelled from school being accused of plagiarism. Having done various odd jobs to earn his living, Wilson decided to become a writer but this created tension with his mother who forced him to become a lawyer. She forced

him to leave the family when he opposed her. Thus Wilson experienced the sense of isolation in his own life and it's evident in his plays too.

Fences - Alienation of Troy Maxson

Published in 1985, the play is an extended metaphor of life. It depicts the disintegrating relationships between Troy and Cory, his son; Troy and Rose, his wife. Though they live in the same house, they are isolated by their ideology. Much of the tension in the family arises due to Troy Maxson and his attitude towards society. He doesn't accept change. "His refusal to accept the fact that social conditions are changing for the black man" (Perenia, 37). This inability to change affects his relationship with his son Cory, who is a promising athlete. Troy doesn't allow his son to pursue his athletic dreams because he was deprived a baseball career as he was black. Therefore, he believes his son might also be prevented from playing the leagues. Troy's fears of past carry into the new generation. This is evident when he says, "I decided seventeen years ago that boy wasn't getting involved in no sports. Not after what they did to me in sports" (Wilson, 39). The title of the play *Fences* is itself a metaphor of Alienation which shows Troy builds fences between himself and the rest of the world. "By drawing a strict boundary around himself regarding familial relations" (Wilson 42).

Ma Rainey's Black Bottom : Levee's Search for Self Identify.

Published in 1984, the play comments exploitations of black artistry during 1920s. The play takes place over the course of one day in a Chicago recording studio in which the protagonist Ma Rainey and her band are laying tracks for a new album. Levee, one of her band members, feels alienated and searches for his own identity. Levee is innovative and feels he's talented enough to compose an album himself and thus attains a promise from the studio owner but Ma

Rainey fires him and the studio owner. This makes LEEVE lose interest in music itself and in anger and frustration stabs and kills his bandmate Toledo for a mere stepping on his shoes. Here, LEEVE's dreams of fame and self identity are suppressed by the older and wiser band mates who feel African American's fame can never equal the whites in the society. Thus, LEEVE feels himself isolated in his own community of music players.

The Piano Lesson: Berniece's Sense of Alienation

The 1990 published play deals mainly with the tension between the siblings Boy Willie and Berniece regarding selling of the family's ancestral piano. Boy Willie wants to sell the piano at any cost to buy a piece of land but Berniece feels isolated with it. Her husband died three years ago. Though she lives with her uncle and her daughter Maretha, she feels alienated and she is of the opinion that "men are only good for messes of things and leaving women to clean up after them" (Berniece, 34). She refuses any change in her life, rejects to marry Avery or to sell or even play the piano. Another character Wining Boy also suffers the sense of alienation. His words, "Now, who am I? Am I me? or am I the piano player?" (Wining Boy, 42), summarize his sense of lost identity or self search.

Joe Turner's Come and Gone: A Quest for Identity

The play, named after a song of the Blues, is a metaphor for the entire slavery experience and the general African search for identity after the American Civil War. Joe Turner is not a character in the play but he is a symbol of Black Americans' quest for identity. He's the master who enslaved Herald Loomis, the protagonist. When Loomis is released from slavery, he has lost everything he holds dear: his wife-Martha has left and his daughter has left as well. This makes him alienated and goes in search of his identity. Alongside Loomis, certain other characters like Jeremy (who looks for a

woman to spend with), Mattie (who awaits her man, Jack Carper's return) and Bynum also represents the theme of solitude or alienation.

Seven Guitars; Broken dreams of Floyd Barton

The 1995 play focuses on seven African- American characters in the year 1948. Floyd, one of the major characters dreams of musical success in Chicago. But his plight in reaching his dream is like one step forward, two steps back. Ruby says to him that everyone has some kind of dream and realizing it leads to self identity. But Floyd fails to do so and feels himself alienated. The play revolves round his fight for his own humanity, self acceptance in the face of his own and societal ills. Floyd aspires to correct his past wrongs and return to Chicago with a new enlightenment of what is more important in one's own life. Unfortunately, his ways of righting his wrongs are inherently flawed and he ends up a failure.

Radio Golf: Riding off –into the Sunset

The last play of the cycle, set during 1997, is a direct confrontation of the past and present of the African Americans. The play poses a straight forward question to the audience i.e. what it means to be an African American? The playwright eventually asks whether it is possible for black culture and heritage to be preserved when it is integrated into mainstream white society. Will there be an end to this racial segregation? Harmond Wilks the protagonist, although being a black, finds himself on the verge of being elected as the major of the town Pittsburgh. However, his self identity is shaken when people around him question about his morals and ideals. Finally, he realizes what the price of his success going to be. Wilks understands that his vision of gifting the future generations might actually hurt the history of the Hill district. So, he quits his visions and lives in present reality.

Two Trains Running; Psychological Alienation

The seventh play of the Pittsburgh cycle, first premiered in 1990, *Two Trains Running* explores the psychological and social manifestations of the black Americans. The play highlights the uncertain future promised by the Civil Rights Movement of the 1960's. Risa, the cook at Memphis Lee's restaurant which is the setting of the play, scars her legs with a razor and isolates herself from men who are interested in her. Sterling, the recently released prisoner feels alienated for he's unemployed. Hambone, the mentally retarded is anyhow detached from his people. The blacks in the play work hard for their white masters but when it is time for them to receive their wages they are humiliated by the whites who deny them their money and call them lazy.

Gem of the Ocean : A Spiritual Turmoil

The first instrument in the series, *Gem of the Ocean* is set during 1904. The play presents the spiritual alienation of (1) Solly Two Kings, a born slave who later scouted for the Union Army and (2) Citizen Barlow, a young man from Alabama who comes in search of a new life and in search of redemption. The farmer becomes a conductor at the Underground Railroad. He also gathers up dog excrement to make his livelihood. He calls it "pure for manure". Though his original name is Alfred Jackson, he calls himself "Two Kings" referring to King David and King Solomon. Aunt Ester Tyler, a 285 year superhuman, acts as "soul-cleanser" of the above two characters who suffer spiritual alienation.

King Hedley II; A Quest for Redemption

The ninth play of the cycle *King Hedley II* is set in 1985. It presents the story of Hedley an ex-convict who was alienated for his crime, imprisoned for stealing refrigerator. He, after being released,

realizes the value of making a family life. He badly wants to start a family. Therefore, he tries to sell the stolen refrigerators so that he can establish a video store. The play also comments critically on the supply-side economics theories of 1980's. Thus, the play explores 'what happens when black men feel worthless and black women feel forgotten.

Conclusion:

August Wilson stands alongside giants such as Arthur Miller and Tennessee Williams and joins the ranks of such ground-breaking African-American writers like James Baldwin and Toni Morrison in depicting the social ethos and milieu of his age realistically. Wilson said, "my plays are ultimately about love, honor, duty, betrayal", in an interview in 1996. The theme of alienation or solitude is presented in some way or the other in all ten plays of the Pittsburgh cycle. It may not strike the superficial observers because the central theme is African-American experience and the struggles of the black Americans. However, August Wilson presents the theme in an underlying sense and those who probe deep into the cycle can identify it.

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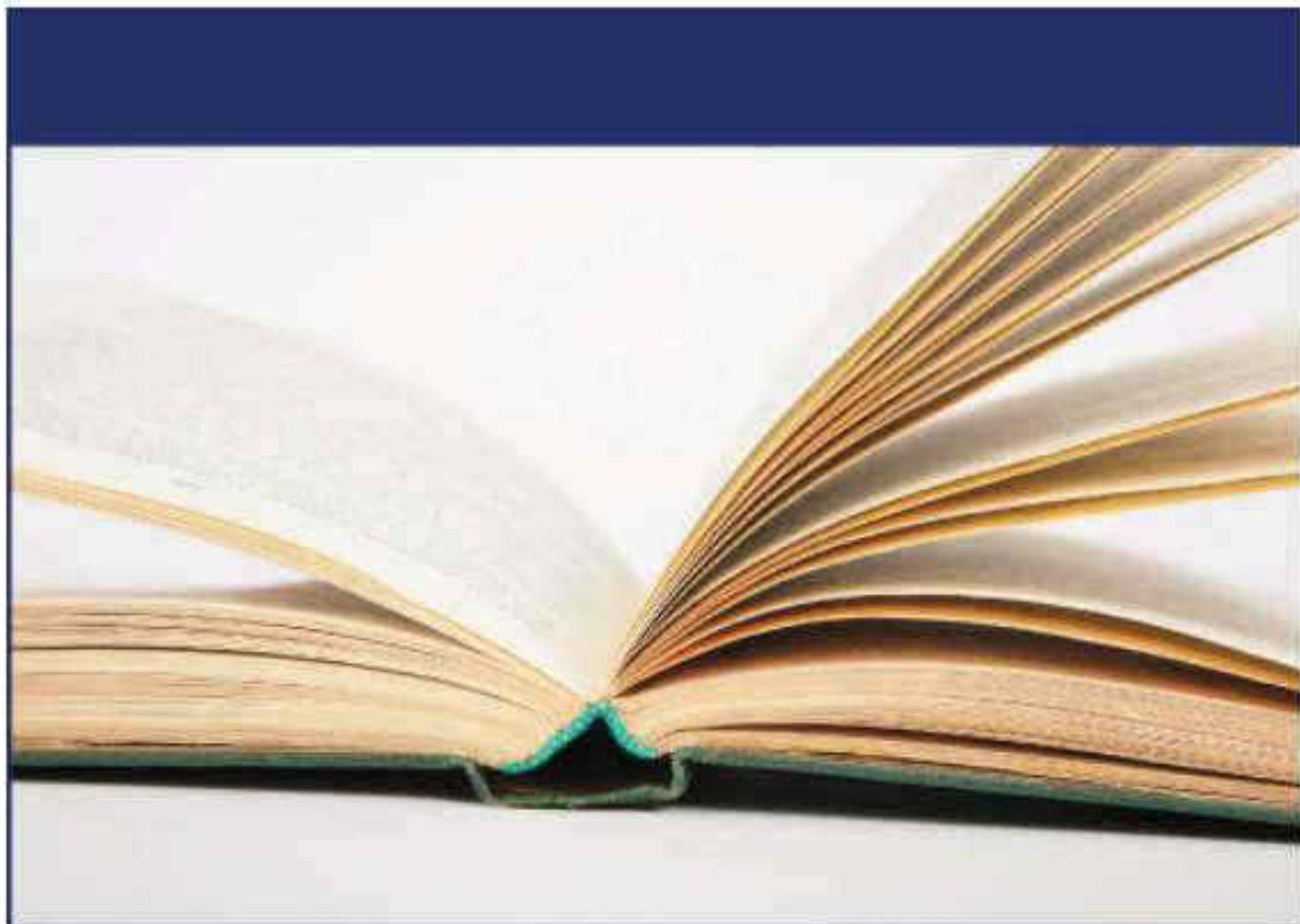


In this work, the problem of data security in cloud data storage is investigated. For this purpose, an effective and hybrid distributed scheme, namely, Parallel Genetic based Secure Data Storage Model (PGSDSM) is proposed. The optimal computing nodes are selected and keys are generated in a heterogeneous cloud environment by using Parallel Genetic Algorithm (PGA). Hence, the crossover, mutation and selection operators are used to calculate the best fitness value. The distributed function evaluation is one of the successful applications of PGA. The parallelization of fitness evaluation is done by assigning a fraction of the population to each of the computing nodes. PGA is not only the extension of traditional Genetic Algorithm (GA), it represents a new class of algorithms and searches the space of solutions differently. In many cases, PGA provides better performance than the single population based algorithms and it reduces the time and number of function evaluations to locate a solution. Advanced Encryption Standard (AES) algorithm is employed to perform the encryption and decryption processes.



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