Editorial Board

IJMER, Journal of Multidisciplinary Educational Research, concentrates on critical and creative research in multidisciplinary traditions. This journal seeks to promote original research and cultivate a fruitful dialogue between old and new thought.

C O N T E N T S

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Editorial……….

I am very happy to learn that with the help and support of one and all the 3rd Issue of Volume - I has served its designated purpose. The close interaction of the intellectuals from the information of these articles serves as a powerful forum.

IJMER's aims and views continue to focus on the multidisciplinary aspects and the impact it makes should benefit scholars, academicians and executives with relevance to the contemporary era.

My personal thanks to the brilliant and respected persons who gave their valuable time for the reviews of the submitted papers.

I am particularly grateful to the Editorial Board for their suggestions and guidance. My heartfelt thanks once again to all the authors of the articles.

We will sustain the effort and in course of time IJMER will sufficiently attract the attention of a wider section. May the blessings of the Almighty be showered on all engaged in this genuine purpose? Knowledge dissemination is the intent and this is acknowledged by the enormous response IJMER received thus far.

(Dr.VictorBabuKoppula)

EDUCATING LINEAR ALGEBRA: ISSUES AND RESOURCES

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Abstract:

The articles in this gathering examine both the substance of direct variable based math courses and ways to deal with instructing such courses. The creators address basic points, for example, line decrease, and more propelled subjects, for example, scanty lattices, iterative strategies and pseudo-inverses.

Keywords: Algebra, Issues, Resources

Lately there has been much energetic level headed discussion and inventive examination about enhancing the educating of straight variable based math. A unique of this article[1] and a sep-arately issued collection [2] layout improvements, and present an assortment of perspectives and issues identified with instructing direct variable based math, alongside rich bibliographic assets for extra study. The assets contain material on objectives of guideline, material to cover, strategies for direction, instructional innovation, levels of deliberation and thoroughness, applications, understudy assorted qualities, associations with different courses, and that's only the tip of the iceberg.

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[1]Angela C. Hare, Mathwright Author and Player (Software Review).*College Mathematics Journal,* 28:2 (1997)130–134.
[2]EdDubinsky.SomeThoughtsonaFirstCourseinLinearAlgebraattheCollegeLevel. Pages75–113

In the late spring of 1998, these matters were the center of the Undergraduate Faculty Program (UFP) at the three weeks Park City Mathematics Institute (PCMI). (PCMI a null unites a wide range of science analysts, instructors, and stu-marks in a gathering of facilitated projects composed around a focal topic. PCMI is a strange and surprising organization, and not adequately surely understood. It gives chances to association between fragments of the science group which depend vigorously on each other yet infrequently convey top to bottom. The motivation behind this article is to make accessible to a more extensive gathering of people a portion of the materials delivered by the PCMI-UFP members and assets we discovered valuable. We will likewise talk about a portion of the encounters we had and bits of knowledge we picked up there which we discovered most new and intriguing.

PCMI-UFP Reports

Thirteen staff took an interest in the 1998 PCMI-UFP, adding to itemized re-ports on a few unique parts of showing straight variable based math. We will start by giving brief portrayals of these reports, which are accessible at the PCMI-UFP site http://pcmi.knox.edu/.

Educating Linear Algebra: What Are the Questions? This paper (signified TLAQ for future reference) covers a wide scope of inquiries regarding the educating of straight variable based math, underlining issues that were talked about at the PCMI-UFP program.

Report on Technology. This report offers a few assets for direct variable based math educators inspired by conceivable employments of innovation. The primary segment is a general review of the potential advantages and pitfalls of innovation in educating science. That is trailed by an accumulation of a few class ventures delineating employments of technol-ogy that have been discovered compelling by the members, and a little rundown of references to extra innovation

assets. A different segment gives directions on the best way to utilize a few innovation items, with a correlation of three programming bundles and two diagramming adding machines.

Educational programs and Pedagogy Report. This reports on a showing techniques and learning speculations class, based on a progression of readings. The UFP workshop individuals were joined at different times by recognized guests to PCMI, and by gatherings of science training scientists and auxiliary educators taking an interest in other PCMI programs. Exchange subjects included course content, enunciation with optional science, successful techniques for direction and appraisal, comprehend ing how understudies learn, and approaches to evaluate significant learning.

Course reading Reviews. The PCMI members had a few exchanges about various models for direct polynomial math courses, and looked in point of interest at reading material utilizing an assortment of methodologies. The report has surveys of six course readings.

Bits of knowledge and Resources

A large number of the points considered amid the PCMI-UFP would be natural to perusers taking after the writing on direct variable based math guideline. Be that as it may, in a few regions we experienced less recognizable points or assets that we feel merit thought. These will be displayed quickly in the accompanying segments. More created talks of these points can be found in reports at the PCMI-UFP site said above.

Educational programs Issues. An essential beginning stage for an exchange of themes to incorporate into a straight variable based math course is the 1990 main subjects of the Linear Algebra Curricu-lum Study Group[3]. Different references that make proposals with respect to

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[3]Elias Y. Deeba and Ananda D. Gunawardena.*Interactive Linear Algebra WithMaple V.* Springer-Verlag, 1998.

substance are[4]. An article by Axler[5] contends for the avoidance of determinants from straight variable based math, and presents an exquisite numerical improvement of eigenvalues and eigen-vectors that makes no utilization of determinants. A related article by McWorter and Mey-ers[6]gives straightforward calculations to hand calculation of eigenvalues and eigen-vectors, again without determinants. These articles are intriguing if simply because the perspectives they take are so atypical.[7]

The Linear Algebra Study Group educational modules proposals, and most current reading material, underline the utilizations of straight variable based math as an inspiration for study. An alternate methodology is to regard direct polynomial math as a bringing together system for comprehension numerical structure. Such a methodology is being produced by Barker and Howe[8], with regards to nonstop symmetry bunches. Lie hypothesis is another setting in which direct variable based math finds a characteristic home. A diagram of Lie hypothesis, and its associations with undergrad themes, is given by Howe's paper [9].

[4]GuershonHarel. Two Dual Assertions: The First on Learning and The Second on Teaching (or ViceVersa). *American Mathematical Monthly,* 105:6 (1998) 386–407

[5]DavidCarlson.TeachingLinearAlgebra:MusttheFogAlwaysRollIn?*CollegeMathe maticsJournal*,24:1 (1993)28–30

[6]John R. Wicks. *Linear Algebra: An Interactive Laboratory Approach With Mathematica,*addison-Wesley, 1996.

[7]William A. McWorter, Jr. and Leroy F. Meyers.Computing eigenvalues and eigenvectors without determi- nants.*MathematicsMagazine,*71:1(1998)14–23

[8]David Carlson, Charles R. Johnson, David C. Lay, A. Duane Porter. The Linear Algebra Curriculum Study GroupRecommendations fortheFirstCour seinLinearAlgebra.*CollegeMathematicsJournal*,24:1(1993) 21–26

[9]DavidC.Lay.*LinearAlgebraandItsApplications.*Addison-Wesley,1997

Associations with Secondary Mathematics.Harel[10] has brought up that while secondary school educational module give quite a while of arrangement to the thoughts of calcu-lus, ideas of straight variable based math get little say. He proposes presenting understudies to some straight variable based math techniques and ideas at the optional level, as an establishment for the deliberation and accuracy of school direct polynomial math courses.

Incited by talks with Harel, we got to be occupied with the explanation be-tween school and optional arithmetic. From optional instructors present at PCMI, we discovered that numerous secondary school educational program as of now incorporate various points from direct polynomial math, for example, framework representation of straight frameworks and network operations, yet they are frequently secured quickly, if by any stretch of the imagination. The instructors clarified that the degree and accentuation of optional arithmetic is emphatically molded by the propelled position (AP) examinations in analytics. For capable secondary school understudies, finishing analytics has turned into the focal core interest. For whatever length of time that subjects from geometry and direct polynomial math don't show up on the AP examinations, guardians and chairmen will have little sensitivity for investing much energy in them. The auxiliary educators additionally called attention to that among every one of the understudies selected in cutting edge optional arithmetic courses, few will even-tually take a school straight polynomial math course, so it is hard to legitimize including much direct variable based math foundation material. Be that as it may, numerous understudies will examine elements of sev-eral variables in math, so there is more purpose behind bringing back the investigation of three dimensional geometry in secondary school.

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[10]David Hestenes, Malcolm Wells and Gregg Swackhamer. Force Concept Inventory. *Physics Teacher* 30 (1992)131–141

Our dialogs with the optional educators persuaded us that school arithmetic staff ought to be more educated and worried about the educational modules of the auxiliary schools. One great beginning stage is the Third International Mathematics and Science Study (TIMMS). Data about TIMSS can be found at http://nces.ed.gov/TIMSS. See likewise[11].

Research on How Students Learn. Of the greater part of the subjects we learned at PCMI, the issue of seeing how understudies learn was the one that had the best effect on us, abandoning us suspicious that anybody truly comprehends what numerical ideas understudies know or how they learned them. Give us a chance to qualify that. We trust that it is conceivable to tell if understudies have aced a particular point at a particular time. In any case, we question in the event that anybody has an unmistakable comprehension of how understudies achieve that, of the middle of the road phases of comprehension they may go through along the path, of what their instructors did or did not do that helped or obstructed that learning, or of what comprehension they will hold. From the exams we give in our own direct polynomial math courses, we realize that numerous understudies don't ace specific points and have genuine mistaken assumptions about numerous ideas. It ought to plainly intrigue any direct variable based math instructor to find why understudies locate this material troublesome, and how to help them generally successfully.

There is not a lot of distributed writing on how understudies learn direct polynomial math, in spite of the fact that Harel[12] has been concentrate a few parts of this for quite a while. His papers give a few recommendations to straight variable based math instructors. Carlson

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[11]RogerHowe.VeryBasicLieTheory.*AmericanMathematicalMonthly*,90:9(1983)601–613

[12]Douglas Huffman and Patricia Heller. What Does the Force Concept Inventory Actually Measure? *Physics Teacher* 33 (1995)128–133

[4] presents an intriguing theory about the uncommon troubles that direct variable based math presents for understudies, and Dubinsky [9] offers another perspective.

Research with Young Children. There has been significantly more research on how youthful kids learn science. Despite the fact that this examination is not specifically relevant to the straight variable based math classroom, it gives suggestive insights. We found out about a portion of the work here at PCMI, both in casual discourses with the arithmetic training analysts, and in addresses introduced to the whole PCMI gathering.

One such presentation was made by Michael Battista[13]. He started with a shot meeting of a young lady, maybe seven years of age. She was demonstrated a chart something like Figure 1 and requested that foresee what number of square tiles would be expected to cover the rectangle.

Tiling Exercise

In answer, she tallied around the border of the chart, and afterward added a couple of more tiles to fill in the inside. Unmistakably she didn't have a mental picture of a rectangular cluster with a specific number of tiles in every line, and in every section. When she was given physical tiles, she effectively secured the graph and tallied out the twelve required tiles. At that point the tiles were secured, and the youngster was again asked the first question. She returned to the border system, and when she came to appraise the quantity of missing tiles from the focal point of the exhibit, she was not any more ready to accurately imagine the tiles than she had been toward the begin.

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[13]David Carlson, Charles R. Johnson, David C. Lay, A. Duane Porter, Ann Watkins, William Watkins, Eds. *Resources for Teaching Linear Algebra* MAA Notes Volume 42. Mathematical Association of America, 1997

That presentation left us with two conclusions. Initially, we understood that something as concrete as the association of an arrangement of tiles into an exhibit is truth be told a dynamic construction. To ace this idea a tyke needs a specific mental development and also hone and rehashed introduction. It was not evident or common for the youngster to conceptualize the game plan of tiles as an exhibit, even after she constructed the cluster herself out of physical tiles. Second, we saw that there is something else entirely to learning arithmetic than we now and again envision. It is innocent to believe that showing comprises of indicating understudies unmistakably what you need them to know. Such a perspective overlooks the psychological improvement that can be nec-essary notwithstanding for so basic a thought as masterminding tiles into rectangular clusters. In spite of the fact that the young lady in Battista's concentrate really saw with her own eyes how to orchestrate genuine tiles in an exhibit, that did not make cluster courses of action regular or clear to her. It is difficult to envision that enlightening her concerning clusters would have delivered essentially distinctive results.

What does this let us know about educating direct polynomial math? At this point, most instructors have heard the statement that understudies need to develop their own insight with a specific end goal to learn, however we are not certain how to help understudies in doing this. It appears to be clear that basically demonstrating what is valid and advising understudies what we wish them to know is not for the most part adequate. A few investigations of analytics have demonstrated that understudies don't gen-erally have a rich applied comprehension of charts and capacities. These understudies are over and over demonstrated how charts and capacities are connected, yet like the young lady in Bat-tista's study, they don't discover the ideas evident or common. We in the PCMI-UFP concurred that linearity and freedom are likewise ideas with which most understudies battle, and it

appears to be clear that basically making a superior showing with regards to of telling and demonstrating may not altogether enhance their learning of such troublesome subjects.

What would we be able to do to empower understudies' learning? We asked the arithmetic instruction specialists at PCMI for exhortation. The pith of their reactions was that we ought to end up better audience members. Our talks with understudies ought to be pointed at remedying misinterpretations, as well as at understanding what the misguided judgments are and how they create, also. To do this in a composed manner, you may request a couple volunteers willing to take part in meetings all through a course. The purpose of the in-terviews is to acquire an itemized seeing how understudies consider direct variable based math. After some time, meetings may uncover some broad examples in the reasoning and misconcep-tions of our understudies that lead us to a superior comprehension of how they learn, albeit any such bits of knowledge may well take quite a long while to develop. However, in the short term, watchful perception of understudies has esteem as an end in itself, in helping them see their mis-originations, and helping us to recollect that the reflections of straight variable based math are not insignificant and do require time and push to get.

Thoughts from Physics Education. Amid our thought of how understudies learn, we additionally talked about some extremely fascinating work which has been going ahead in the material science group amid the previous decade. Evaluation apparatuses have been produced to quantify the subjective comprehension of fundamental standards held by understudies after they have concentrated on school material science[14]. They appear to demonstrate that even material science majors from prestigious schools neglect to apply acknowledged standards of Newtonian mechanics to ordinary occasions, applying

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[14] Dan Kalman. New Mathwright Library (Software Review). *College Mathematics Journal*, 30:5(1999)376– 395

rather guileless understandings of movement and elements that physical science has appeared to be inaccurate.

This has as of now prompted changes in the way material science is being taught. One intriguing case is a strategy created by Eric Mazur (see for instance; additionally visit the site http://galileo.harvard.edu, especially under the heading of Peer Instruction)[15]. Mazur shows fundamental material science at Harvard, in a substantial address lobby, and uses the accompanying speedy yet successful cooperative learning strategy. After he speaks for around fifteen minutes on another theme, he gives a different decision inquiry to see whether understudies have caught on. Their answers are immediately tallied and reported. Regularly there is generous difference about what is the right reply, so he approaches them to talk about the inquiry for a few minutes and afterward vote once more. More often than not, after energetic examinations, the vast majority of the understudies vote accurately the second time. When this happens, Mazur attests the right result and goes on. Else he examines the understudies' misinterpretations quickly. His understudies once in a while miss class, for they have discovered that these set up it together inquiries are a key to passing the course!

Enlivened by Mazur's methodology, a subgroup of the PCMI-UFP members made some preparatory strides toward creating questions that may evaluate applied learning in direct polynomial math. The outcomes are contained in the Curriculum and Pedagogy Report posted at the PCMI-UFP site. TLAQ additionally contains some talk of our encounters utilizing an adjustment of Mazur's methodology in straight polynomial math classes.

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[15]RichardN.SteinbergandMelS.Sabella.PerformanceonMultiple-ChoiceDiagnosticsandComplimentary Exam Problems.*Physics Teacher* 35 (1997)140–145

For us, partaking at PCMI propelled a rededication to helping understudies accomplish significant learning, and a restored valuation for how troublesome this can be. As math-ematicians, we know about the rich interconnections of various thoughts and ideas. We might want our understudies to figure out how distinctive thoughts fit together, supporting and approving each other, and adding to a more profound comprehension of every part. We realize that understanding does not come about because of being recounted every individual truth and guideline, yet originates from effectively investigating a numerical subject, finding and rediscovering the interconnections until they get comfortable and ordinary. In any case, we who have created understanding on this level danger overlooking the exertion that preceded: the stumbles, false speculations, deficient and conflicting originations. In full ownership of the realities, we discuss them piecemeal to our understudies as though we anticipate that each new disclosure will fit actually and easily into the example of what has as of now been exhibited. Instructors ought to be careful about this perspective, and suspicious of its adequacy in the classroom. Significant learning is hard to accomplish and it once in a while happens unless understudies effectively think about the thoughts.

Innovation. The product bundle MATLAB is a standout amongst the most normal for use in straight variable based math, as it was created particularly for lattice operations. PC records for use with MATLAB are accessible from some reading material distributers (e.g., for use with Lay's content)[16], and uncommonly composed MATLAB and MAPLE showing codes devel-oped at MIT are accessible at web.mit.edu/18.06/www/. MATLAB materials for educate ing direct polynomial math have likewise been produced by a task called ATLAST. Subsidized by the NSF, the ATLAST Project displayed a

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[16]RogerHowe.VeryBasicLieTheory.*AmericanMathematicalMonthly,*90:9(1983)630–643

progression of workshops in 1992–97 to familiarize direct polynomial math instructors with employments of instructional innovation. A portion of the materials de-veloped at the workshops have been distributed[17]. There is a site for the venture at www.umassd.edu/SpecialPrograms/Atlast/welcome.html.

There are additionally course readings that have been produced for use with other programming pack-ages, and which depend on PC exercises as the essential method for direction. Ex-amples are [18] and [19]Another way to deal with instructional innovation opens understudies to arithmetic inside the recognizable intuitive medium of windows and webbrowsers, with the objective of making the cooperation so regular that understudies can offer conversation starters and look for a swers with for all intents and purposes no interpretation into a PC linguistic structure. These sorts of activi-ties are turning out to be progressively basic as Java Applets on pages. The MAA's new Journal of Online Mathematics will highlight a gathering of such exercises on its "Mathlets".[20]

In a comparable vein are website page like intuitive situations that work with delicate product called Mathwright. The Mathwright Library site (www.mathwright.com) makes the product and a gathering of exercises openly accessible. The exercises in the library were produced by educators utilizing an effective advancement instrument called Math-wright Author (see audits)[21]. The Mathwright Library gives

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[17]WilliamH.Schmidt,CurtisC.McKnight,andSentaA.Raizen.*ASplinteredVision:A nInvestigationofU.S.ScienceandMathematicsEducation.*KluwerAcademicPress, 1997

[18]John R. Wicks. *Linear Algebra: An Interactive Laboratory Approach With Mathematica*, Addison-Wesley, 1996

[19]William A. McWorter, Jr. and Leroy F. Meyers.Computing eigenvalues and eigenvectors without determi- nants.*MathematicsMagazine,*71:1(1998)25–43

[20]www.maa.org

[21]EricMazur.*PeerInstruction:AUser'sManual*,PrenticeHall,1996

exercises on an expansive scope of scientific subjects, including a couple proper for use in a straight variable based math course, and in addition numerous others that can give direct polynomial math educators tests of the connections conceivable with current innovation.

THE IMAGE OF EMERGING NEW WOMAN IN MAHASWETA DEVI'S FUNCTION

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Abstract

One can see an amazing world through the eyes of women writers. However, the women writers during the pre-Independence period thought it a virtue for a woman to be a passive sufferer rather than to be self-assertive. The prevailing social customs and the age-old tradition did not give scope for woman to 'think' independently. But gradually women characters with individuality and self assertiveness, breaking away from conventional behaviour started emerging the fictional world. The novelists started writing seriously about the problems of women and the way of overcoming them.

Mahasweta Devi has many master pieces like Hazaar Chaurasir Maa, Rudali, Bioscoper Baksho and Chatti Munda O Tar Teer to her credit. She writes about the lives of tribal people like the Santhali, Lodha, Mundas and Shabars in particular and also on other topics of social and political relevance. Unlike most writers, she is an activist and has spent many years crusading for the rights of the tribals. Mahasweta Devi is the only person working for the de-notified tribes.

Introduction

Mahaswetha Devi has been able to integrate creativity her approach with her service to people. She spends days and months living with the people she writes about. Her books focus on the simple lifestyle of the tribes but more importantly their sufferings and feelings under exploitation. She portrays the woman as struggling to preserve her 'Identity'. What distinguishes Mahasweta Devi from most of the other

writers is her ability to portray the contemporary woman's struggle for individuality and her search for identity.

Her Narrature Style

The two classes of characters that have dominated Mahasweta Devi's stories and novels in 1970s are the mothers (women) bearing the brunt of social and political oppression and enduring and resisting with indomitable will. Her characters are products of exploitation, direct and inhuman. Govind Nihalani, the noted film director of Indian Cinema, on the occasion of the release of the film "Hazaar Chaurasi ki Ma" views that from literacy point of view, Mahasweta Devi's works are outstanding. From sociological point of view her works are of great value. As far as her approach is concerned one finds that she is very concerned about the fate of her characters, about the dignity of their lives, about their survival in the community, the exploitation they are subjected to, the hardships they face, the official indifferences and apathy. Theirs is a tale of survival against odds. She does not stop with merely shedding tears over the plight of the tribal community; she goes beyond that to explore, to implant the seeds of protest and struggle. Through her writing, one gets to hear the voice of a community that is otherwise voiceless.

There is a continuum between Mahasweta Devi's women and leaders of men, between the cold, growing awareness of the former shaping into resistance, or stopping at the very edge of defiance, and the evolving militancy of the latter. They are invariably located within a network of relationships defining their personalities in absolute clarity. Life on the fringe creates a culture of the fringe, a culture often described in terms of rituals, foods and practices that lie outside the pale of respectable existence.

Mahasweta Devi's powerful and haunting tales of exploitation and struggle have been seen as rich sites of feminist discourse by

leading scholars. Her fiction presents the reader with a picture of the subaltern women's body literally revolting against the post-colonial state. But these acts of bodily resistance and revolt are clearly not part of an intentional political struggle. The exploited and abused bodies of Jashoda and Douloti stand as a painful reminder of the class and gender inequalities that continue to divide India, despite the emancipatory promises made by the ruling political elite in the name of decolonization and democracy.

Mahasweta Devi opines that women "are generally much stronger than men. They can take a lot. Even if the breadwinner or husband dies, many women pull out whereas the husband becomes helpless. But women have not been given their due role, recognition". She further states that "she would like to portray woman's strength, determination, and exploitation in the society" (Gabrielle Collu, 1997)

Mahasweta Devi's Feminist Angle :

Mahasweta Devi's writings provide scope for viewing the work from the feminist angle. Women bearing the brunt of social and political oppression and enduring and later offering resistance with indomitable will dominate her writing. Widely seen as an imported western concept strongly identified with white bourgeois concerns and issues, the term 'feminist' is often aligned with elite urban intellectualism, and frequently seen as reductive or limiting. Ironically, this causes many liberated activists, progressive women working with women's issues and rights in this country to shy away from the label 'feminism' while practicing it in their lives and work. Usha Ganguli, who adapted and produced Rudali as a play in Hindi at Calcutta theatre group Rangakaramee in December 1992, expresses this paradox: "I feel that I differ from the way people tend to use the term feminism. I believe in the liberation of women and their freedom and I am trying

my best as a person, as a teacher as a theatre worker to work towards that".

Insight of her Novels :

Rudali is a story that sees an evolution in the central character Sanichari, who emerges at the end and as better equipped to adapt, survive and manipulate the system – in other words more empowered- than she is at the beginning. The events in Sanichari's life show a direct connection between the personal event and the exploitative system. Her husband dies of cholera, daughter-in-law and grandson leave and she is forced into indebtedness to Ramavatar, all this of the dire poverty. Oppression is hereditary, for both the exploiter and the exploited.

Paralleling the economic stranglehold of the landlords is the social oppression of a religious system, which controls through fear and superstition. Not once, throughout the study, is religion shown as offering solace or succour.   On the contrary, religion further impoverishes and enslaves, causing indebtedness through its web of demands and obligations. All one sees of religion is superstition and ritual. Set against the exploitative system is the issue of survival. 'Rudali' is about 'how to survive .. bread and mouth, the whole system through this', says Mahasweta Devi. In spite of the author's view, Rudali can be labelled as a feminist text. Firstly Rudali traces Sanichari's growing empowerment, which is helped by Bikhni's more open and adaptive attitude to new ideals and opportunities. The Sanichari we encounter at the end of the story – outgoing, shrewd, and manipulative – is very different from the stoic, long suffering but repressed woman we see earlier.

Sujata, the protagonist in Mother of 1084 is an affluent and sensitive mother, trapped in the conflict within herself between a sympathetic mother and a silent protestor against the immoral life

which her household stands for. She is reduced to a mere cog in the patriarchal family system. However she is a working women for whom her work is in itself a form of protest and self-assertion against the patriarchal authority of her husband and she feels at home in the company of her son, Brati, who like her, has no fancy for the glittering life that their rich family background offers.

Sujata discovers only too late that her son is a part of a Naxalite movement when she is summoned one morning to identify his dead body in the police morgue. But the reward for Sujata for begetting a son like Brati is on "The police …. Morgue" and the sophisticated number "1084" for identifying the dead. The realization is poignant as she says "Brati was the soul of my life, yet I knew him so little". However the more she sees in Brati's revolt an articulation of the silent resentment she has carried within herself, the closer she feels to her son, the corpse number 1084. In any normal situation, any mother would have collapsed on seeing the son's dead body. But Sujata faces the reality with fortitude and equanimity.

With Sujata, Mahasweta Devi tries bring to light the darker areas of where the persecution and suppression of the innocent continues unabated. Subsequently with every encounter, Sujata finds a moral rationale for her son's revolt and she feels punished for not knowing him. Alienated from her complacent husband and other corrupt children, she finds herself drifting towards the ideology of her dead son. Her identification with him is complete, She defends his sacrifice and has no regrets inbeing classed with him. She feels satisfied when she finds in his revolt a parallel to her silent protest against her own corrupt household. In the end, Sujata takes up what her son left unfulfilled with a metaphorical appeal to the audience and the reader: "Why don't you speak? Speak, for heaven's sake, speak, speak, speak! How long will you endure it in silence?" Through a character like Sujata, Mahasweta Devi seems to suggest that sacrifice

on the part of the victims of oppression is not only inevitable to defend their inalienable rights as members of the human family, but it is a mark of the ultimate victory of the human values and in unmistakable pointer to the defeat of the inhumanity of the oppressor.

Dopdi (the tribal form of Sanskrit name) in Mahasweta Devi's sotry Draupadi is stripped and gang raped as punishment of her political misdemeanor and impertinence. Dopdi refuses to put on her clothes as she faces the lawgiver, Senanayak: "You can strip me but how can you clothe me again?" (Spivak, 1987; 196) Dopdi's defiance is an act of militant spontaneity that at a different level also spells a feminist gesture. In spite of her violent physical and sexual torture, she refuses to be clothed stands as an unequivocal sign of political resistance and agency.

CONCLUSION :

Through the characters of Rudali, Sujatha and Dopdi, Mahasweta Devi has created a ray of hope for the suffering woman. Her novels suggest symbolically that a woman needs will power and strength to resist the male domination. She implies that passivity and submissive suffering are no more desirable virtues but self-destructive qualities. To protect her "self" a woman has to out do her traditional role of "silent sufferer". Through Sujatha and Dopdi, Mahasweta Devi suggests that a woman has to have vigour and will to safeguard her individuality and identity.

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తెలంగాణా పల్లెల్ని తరతరాలుగా పట్టిపీడిస్తున్న సాంఘిక దురాచారాలైన భూస్వామ్య విధానం, కులవివక్ష, అంటరానితనం, అవిద్య, మూఢనమ్మకాలు, సంప్రదాయం ముసుగులో జరుగుతున్న వివిధ రకాలైన వ్యవస్థీకృతం కాని వ్యవస్థీకృతం అయిన లైంగిక ఆకృత్యాలు, అణిచివేతలను తెలంగాణ సాహితీకారులు అక్షరీకరిస్తున్నారు. దాంట్లో భాగంగా వచ్చిందే ఈ జోగిని నవల.

శాంతి ప్రబోధ రాసిన జోగిని నవలలో జోగిని వ్యవస్థలోని సాహిత్య, సాంస్కృతిక, సామాజిక కోణాలను పరిచయం చేయడమే ఈ పత్రఉద్దేశ్యం. కథలోకి వెళ్తే కవిత, విద్యలు మంచి స్నేహితులు. పద్మావతి మహిళా యూనివర్సిటీ లో చదువుతూ ఉంటారు. విద్య పుట్టి పెరిగింది విజయవాడలో, కవితది నిజామాబాద్ జిల్లా సిరిపురం గ్రామం కవిత తండ్రి రాజాగౌడ్ సిరిపురం గ్రామసర్పంచి. కవిత బలవంతం మేరకు సెలవుల్లో విద్య సిరిపురం గ్రామానికి వస్తుంది. తెలంగాణ పల్లెలను వారి ఆచార వ్యవహారాలను చూడాలనే ఆత్రుత కూడా విద్యకు ఉంటుంది ఆగ్రామంలో జరిగే " ఊర పండుగ" ను, పులుగొవిని చూస్తుంది. ఆ పండుగలో జరిగే వివిధ ఘట్టాలను ఆసక్తితో అడిగి తెలుసుకుంటుంది ముడుపుకట్టడం, గావుపట్టడం, జోగిని స్త్రీలు కళ్ళుతాగి మైకం కమ్మినట్లు నాట్యం చేయడం వంటివి చూస్తుంది. జోగిని అంటే దేవత భార్య అనీ, నిత్య సుమంగళి అని, పోతరాజు దేవత పేరు మీద తాళి కట్టిన నాటి నుండి ఆ దేవతకే భార్య అవుతుంది అని తెలుసుకుని ఆశ్చర్యపోతుంది.

జోగినిగా తయారు చేయబడిన వారికి జీవితాంతం వేరొకరిని పెళ్ళి చేసుకుని కుటుంబ సంసార జీవితం గడిపే అర్హత ఉండదు. దేవుడికి నైవేద్యం పెట్టిన ఫలహారం. అందరూ భోం చేసినట్లు దేవతకు వదిలిపెట్టిన జోగిని ఊరందరి ఉమ్మడి ఆస్తి అందరి శారీరక సుఖానికి అందుబాటులో ఉండాలి. ఫలానా వారు నా భర్త అని లేకుండా, చనిపోయే వరగు వైదవ్యం లేకుండా నిత్యసుమంగళిగా ఆమెను తయారుచేస్తారు. ఇది శతాబ్దాల నుండి చెలామణిలో ఉన్న ఆచారం, ఒక వ్యవస్థ మాల, మాదిగ స్త్రీలలో మాత్రమే జరిగే ఒక అస్తవ్యస్త దుస్థితి.

జోగిని వ్యవస్థను భూస్వామ్య పెత్తందార్లు తమ, తమ లైంగిక వాంఛలను తీర్చుకోవడానికి దళిత స్త్రీలను ఉపయోగించుకునేందుకు వ్యవస్థీకరించిన ఒక ప్రక్రియగా విద్య అతి త్వరలోనే తెలుసుకుంటుంది. ఇదంతా వతన కొద్దీ వస్తున్నదే మేం ఇది భరించాల్సిందే లేకపోతే దొరల ఆగ్రహానికి బలికావాల్సిందేనని జోగు సాయవ్వ చెప్పింది. ఈ నవలలో ప్రధానపాత్ర జోగు పోశవ్వ సాయవ్వ బిడ్డ తనను తన మేనబావకు పెళ్ళి

చేసుకోనియ్యకుండా అడ్డుపడి బలవంతంగా పోశవ్వకు జోగినిగా మార్చినందుకు రాజాగౌడ్‌పై ఎప్పుడూ కోపంగా ఉంటుంది. ఊరిలో పెళ్ళిళ్ళు జరిగినా, శవాన్ని ఊరేగిస్తున్నా వాటిలో డాన్స్ చేస్తూ ఉండడం వారి జోగు వృత్తిలో భాగం. డ్యాన్స్‌లో పడిన చిల్లరను ఏరుకోవడం, ఆ తరువాత బిక్షం అడుక్కోవడం వారి పని. జోగు సాయమ్మ, జోగు పోశవ్వలాగే చుట్టు పక్కల ఉన్న గ్రామాల్లో జోగినీలది ఒక్కొక్కరిది ఒక్కొక్క దీనగాథ. మల్లమ్మ, గంగామణి, గంగదొల్ల దేవమ్మ, రాజమణి, జోగు చిన్నమ్మ మొ: ఎంతో మంది కుటుంబాలు చేతబడి నెపంతోనే లైంగిక అంటు వ్యాధులతోను, హిస్టీరియా వ్యాధితో, తండ్రిలేని అవమాన భారంతో తమ జీవితాలను చిన్నాభిన్నం చేసుకున్న వారే " అమ్మ" అనే స్వచ్ఛంద సంస్థ చూపిన చొరవతో జోగినుల జీవితాలలో కొంత మార్పు రావడం ఈ నవలలో చూస్తాం.

మరోవైపు ఆంధ్రప్రదేశ్ ప్రభుత్వం, జోగినిల వ్యవస్థను రూపుమాపేందుకు జోగిని, బసివి, దేవదాసీ నిర్మూలనా చట్టం–1988 తెచ్చే నాటికి జాతీయ మహిళా కమీషన్, మహిళలకు గ్రామస్థాయి నుండి పార్లమెంట్ స్థాయి వరకు 33% రిజర్వేషన్ కల్పించాలని ప్రభుత్వాన్ని కోరింది. 73,74 రాజ్యాంగ సవరణ ఫలితంగా స్థానిక సంస్థలలో మహిళలకు 33% సీట్లను కేటాయించడం వలన సిరిపురం గ్రామ సర్పంచ్‌గా జోగు పోశవ్వ సర్పంచ్ అవడం ఈ నవలలో ఒక కీలక పరిణామం. పోశవ్వ సహజంగానే తెలివితేటలు, హుషారుతనం కలది. గుండె ధైర్యం ఉంది. కొత్తగా ఎన్నికైన మహిళా ప్రతినిధులకు ఇచ్చిన ట్రైనింగ్ వల్లనో 'అమ్మ' స్వచ్ఛంద సంస్థ టీచర్ రవిమాదిగ, విద్యలు ఇచ్చిన సహకారం వల్లనో, సర్పంచ్‌గా ఉన్నత కులాలు పెట్టిన ఎన్నో అడ్డంకులను సమర్ధవంతంగా ఎదుర్కొంటుంది. అభివృద్ధి అంటేనే తెలియని ఆ గ్రామంలో భూమి సమస్య, రోడ్డు, మరుగుదొడ్డు, రేషన్, ఫించన్ వంటి ఎన్నో కార్యక్రమాలను చేపట్టింది, ఉత్తమ గ్రామపంచాయితీ అవార్డుతో పాటు, మహిళా ప్రతినిధి అవార్డులను అందుకుంటుంది. మండల పరిషత్ ఎస్.సి. మహిళలకు రిజర్వ్ కావడంతో ఆమె ఎంపికకు తిరుగు లేకుండాపోతుంది. మండలంలో ఎల్లారెడ్డి మండలంలో సాధించిన ప్రగతికి గాను జాతీయస్థాయిలో ప్రతిష్ఠాత్మకమైన " నీరజాబానోత్" అవార్డుకు ఎంపికవుతుంది. డిల్లీలో జరిగిన కార్యక్రమంలో రాష్ట్రపతి చేతులమీదుగా అందుకుని మీడియా ద్వారా జాతీయ, అంతర్జాతీయ దృష్టిని ఆకర్షిస్తుంది.

న్యూయార్క్ హ్యూమన్‌రైట్స్ మహిళా విభాగంలో పని చేస్తున్న విద్య ఇంటర్నెట్‌లో పోశవ్వ గురించిన వ్యాసం చూసి ఆనందంతో ఉప్పొంగిపోతుంది. అణిచివేత అత్యాచారాలు, అవమానాలు, అసమానత్వంతో ఒకప్పుడు అగ్నికణంలా కణకణమండిన పోశవ్వ వాటన్నింటిని అధిగమించి తనను తాను నిత్యం శక్తివంతం చేసుకుంటూ ఆత్మస్థైర్యంతో, విశ్వాసంతో ముందడుగు వేస్తున్న పోశవ్వను మనస్ఫూర్తిగా అభినందిస్తుంది. ఇది స్థూలంగా కథ. ఈ నవలా రచయిత్రి శాంతి ప్రబోధ తన ప్రత్యక్ష అనుభవ పద్ధతుల ద్వారా నవలకు కావాల్సిన ముడి సరుకును తీసుకున్నారు. తెలంగాణ పల్లెలోని జోగినీ సంప్రదాయంలోని అన్ని ఆచారాలు, వ్యవహారాలు, ఘట్టాలను, వీటికి సంబంధించిన పారిభాషిక పదాలను నిర్ధిష్టమైన వాస్తవిక విశ్లేషణలను ఈ నవలలో చూస్తాం వాటిని ఒకసారి పరిశీలిస్తే...

గావువట్టడం:

జోగినిలను తయారుచేసేపుడు ఎల్లమ్మ దేవతను కొలుస్తారు. పోతరాజు మంత్రాలు చదువుతూ మేకనో, కుందేలు, గొర్రెపిల్లనో, కోడినో తన పంటితో గట్టిగా ఒకేసారి కొరుకుతాడు. అలా కొరికేపుడు తల, మొండెం వేరు కావాలి. దీన్నే 'గావుపట్టు' అంటారు. ఊర పండుగలో ఇది చేస్తారు. గావుపట్టులో ఒక్కోసారి పోతరాజు పళ్ళు ఊడవచ్చు, అతని ప్రాణం పోవచ్చు.

ఊర వండుగ:

ఊర పండుగ అంటే ఊరందరిది. ప్రతి కుటుంబం ఇంత అని చందాలు వేసుకునే పండుగ. గ్రామదేవతలను తృప్తిపరచడం కోసం ఈ పండుగ చేస్తారు. గ్రామంలోని పశువులు ఏదైనా అనారోగ్యానికి గురై చనిపోతే అందుకు కారణం గ్రామ దేవత ఆగ్రహించడమని ఊరి ప్రజల నమ్మకం. కొన్ని చిల్లర పైసలు, కుంకుమ, పసుపు, బియ్యం, చిన్న మూటకట్టి గ్రామ దేవత దగ్గర ఉంచుతారు. దాన్ని " ముడుపు" అంటారు. ముడుపు కట్టిన వారం రోజులకు ఊరపండుగ చేస్తారు.

గ్రామ దేవతలు:

ఊరడమ్మ, పోశమ్మ, ఎల్లమ్మ, లక్ష్మమ్మ, గజ్జలమ్మ, మార్గమ్మ, పోడాలమ్మ, ఈరమ్మ, సాగరమ్మ, ముత్యాలమ్మ, పోశమ్మ, ఎల్లమ్మ, మైసమ్మ.

పోడాలమ్మ–గ్రామ సరిహద్దులో కాపలా ఉండే దేవత

ఊరడమ్మ– ఊరిని రక్షించే దేవత

ఎల్లమ్మ–ఊరి కాపలా

పోశవ్వ–ప్రేతాత్మలు ఆవరించకుండా బొందల గడ్డకు కాపలాకాసేది.

మైసమ్మ–నివాసాలు పాడైపోకుండా కాపాడే దేవత

సాగరమ్మ–దొరలగడీలు కాపాడేందుకు

ఈరమ్మ– గడీలలోని ఆడవారి రక్షణకు

లక్ష్మమ్మ–ఊరి సంపదలు కాపాడడానికి

పోతురాజు:

జోగినిగా తయారుచేయబడే వాళ్ళకు గ్రామ దేవత పేరుమీద పోతరాజు మంగళసూత్ర ధారణ చేస్తాడు. పూజారి పోతరాజు. అతనికి పుట్ట వెంట్రుకలు తీయరు . జుట్టును ముడి వేసుకుంటాడు. ఆ ముడి పవిత్రమైనదని, ఎన్నో మంత్రశక్తులున్నాయని అంటారు. చేతిలో కొరడా, మణికట్టుకు కడియం, కాళ్ళకు కడియాలు ఉంటాయి. ఊర పండుగకు వెళ్ళేప్పుడు పోతరాజు ఆయన భార్య బొట్టు తుడిచేసి, గాజులు పగులగొట్టి అమంగళకరంగా, వైధవ్య రూపమిచ్చి పోతరాజును పంపుతారు.

జోగుపట్ట:

జోగినిని గ్రామ దేవతతో వివాహం జరిపించడం జోగిని అయ్యే అమ్మాయికి 9 సం:లోపు ఇది చేస్తారు. చిన్న వయసులో భావిజీవితం గురించి ఆలోచన ఉండదు. ఈ కార్యక్రమం పోతరాజు చేస్తాడు. అతడే మంగళసూత్రం కడ్తాడు.

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చావుపట్టం: (ఆఖరి పట్టం)

జోగినీ చనిపోతే ఆ శవానికి పెళ్ళి కూతురువలే ముస్తాబు చేస్తారు. పాడె మీద పడుకోబెట్టకుండా, పాడెను, కుర్చీవలే తయారుచేసి దాంట్లో కూర్చోబెడతారు. పెద్ద బొంద తీసి అందులో కూర్చోబెడతారు.

శవయాత్ర నృత్యాలు:

భూస్వాములు మరణించినప్పుడు ఆ ఊరేగింపు ముందు జోగినీలు చేసే నృత్యాలు. ఊరేగింపులో ప్రజలు కొంత డబ్బును జోగినుల ముందు విసిరేస్తారు. అది వారు తీసుకోవాలి. 5, 10 నోట్లను ఇసిరినప్పుడు కొంతమంది జోగినిలు కంటి రెప్పలతో దాన్ని తీస్తారు. నృత్య ప్రదర్శనలో ఇది గొప్ప నైపుణ్యం.

ముగింపు:

తెలంగాణలో సామాజిక, సాంస్కృతిక అంశాలకు ఎంతో లోతైన చరిత్ర ఉంది. ఘనమైన తెలంగాణా, సామాజిక, సాంస్కృతిక సాహితీ చరిత్ర ఒక వైపు మరుగునపడిపోతు, మరో వైపు వక్రీకరణకు గురవుతున్న నేటి సందర్భంలో మన చరిత్రను మనం తొవ్వుకునేందుకు , మన సంస్కృతిని మనం తడిమి చూసుకునేందుకు, వాస్తవిక దృష్టితో వ్రాసిన ఈ జోగినీ నవల ఎంతో ఉపకరిస్తుందనడంలో సందేహంలేదు. అనగారిన జాతుల చరిత్ర రచనలో అంతగా చోటు చేసుకొని జోగినీ వ్యవస్థలోని పలు అంశాలు తెలంగాణ సాహిత్య సేకరణకు, అధ్యయనానికి ఉపయుక్తంగా ఉంటాయని   భావిస్తున్నాను.

(JANAPADA INDRAJALA PRADARSANA KALALU - SAMAJIKA SPRUHA)

(జానపద ఇంద్రజాల ప్రదర్శన కళలు – సామాజిక స్పృహ)

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ABSTRACT   (సంగ్రహ పరిచయం)ః

మానవ జీవన వికాసానికి తోడ్పాటునందించేవి కళలు. జానపదులచే ప్రదర్శింపబడే కళారూపాలే జానపద కళారూపాలు. ఇవి మనిషిలో సోమరితనాన్ని, అజ్ఞానాన్ని దూరం చేసి చైతన్య జీవనాన్ని అందిస్తాయి. సమాజంలో కష్టాల్ని కన్నీటిని తుడిచి కుళ్ళును, కుతంత్రాలను పటాపంచలు చేయటానికి తోడ్పడతాయి. అందుకే కళాకారులు విశ్వమానవులై అజేయులై నిలుస్తారు. వారు ప్రదర్శించే కళలు మంచికి, మానవత్వానికి ప్రతీకలై సమాజానికి మార్గ నిర్దేశం చేస్తాయి. ఈ విధమైన మార్గ నిర్దేశం చేసే కళారూపాలలో విశిష్టంగా పేర్కొనదగినవి జానపద ఇంద్రజాల ప్రదర్శనా కళలు. ఇవి మిగిలిన కళారూపాల కంటే భిన్నమైనవి.

Key Words (ముఖ్యాంశాలు)ః కాటిపాపలు, దేవర పెట్టె వేషం, మొడి, విప్రవినోదాలు, సాధనాశూరులు. సామాజిక స్పృహ

Introduction   (ఉపోద్ఘాతం)ః

సామాజిక జీవనానికి, ఐక్యతకు ప్రతిబింబం జానపదకళలే. జానపద కళా రూపాల ద్వారా వ్యక్తి శక్తివంతమైన సాధనంగా మారి రకరకాల విన్యాసాలు చేస్తూ తోటి వ్యక్తుల మనస్సులో ఆలోచన కల్గజేసి వారిని నూతన పంథావైపు నడిచేటట్లు చేస్తాడు. ముఖ్యంగా మూఢ నమ్మకాల పట్ల ప్రజలకున్న విశ్వాసాలను సడలించడానికి, బాధాతప్త హృదయాల బరువుల్ని తొలగించడానికి ఏర్పడ్డ కళలే ఇంద్రజాల ప్రదర్శనా కళలు. సమాజం మతమౌఢ్యాలతో, మూఢ నమ్మకాలతో కొట్టు మిట్టాడు తున్న కాలంలో తనకు తెలిసిన హస్తలాఘప విద్య ద్వారా సామాజిక చైతన్యాన్ని కలుగజేయటానికి కళాకారులు పూనుకున్నారు.

ఒకప్పుడు రాజాస్థానాలలో వినోదం కోసం ప్రదర్శింపబడ్డ కళలు మారుతున్న కాలానికనుగుణంగా మార్పు చెందుతూ విజ్ఞానదాయకమైన సందేశాన్ని అందిస్తున్నాయి. జానపద ప్రదర్శనా కళల్లో ఇంద్రజాల ప్రదర్శనా కళలు పిల్లలనేగాక పెద్దలను అలరిస్తూ నీతిదాయకమైన ఆలోచన సంద్రంలోకి నడిపించాయి. ఇంద్రజాల ప్రదర్శనా కళల్లో కాటిపాపలు, దేవర పెట్టెవేషం, మొడి, విప్రవినోదాలు, సాధనాశూరులు ముఖ్యమైనవి.

కాటిపాపలుః

సహజంగా ఒక వ్యక్తి చనిపోయినప్పుడు రక్త సంబంధీకులు, బంధువులు విచారణ వదనంతో వేదన చెందటం కన్పిస్తుంది. ఆ సమయంలో వారికి ధైర్యపు మాటలు చెబుతూ, శాంతి పచనాలు పలుకుతూ వ్యవహరించే బుడిగిజంగాల వారినే కాటిపాపలు అంటారు. వీరు శవాన్ని కాటికి తీసుకుపోయే సమయంలో తమ వాక్చాతుర్యాన్ని ప్రదర్శిస్తూ, కొన్ని కళలు అభినయిస్తూ బాధాతప్త హృదయాలతో బాధపడే కుటుంబాల వారికి స్వాంతన చేకురుస్తారు. వీరు చేసే రకరకాల విన్యాసాలు చూడటానికి ప్రజలందరూ గుమ్ముకూడతారు.

కాటిపాపలు 5 గురు లేదా 6 గురు కలసి ఇనుప గంటలు ఊపుతూ పాటలుపాడుతూ ప్రదర్శన ఆరంభిస్తారు. నపేరాలు లేదా బాకాలు అనే వాటిని ఊది శంఖధ్వనులు చేస్తూ శవానికి ముందు నడుస్తారు. దహన సంస్కారాలు అయిన తర్వాత ఆకుటుంబ యజమాని ఇచ్చే తృణమో, పణమో అందుకొని వెళ్ళిపోతారు.

కాటిపాపలు ఖాళీ సమయంలో ఇంద్రజాల ప్రదర్శనలు చేస్తుంటారు. గ్రామ కూడలిని వేదికగా చేసుకొని చమత్కారమైన మాటలతో ప్రజలను ఆకట్టుకుంటారు. ప్రదర్శనలో ముక్కుల్లో నుండి, చెవులలో నుండి, గద్దలలో నుండి సీసం గోళీలు తీస్తూ అందరినీ ఆశ్చర్యపరుస్తారు. చేతిలో ఎముక పట్టుకొని ఏవేవే మంత్రాలు వల్లిస్తూ రాళ్ళను, కప్పలను ప్రజల మీదకు విసిరివేస్తుంటారు. ఒకరు ఈదంతా ప్రదర్శిస్తున్న సమయంలోనే మరొకరు హాస్య ప్రసంగాలతో ప్రజలను కడుపుబ్బనవ్విస్తాడు. మరొకరు వేప మండ పట్టుకొని గంభీరంగా మంత్రాలు ఉచ్చరిస్తూ వాటిని విదిల్లిగా కుప్పల తెప్పలుగా పాములు, తేళ్ళు, కప్పలు క్రింద పడతాయి. వాటి గురించి చెబుతూ ఉండగానే మరలా మాయం అవుతుంటాయి. వీటి గురించి వారిని ప్రశ్నిస్తే "తాటకం, బూటకం, కనికట్టు, మాగుట్టు చెప్పము మీమీదొట్టు" అంటూ ఇది హస్తలాఘవ విద్య అని మా కడుపు మీద కొట్టాద్దంటూ ప్రాధేయ పడుతూ అక్కడ చేరినవారు తమకు తోచిన సహాయం చేస్తే తీసుకొని మరొక ప్రాంతం వెళతారు.

కాటిపాపల వేషధారణ కూడ చిత్రవిచిత్రంగా ఉంటుంది. తలకి ఎర్ర లేదా తెల్ల రూమాలు కట్టుకొని పన్నెండు రేకుల గల నాగుపాము పడగ ఆకారం గల ఉత్తడి కిరీటాన్ని తలకు ధరిస్తారు. రుద్రాక్షలు ఉన్న కర్ణకుండలాలు, జూల్తారు వస్త్రాలు, నడుముకు ఇత్తడి మువ్వలు కూర్చిన బెల్టు, దానికి చిన్న చిన్న గంటలు అమర్చుకొని, పాముపడగెలకొనలు ఉన్న చెప్పులు, చంకన జోళెతో కన్పిస్తారు. ముఖ్యంగా నేడు గుంటూరు జిల్లాలో పిడుగురాళ్ళ, వినుకొండ ప్రాంతాలవైపు వీరు కన్పిస్తున్నారు.

దేవర పెట్టె వేషం:

పగటి వేష కళారూపాలలో ఇంద్రజాల ప్రదర్శనాయుతమైన కళారూపం దేవర పెట్టె వేషం. ఒకప్పుడు పగటి వేషాలను కూచిపూడి భాగవతులు ఆదరిస్తే తర్వాత కాలంలో రకరకాల వారి ఇళ్ళలో నాట్యం చేసి చివరకు బుడిగ జంగాల ఇళ్ళలో తిష్టవేసింది. నేడు పగటి వేషాలను తన జాతి కళగా భావించి ప్రదర్శిస్తున్న వారు బుడిగ జంగాలవారే. వీరు వేరువేరు ప్రాంతాలలో నివశిస్తున్నప్పటికీ ప్రజలను చైతన్యం చేయటం కోసం కళలను ప్రదర్శిస్తూ జీవనోపాధి పొందుతున్నారు.

పగటివేష కళారూపాలు మొత్తం 64 కళలు అని చెప్పబడుతున్నప్పటికీ నేడు 30 లేదా 32 కళా రూపాలే ప్రదర్శనకు నోచుకుంటున్నాయి. అందులో విరివిగా ప్రదర్శింపబడుతున్న కళారూపం దేవర పెట్టె వేషం.

బుడుగ జంగాలకుల దేవత సంకులమ్మ. అష్టాదశ పీఠాలలో ఒకటైన శృంఖలాదేవే సంకులమ్మ. ఆ తల్లిని దేవరగా చేసి గద్దె చేసుకొని ఉపాసన చేస్తూ చేసే ప్రదర్శన దేవర పెట్టె వేషం. ఈ సమయంలో వీరు తల్లి మహాత్మ్యాన్ని తెలియజేస్తూ ఆమె మీద పాటలు పాడుతూ ఇంద్రజాల ప్రదర్శనకు పూనుకుంటారు. గుమ్ముకూడిన జనాలను ఉద్దేశించి ప్రధాన కథకుడు "ఇంద్రజాల మహేంద్రజాల టక్కుటమార, గజకర్ణ, గోకర్ణ, చేసేది రెండు చేతులు చూసేది వేయికళ్ళు చూడండి" అంటూ ప్రేక్షకులను తన మాటల తూటాలతో మంత్ర ముగ్దులను చేస్తూ ఇంద్రజాల ప్రదర్శనవైపు తిప్పుకుంటూ ప్రదర్శన చేస్తాడు.

వీరు రెండు విధాల ఇంద్రజాల ప్రదర్శనలు చేస్తారు. అవి 1). పంచ తంతులు, 2). స్థంభనలు.

పంచ తంతులు అనగా సర్పతంతు, శల్యతంతు, మండూక తంతు, వృశ్చకతంతు, తాపరతంతు, పాములు, కప్పలు, తేళ్ళు, జొన్నదంటు లేదా చొప్పబెండుతో చేసే రకరకాల విన్యాసాలే పంచతంతులు.

స్థంభనలు 7 రకాలు కన్పిస్తున్నాయి. జలస్థంభన, ఖద్గస్థంభన, రౌతుస్థంభన, జలస్థంభన, అగ్నిస్థంభన, మొగస్థంబన, వాయుస్థంభన అనేవి కన్పిస్తాయి.

పంచతంత్రాలు పగటివేష కళాకారుల హస్తలాఘవ ప్రదర్శనానైపుణ్యానికి ప్రతీకలైతే, స్తంభనలు వారిలో ధైర్య సాహసాలకు మారుపేరుగా నిలుస్తాయి.

ఈ దేవరపెట్టె వేషంలో ప్రదర్శించే ఇంద్రజాల ప్రదర్శనలన్నీ కనికట్టు, హస్తలాఘవ విద్యలే. వీరికి విరివిగా గారడీ చేయటం తెలుసు. వీరు ప్రజలను తమ మాటల మంత్రదండంతో కడుపుబ్బ నవ్విస్తూ అత్యంత వేగంగా విద్యలు ప్రదర్శిస్తున్నారు.

శ్రీకృష్ణదేవరాయల కాలం నుండే ఉన్నట్లుగా భావించబడే ఈ పగటి వేష కళాకారులు నేడు పొట్ట కూటికోసం అనేక ప్రాంతాలకు పలువెళ్ళారు. వీరి ప్రదర్శనలలో విశేషంగా చెప్పుకోదగ్గ ఇంద్రజాల ప్రదర్శనలు, తడిగుడ్డపై జొన్నలను పేలాలుగా మార్చటం, నెత్తిమీద పొయ్యి పెట్టి గారెలు వండటం, వ్యక్తిపై గుడ్డకప్పి అస్థి పంజరంగా మార్చటం, పాములు, తేళ్ళు, కప్పలను గాల్లో సృష్టించడం మొదలైనవి చేస్తూ ప్రజలకు వినోదంతోపాటు విజ్ఞాన్నానందిస్తున్నారు.

వోడిః

మోడి లేదా మౌళి అనే పేరుతో చేయబడే ఇంద్రజాల ప్రదర్శననే ఆంగ్లంలో రోప్ట్రిక్స్ అంటున్నారు. మోడినే కొంత మంది మౌళి అని, ఇంద్రజాలమని, హస్తలాఘవమని, గారడీ అని వ్యవహరిస్తున్నారు. ఈ మోడి ప్రస్తావన ప్రాచీన సాహిత్యాలలోను కన్నించడం చేత ఇది అతిప్రాచీనమైన ఇంద్రజాల ప్రదర్శనగా భావించవచ్చు.

మోడి ప్రస్తావన గూర్చి పాల్కూరికి సోమనాధుని రచనల్లోనూ, కొఱవి గోపరాజు రచనల్లోనూ, శ్రీనాధుని రచనల్లోనూ, అన్నమయ్య రచనల్లోనూ కన్నిస్తుంది.

మోడి ఇంద్రజాల ప్రదర్శనను పెద్దేటి గొల్లలు చేస్తున్నట్లు చారిత్రక ఆధారాల ద్వారా తెలుస్తుంది. ఈ కళా ప్రదర్శన నాలుగు రోడ్ల కూడలిలో, బడి లేదా గుడిలో, ఆరు బయట నలుగురు కూడే స్థలంలో వేదికగా ఏర్పాటై ప్రదర్శింపబడుతుంది. స్వాతంత్ర్యానంతరం మోడి కళాకారులు, హిందీ, ఉర్దూ భాషలతోపాటు తెలుగులో మాట్లాడుతూ ప్రదర్శనలు చేస్తున్నారు. ఈ కళను పగటిపూట మాత్రమేచేస్తారు. పురుషులు మాత్రమే పాల్గొనే ఈ కళలో పిల్లలు పెద్దలు ప్రదర్శనలుచేస్తారు. డోలక్, కంజిర, డమరకాన్ని వాద్యాలుగా ఉపయోగించుకుంటూ ప్రదర్శన నిర్వహిస్తారు.

ఈ ప్రదర్శనలో నలుగురు లేదా ఐదుగురు పాల్గొంటారు ప్రధాన ఆటగాడు తలకు పాగాచుట్టుకొని, నల్లని అంగవస్త్రం ధరించి మాటల చాతుర్యాన్ని ప్రదర్శిస్తుంటాడు. మిగిలిన వాళ్ళు సాధారణ వేషాలతో అతనికి వంతపాడుతూ, ఈ కొడుతూ ఆటను మొదలుపెడతారు. ఒక్కొక్కసారి ప్రధాన ఆటగాడికి ఎదురు ఆటగాడు మాత్రమే ఉండి వారిద్దరూ కలసి మోడిని నిర్వహిస్తారు. దీనిని రణమోడి అంటారు. రాజమోడి అనేది ప్రజలను రంజింపజేసే ఆటగా చెప్పవచ్చు.

మోడి ఇంద్రజాల ప్రదర్శన ఒక్కొక్కసారి శరీరాన్ని గగుర్పాటుకు గురిచేస్తుంది. ఎర్రగా కాలిన గుండును నోటితో తాకటం, ఇనుప కత్తిని మింగటం, కళ్ళు పీక్కోవటం వంటి భయంకర ప్రదర్శనలంటాయి. జాతర, సంత మొదలైన సందర్భాలలో సాధారణ ఇంద్రజాల ప్రదర్శనచేస్తారు. ఆ సమయంలో పాములను మాయం చేయటం, ఒక పెట్టెలోని పామును మరొక పెట్టె ద్వారా బయటకు రప్పించడం, రూపాయి బిళ్ళలను అనేక రూపాయి బిళ్ళలుగా మార్చటం, పట్టిని నీళ్లలో వేసి రక్తంగా మార్చడం వంటి ప్రదర్శనలు చేసి ప్రజలను ఆకట్టుకుంటారు. నేడు మోడి చేసే కళాకారులు చాలా అరుదుగా కన్నిస్తున్నారు.

విప్ర వినోదాలుః

బ్రాహ్మణులను ఆనందింపజేయటం కోసం ఏర్పడిన తెగ వారినే విప్ర వినోదులు అంటారు. వారు ప్రదర్శించే కళలే విప్ర వినోదాలు. విప్రవినోదులు ప్రసక్తి ప్రాచీన తెలుగు కావ్యాలలో కన్నిస్తుంది. ముఖ్యంగా విజయనగర రాజుల కాలంలో వీరి సంఖ్య అధికంగా ఉండేదని, వీరి గూర్చి కైఫీయతుండేవని వేటూరి ఆనందమూర్తి తెలియజేసారు.

విప్ర వినోద ప్రదర్శన అగ్రహారాలలో మాత్రమే జరుగుతాయి. ఇవి అరగంట లేదా గంటలోపు ప్రదర్శింపబడతాయి. వీరు షడ్విద్యలలో ప్రావీణ్యం కలవారని తెలుస్తుంది. ఆకర్షణం, స్తంభనం, మారణం, విద్వేషణం, ఉచ్చాటనం, మోహనం అనేవి షడ్విద్యలు. మంత్ర తంత్రాలలో ఎదుట వారిని లోబర్చుకుంటూ ఇంద్రజాల ప్రదర్శనలు చేస్తారు.

విప్ర వినోదులు ప్రదర్శనకు నాలుగు – ఎదురు బొంగుల మండపంలా పాతి తెరకట్టి మధ్యలో ఒక బల్ల ఉంచి ప్రదర్శనకు పూసుకుంటారు. ప్రధాన కథకుడి చేతిలో తాటాకు గ్రంథాలు ధరించి, భస్మరేఖలు ఒంటినిండా పూసుకొని వేద ఆశీర్వచనాలు పలుకుతూ మధ్యలో నవ్యం వాడుతూ అందరిని నవ్విస్తూ మంత్ర తంత్రాలు పఠిస్తాడు. ఒకడ తబలా లేదా మద్దెల హార్మొనీయం, తాళాలు, ఇతర వాయిద్యాలు వాయిస్తుండగా మరొకరు రకరకాల విన్యాసాలు చేస్తూ అగ్ని, జల, వాయు, స్తంభన విద్యలు ప్రదర్శిస్తుంటాడు. ఎదురుగా ఉన్న వస్తువులను మాయం చేయుట, చూస్తుండగానే అగ్నిని పుట్టించుట, నీళ్లను తెప్పించుట మొదలైన విద్యలు ప్రదర్శిస్తుంటారు.

సాధనాశూరులుః

సాధనాశూరులనే సాధసశూరులని గూడ అంటారు. వీరు యుద్ద కళను ప్రదర్శిస్తారు. వీరు ముఖ్యంగా పద్మశాలీల్ని వినోదింపజేస్తూ వారిని యాచిస్తూ జీవిస్తుంటారు. ఈ సాధనాశూరులు రెండు రకాలుగా కన్సిస్తారు. ఒకరు పట పురాణాన్ని గానం చేస్తూ సంచార జీవనం చేస్తుంటే మరొకరు జానపద ఇంద్రజాల ప్రదర్శనలిస్తూ జీవనం చేస్తుంటారు.

సాధనాశూరులు మాటలు కంటే చేష్టలకు ఎక్కువ ప్రాధాన్యత ఇస్తారు. వ్యాయమ విద్య, గారడీ, మహేంద్రజాలం, కనికట్టు, మంత్రశక్తి, అగ్ని, జల స్తంభనలు, అదృశ్యీకరణం వంటి ప్రదర్శనలు చేస్తూ ప్రజలను ఆకట్టుకుంటారు. ఈ నాటికి కూడ ఈ ప్రదర్శన కళ విరివిగా ప్రదర్శింపబడుతుంది.

సాధనాశూరల ప్రదర్శనలో ప్రేక్షకులు విసుగు చెందకుండా ఉండటానికి ఒక హాస్య పాత్ర కల్పించబడింది. హాస్యగాడు లోకాభిరామాయణం మాట్లాడుతూ ప్రదర్శనను రక్తి కట్టిస్తుంటాడు. ముందుగా యుద్ధ వీరులను తలపించేటట్లు ఉన్న కండలు పెంచిన యువకులు వచ్చి ప్రదర్శన చేస్తారు. పిల్లలు, ఆడవాళ్లు మధ్యమధ్యలో పిల్ల మొగ్గలు వేస్తూ, ఉరుకులు పరుగులతో కిందికి మీదికి దూకుతూ కన్నుల పండుగగా ప్రదర్శన నిర్వహిస్తారు. దీని తర్వాత ఇంద్రజాల ప్రదర్శన ప్రారంభమవుతుంది.

సాధనాశూరుల ఇంద్రజాల ప్రదర్శనలో విశేషంగా పేర్కొనదగింది అదృశీకరణం. ప్రదర్శనా స్థలంలో నూరు గజాలలో గొయ్యితవ్వి అందులో ఒక వ్యక్తిని పాతిపెట్టి 10 ని॥ల తర్వాత అతనిని పిలిస్తే అతడు ప్రజలను నెట్టుకుంటూ వారి మధ్య నుండి ప్రదర్శనకు చేరతాడు. ఇతడు ఎలా వచ్చాడని ప్రజల ఆశ్చర్యంతో కొట్టుమిట్టాడుతుంటారు. అదే విధంగా ఖాళీ చెక్క పెట్టిలో వ్యక్తిని బంధించి వస్త్రం కప్పి మూసివేస్తే అతడు జనంలో ప్రత్యక్షమవుతం అద్భుతమైన వింతగా గోచరిస్తుంది. నీళ్ళ బిందెలో మట్టిపోసి తడిమట్టి అని అందరికి చూపి కొద్దిసేపు తర్వాత పొడిమట్టి తీయుటం, చీపుర పుల్లలతో పల్లకీ చేసి వ్యక్తిని కూర్చి పెట్టి మోసుకు రావటం, మొదలైనవన్నీ చూసే వాళ్ళకి దిగ్భ్రాంతిని కలుగజేస్తాయి. వీరు తమ కళ్ళముందు ఈ వింతల్ని ఎలా చేస్తున్నారని ప్రజల ఆలోచించుకునేలోప కనికట్టు విద్యలు ప్రదర్శిస్తారు.

ఇంద్రజాల ప్రదర్శన కళలు – సామాజిక స్పృహః

ఒకప్పుడు ప్రజలను, రాజులను వినోదింపజేసిన కళారూపాలు మారుతున్న ప్రజల జీవన విధానానికి అనుగుణంగా మార్పులు చెందుతూ సమాజానికి మరింత దగ్గరై సమాజోద్ధరణకు, ప్రజాచైతన్యానికి తోడ్పడ్డాయి. ముఖ్యంగా స్వాతంత్రోద్యమ కాలంలో ప్రజలను ఏకతాటిపై నడపటానికి కళారూపాలే వారధులయ్యాయి. జానపద కళారూపాలు ఒక్కొక్కటి ఒక్కొక్క ప్రయోజనాన్ని ఆశించి ఏర్పడ్డ కళారూపాలే జానపద ఇంద్రజాల ప్రదర్శన కళలు కూడ అటువంటివే.

ఇంద్రజాల ప్రదర్శన కళలు సమాజంలో ప్రజలకు భయం, బాధ కల్గించే ప్రాణులపట్ల భయం లేకుండా చేయటానికి ప్రదర్శింపబడే కళలుగా భావించవచ్చు.సహజంగా గ్రామీణ ప్రజలు వ్యవసాయ పనులకు వెళ్ళే సమయంలో పాములు, తేళ్ళు, పలురకాల ప్రాణులపట్ల ఈతబాధలకు గురిఅవుతూ బెంబేలు పడుతుంటారు. వారిలో కలిగే భయాన్ని తొలగించడానికి ఈ కళా ప్రదర్శనలు చేస్తున్నట్లు కళలను ప్రదర్శించే కళాకారులు తెలియజేసారు. ఈ కళలు ఉదయం చీకటితో నిద్రలేచిన దగ్గర నుండి రాత్రి నిద్రపోయే వరకు కష్టపడుతూ ఉన్న ప్రజలను ఐకమత్యంవైపు నడిపిస్తూ, మూఢ నమ్మకాలు, విశ్వాసాలను పటాపంచలు చేస్తూ సామాజికచైతన్యాన్ని కలిగిస్తాయనటంలో ఎటువంటి సందేహం లేదు.

Conclusion (ముగింపు)ః

కొన్ని వందల ఏళ్ళుగా సామాన్య ప్రజలను సైతం రసిక హృదయ జనరంజకంగా అలరించగలిగిన ఈ జానపద ఇంద్రజాల ప్రదర్శన కళలు పట్టణీకరణ, ఆధునీకీకరణ జరుగుతున్న క్రమంలో అంతరించిపోతున్నాయి. ఒకప్పుడు వినోదాన్ని, విజ్ఞానాన్ని అందించి మానవ మనోవికాసానికి దోహదపడ్డ కళలు కనుమరుగయ్యే పరిస్థితి దాపురించింది. ఒకప్పుడు రాజాస్థానాలలో సముచిత స్థానంలో ఆదరింపబడిన కళారూపాలు తన కళాకాంతులు కోల్పోయి భిక్షాటన వృత్తికి తోడ్పడేకళలుగా పరిగణింపబడటం శోచనీయం. కాలక్రమంలో ఈ విధంగా కొనసాగితే మన సాంస్కృతిక వైవిధ్యానికి వారసత్వ సంపదకు మూలమైన కళలు మనుగడ ప్రశ్నార్థకంగా మారే ప్రమాదముంది. అందుకే ప్రభుత్వం, స్వచ్ఛంద సేవాసంస్థలు, విద్యాసంస్థలు, కళాభిమానులు, కళాపోషకులు తెలుగునేల నాలుగు చెరగులా ఈ కళలు ప్రదర్శింపబడటానికి తోడ్పడాలి. తద్వారా జానపద కళారూపాల అసలుసిసలైన జిలుగుసొగసును, జిగిబిగిని ప్రజలకు అందించి తెలుగునేలను కళలకాణాచిగా మార్చేందుకుతోడ్పాటును అందించే వారవుతారు.

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THE PROBLEM OF URBAN POVERTY IN INDIA

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A social phenomena in which a section of the society is unable to fulfil even its basic necessities of life, is considered to be poverty. Absolute poverty is a serious problem which prevails in all countries of the world. The relative poverty is an income distribution of the population in different fractional groups which is in comparison to the levels of the top 5 to 10 percent with the bottom 5 to 10 percent. Poverty is defined as inability to achieve the minimum requirements of life such as food, clothing, housing, health and efficiency due to very low income or insufficient assets. Thus poverty is seen as a state of absolute deprivation. It is defined in terms of a certain normative minimum level of living operationally measured by consumption expenditure that is necessary to ensure the minimum desirable level of living. All those who fail to secure income or assets to have access to even these minimum consumption requirements are classified as "poor".

If the people fail to have access to necessary income to even afford basic needs come under poverty line.It is a condition in which a person fails to maintain a living standard adequate for his physical and mental efficiency. The term poverty is a relative concept. It is difficult to draw a demarcation line between affluence and poverty. According to Adam Smith – Man is rich or poor according to the degree in which he can afford to enjoy the necessities, the conveniences and the amusements of human life.

Global Poverty and India

Global poverty estimates report the number of people living on less than $1 or $2 a day. But purchasing power parities suggest that it could that it could be more accurate to say that the poor in countries like India are living on less than $0.20 or $0.40 a day. The World Bank made first such an attempt started making international comparisons of poverty only about two decades ago. For reasons of convenience, it developed two notions of poverty. The US Treasury being the power behind the Institution, and the dollar being the reserve currency by design, the lower poverty line was set at $1a day per capita. Those below it were considered "the poorest of the poor".   The upper poverty line was set at $2 a day. Those living on$1-2 a day were still poor, but not worse off. The updated numbers, corrected for inflation, are $1.08 and $2.15. In many nations, the governments set income-based poverty lines too low. The income needed to avoid poverty is usually high in the larger and more prosperous cities.

Where there is little public provision for basic infrastructure and services, costs can be particularly high. Underestimates of the scale of urban poverty are particularly high when use is made of an income-based poverty line that makes no allowance for differences in living costs between countries- as in the World Bank's US $1 per person per day poverty line.

Poverty trends in India

In India, the incidence, the trends and determinants of poverty is based on household sample surveys conducted on a quinquennial basis by the National Sample Survey Organisation. Detailed data of the samples are available from early 1970s to the present at intervals of five years. The poverty lines based on household consumption expenditures, have been derived from age-sex-occupation –specific nutritional norms by using the all-India demographic data from the 1971 Census based explicitly

on estimates of the normative nutritional requirement of the average person in the rural and urban areas of the country separately (Sen. 2005).

Despite the high rates of economic growth that exceeded expectations and implementation of several poverty alleviation programmes by successive governments, India has the largest number of poor people in the world with 301.7 million of them in rural and 80.79 million in urban areas. The rise in population has also offset some gains in have been conducted by the NSS on a quinquennial basis since 1973-1974. Poverty measured in terms of head count ratio (HCR) declined from 54.9 per cent in 1973-74 to 27.5 per cent in 2004-05.

The pace of poverty reduction over the last decade has been much lower than anticipated. The decline in poverty was 12.4 percentage points over the decade, i.e., from 51.3 per cent in 1977-78 to 38.9 per cent in 1987-88 while the corresponding decline was only 8.5 percentage points over eleven years , i.e., from 36 per cent in 1993-94 to 27.5 per cent in 2004-05. Thus, income poverty in the country has declined over three decades by less than one million a year (planning Commission, 2006). The slowdown in the pace of poverty reduction may indicate relative difficulties in addressing hard core poverty, much of which is likely to be chronic in nature. (Mehta et al in Shepherd and Moore forthcoming; Bhide and Mehta 2008). The bulk of India's poor live in rural areas. But, the relative distribution of the poor between rural and urban areas declined from 81.33 percent in rural and 18.67 per cent in urban areas between 1973-74 and 2004-05.

Classification of poverty

Poverty has many dimensions changing from place to place and across time. There are two inter-related aspects of poverty- Rural and Urban poverty.

Rural Poverty in India

The causes of rural poverty are manifold including inadequate and ineffective implementation of anti-poverty programmes. The overdependence on monsoon with non-availability of irrigational facilities often results in crop-failure and low agricultural productivity forcing farmers in the debt-traps. Our economic development since Independence has been lopsided. There has been increase in unemployment creating poverty like situations for many.

The important reasons for country's poverty are as follows:

- Alarming population growth

- Lack of Investment

- Lower Literacy Rate

- Regional inequalities

- Failure of PDS system

Urban Poverty in India

India is stepping forward for becoming a country with more urbanized. Urban poverty is more due to impoverishment of rural poverty that forces them to move out of villages to seek some subsistence living in the towns and cities. In the process, they even lose the open space or habitat they had in villages albeit without food and other basic amenities.

The reasons behind urban poverty are as follows:

- Improper Training

- Growing population

- Slower job growth

- Failure of PDS system

Urban Poverty – Background:

India no longer lives in villages. At the turn of the millennium 305 million Indians lived in nearly 3,700 towns and cities spread across the length and breadth of the country. This comprises 30per cent of the population, in sharp contrast to only 60 million (15per cent) who lived in urban areas in 1947 when the country became independent. By 2050 over 50 per cent of the population is expected is expected to be in urban centres.

But urbanization has not come without its share of problems. This level of growth is creating heavy fault lines beneath the urban surface, most of which citizens have little control over.   As a young democracy, India has had little experience in urban issues. Our urban political and administrative leadership is unprepared to provide adequate governance even in the current situation, let alone in the chaotic future. Clearly, there are wrenching discontinuities at the grassroots. At the most basic level, there are questions about the ability of government to deliver the basic support services to ensure a decent quality of life for urban residents.

This problem is felt more acutely among the economically challenged sections of urban society who do not have access to minimum basic services in terms of water, sanitation, adequate dwellings, health, education, etc.

However, while all urban residents have suffered the consequences of a weak governance environment, it is the urban poor who have suffered the most. Afflicted by the combination of their own economic circumstances, poor access to basic services like education, healthcare, water and sanitation, housing and public distribution services, the poor have been caught in a vicious delivery vacuum. On the one hand, they are the victims of weak delivery systems in urban local governments; on the other hand, national pro-poor schemes have suffered from poor

design, often caught in the schizophrenia between addressing the issues of "urban spaces" versus "urban people".

This has been seen at many levels, from the Union government and even at the level of urban local governments. For instance, in the 2005-06 budget, plan funding for the urban areas was Rs 3500 crores, 2 per cent of the total Plan budget of Rs 145,000 crores. With an urban population of over 30 crores, this works out to around Rs 100 per capita. Specifically for the urban poor, Rs 1,000 crores are being spent on about 10 crore poor – again 100 per capita.

For rural areas, the plan spends comes to Rs 45,000 crores. There are others, excluding non-plan expenditures that also have a rural bias, like the Rs 26,000 crore food subsidy. The total rural population is 75 crores, so this works out to Rs600 per capita, six times the amount being spent for the urban citizen. For the rural poor alone, expenditures work out to Rs 1000 per capita, ten times the figure for the urban poor.

Urban poverty and Problems

Urban poverty was easily discernible through lack of security of land tenure, access to affordable shelter and basic amenities, health, education and social security. Urban poverty was linked to the aspects of social inclusion , city-wide infrastructure and basic service delivery systems, opportunities for skill development and employment, responsiveness of local government structures and policies and programmes impacting on urban environment, development impacting on urban environment, development and management.

The bulk of the urban poor are living in extremely deprived conditions with insufficient physical amenities like low-cost water supply, sanitation, sewerage, drainage, community centres and social services relating to health care, nutrition, pre-school and non-formal education, People in urban areas are homeless and slum households

are deprived of good housing, they do not have access to clean water, hygienic systems of waste disposal and, in general, they live in polluted and degraded environments not suited to human habitation.

Urban Poverty Alleviation Programmes

Urban Poverty alleviation is a challenging task before the nation which calls for imaginative new approaches. The goal is to adequately feed, educate, house and employ the large and rapidly growing number of impoverished city dwellers. The bulk of the urban poor are living in extremely deprived conditions with insufficient physical amenities like low-cost water supply, sanitation, sewerage, drainage, community centres, health care, nutrition, pre-school and non formal education. The need of the hour is to assist the urban poor by helping them to set up micro-enterprises thereby providing them avenues for enhancement or supplementation of their incomes. Another major area of assistance to the urban poor is provision of funds for housing or shelter up gradation.

The Ministry of Urban Development is monitoring the implementation o f three significant programmes related to urban poverty alleviation.

Nehru Rozgar Yojana (NRY)

To alleviate the conditions of urban poor, a Centrally Sponsored programme – Nehru Rozgar Yojana- was launched at the end of the Seventh Five Year Plan (October 1989) with the objective of providing of employment to the urban unemployed and under employed poor. The Central Government indicated its overall contribution while the essential task of identifying, earmarking and coordinating the relevant sectoral inputs was undertaken by the State Governments. The NRY consisted of three schemes namely (i) the scheme of Urban Micro Enterprises (SUME); (ii) the Scheme of Urban Wage Employment (SUWE) and (iii) the Scheme of Housing and Shelter Upgradation

(SHASU). During the Eighth Plan, 92 per cent of the available funds were utilised and but for the shortfall in the number of dwelling units upgraded \in progress under SHASU, the targets have been achieved under all the other schemes.

Urban Basic Services for the Poor (UBSP)

The UBSP Programme was implemented as a Centrally Sponsored Five Year Plan with the specific objectives of effective achievement of the social sector goals; community organisation, organisation, mobilisation and empowerment; and convergence through sustainable support system. The expenditure on the Programme was being shared on a 60:40 basis between the Central and the State Governments and UTs (with legislatures).

Prime Minister's Integrated Urban Poverty Eradication Programme (PM IUPEP):

Recognising the seriousness and complexity of urban povert y problems, especially in the small towns where the situation is more grave due to lack of resources for planning their environment and development, the PMIUPEP was launched in November, 1995. The PMIUPEP was a Rs.800 crore scheme approved for the period up to the year 2000. Programme was applicable to all Class II urban agglomerations with a population ranging between 50,000 and 1 lakh subject to the condition that elections to local bodies have been held.

The Swarna Jayanti Shahari Rozgar yojana (SJSRY):

In pursuance of the above recommendations, during the Ninth Plan it is proposed to launch the Swarna Jayanthi Shahari Rozgar Yojana (SJSRY) and phase out NRY, PMIUPEP and UBSP. The SJSRY is to be a Centrally Sponsored Scheme applicable to all the urban areas with expenditure to be shared in ratio 75:25 between the Centre and States\UTs. The programme has become operational on December 1,

1997. This programme would have two sub-schemes, namely, (i) Urban Employment programme and (ii) Urban Wage Employment Programme.

The Urban Wage Employment Programme (UWEP):

This programme seeks to provide wage employment to beneficiaries living below the poverty line within the jurisdiction of urban local bodies by utilising their labour for construction of socially and economically useful public assets.

The material-labour ratio for works under this programme will be maintained at 60:40.

Conclusion & Suggestions:

Poverty in India has been the focus in many debates and policies for decades.Most of this focus has been on rural poverty issues, but urban poverty being as prevalent as it is today, seeks equal attention. The biggest cities are growing faster than smaller towns. India's mega-cities have the highest percentage of slum-dwellers in the country. This indicates that as big cities grow even larger , their slums will swell. While slums have become an important place to reach the urban poor , even though the urban poor do not all live in slums. Our knowledge abou t the urban poor outside of slums is superficial. If there are as many urban poor living outside of slums as there are living in slums, the focus of poverty alleviation should differ considerably from those aiming mainly to upgrade slums and provide job training. Policy makers need to understand the phenomenon of urbanisation in relation to economic growth and migration to address issues arising out of the growth in cities.

Urban population and economic output tend to grow together. There is a proven relationship between urban growth and planned industrialisation. There is also a relationship between urban growth

and the economic output of India's states. India currently has a mainly rural population, but its population in urban areas is growing faster than in rural areas. It is predicted that nearly 50 per cent of India's population will be urban by the year 2030. India needs to develop a deeper understanding of urban poverty. Even today, popular opinion wrongly believes that urban poverty is caused solely by migrants from rural areas, who come to cities and cannot find work as easily as they had imagined. It is not surprising that since demographic and income data are incomplete , social data is even more scarce.

This may cause policy makers to treat urban poverty as a single problem. The urban poor should not be treated as a homogenous group. The urban poor could be classified into destitute households (living below the poverty line and requiring social security schemes) and families with marginal incomes and minimal skills (capable of ensuring self-employment with support from the government). Classification borne outnof a deeper understanding o f the context of urban poverty will result in programmes that are tailored to the specific needs of each group.

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शैक्षिकोपलब्धिः - तत्परीक्षणञ्च

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भारते प्रवर्तमानायां संस्कृतशिक्षणप्रणाल्यां संस्कृतं भाषात्वेन विषयत्वेन चाधीयते। राष्ट्रियनवशिक्षानीतेः त्रिभाषासूत्रमनुरुध्य विद्यालयधारायां संस्कृतमैच्छिकभाषात्वेनाधीयते। विश्वविद्या लयधारायान्तु संस्कृतशास्त्रादीन्य- धीयन्ते इति स्थितिः। तत्र पाठनमाध्यमं तु मातृभाषैव अवलोक्यते। कासुचित् संस्थासु काव्यशास्त्रादीनि संस्कृतभाषामाध्यमेनैव अध्याप्यन्ते।

संस्कृतशिक्षणे गुणवत्ताधानं भृशं विमृशता **संस्कृतायोगेन** उररीकृतं यत् **संस्कृतशिक्षणं संस्कृतमाध्यमेनैव भवेदिति।** केचन विद्वांसः मतमिदं निराकृत्य काव्यशास्त्राध्यापनं मातृभाषयैव भवेदिति उद्घोषयन्ति। मातृभाषामाध्यमेन पाठनेन गहनांशा अपि सौकर्येण आत्मसात्कर्तुं शक्यन्त इति तदीयं मतम्।

परं **संस्कृतमाध्यमेन पाठनेन** पदसम्पद्विकासः, उच्चारणसौष्ठवं, भाषाशैलीविकासः, भावाभिव्यक्तिक्षमता, भाषाविषयकानुकू लाभि वृत्तेः संवर्धनम् इत्यादयो **नैके लाभास्सन्तीति अनुभवैकवेद्यो विषयः। परमिदं शास्त्रीयीनुसन्धानपुरस्सरं निरूपणीयं स्यात्।**

तथैव संस्कृतशिक्षणे माध्यमत्वेन उपयुज्यमानयोः संस्कृतमातृभाषयोर्मध्ये कतरो माध्यमः संस्कृतच्छात्राणां

शैक्षिकोपलब्धिमानसिकयोग्यताभिवृत्तीनां   विकासमाधिक्येन करोतीति शास्त्रीयशोधपुरस्सरं निरूपणीयम्।

भारते संस्कृतच्छात्राणां शैक्षिकोपलब्धिमानसिक योग्यताभि वृत्तीनां विकासे शिक्षणमाध्यमभूतयोः संस्कृतमातृभाषयोः अथवा शिक्षणमाध्यमस्य प्रभावम्   अभिलक्ष्य प्रायः अनुसन्धानानि नानुष्ठितानि। अतः तत्र शास्त्रीयेण अनुसन्धानेन कतरः माध्यमः प्रभावं जनयतीति निरूपणाय **संस्कृतच्छात्राणां शैक्षिकोपलब्धि-मानसिकयोग्यताभिवृत्तीनां विकासे शिक्षणमाध्यमभूतयोः संस्कृत मातृभाषयोः प्रभावस्य तौलनिकमध्ययनम्** इति समस्या अध्ययनार्थं स्वीकृता।

शैक्षिकोपलब्धिः

सम्प्रति   शैक्षिकोपलब्धिस्तथा   शैक्षिकोपलब्धिपरीक्षाश्च यथाक्रमं निरूप्येते। उपलब्धिर्नाम – Achievement reflects the accomplishment of an individual. It is directly related to his performance इति Wrenn महाभागः परिभाषते।

पुनः अन्यः प्रमाणीकरोति यत् – Achievement is different from ability in that latter devotes only his power whereas the other tells about his performance इति। अर्थात् कस्मिंश्चिदपि अंशे सिद्धिः प्रगतिश्च उपलब्धित्वेन स्वीक्रियते। एषा सिद्धिः प्रगतिर्वा

तस्मिन्नंशे तद् व्यक्तेः समर्थतां सूचयति। एवमुपलब्धिर्नाम कार्येषु सिद्धिः प्रगतिर्वेति फलितम्।

छात्राणां शिक्षागता सिद्धिः प्रगतिर्वा शैक्षिकोपलब्धित्वेन अङ्गीक्रियते। शैक्षिकोपलब्धिर्नाम विद्यालये कक्ष्याशिक्षणे सम्पादिता शिक्षासम्बद्धा प्रगतिः। प्रगतिरियं शिक्षायास्तरमाधीरीकृत्य भवति। विद्यालयानाम् अध्यापकानाञ्च प्रमुखं लक्ष्यं भवति – छात्राणां शैक्षिकोपलब्धेः स्तरोन्नयनम्। वस्तुतः छात्रशिक्षणं शैक्षिकोपलब्धि प्रधानत्वेन स्वीकृत्यैव भवति। इत्थं शैक्षिकोपलब्धिः सा भवितुमर्हति यस्याः साहाय्येन बालकस्य सर्वाङ्गीणविकासः सौकर्येण भवतीति।

शैक्षिकोपलब्धिपरीक्षाः

मानवः स्वजीवने विभिन्नप्रकारकविषयाणां ज्ञानं, तत्कौशलानि च प्राप्नोति। तस्य ज्ञानस्य कौशलानां च योग्यतापरीक्षणम् उपलब्धिपरीक्षाभिः क्रियते। एवमेव विद्यालये विभिन्नकक्ष्यासु भिन्नप्रकारकच्छात्राः शिक्षाप्राप्तये प्रविशन्ति। तत्र समानमानसिकयोग्यतायाः अभावात् समानकालावधौ विभिन्नप्रकार कविषयेषु कौशलेषु च समानप्रगतिं प्राप्तुमसमर्थाः भवन्ति छात्राः। तस्याः प्रगत्याः अथवा उपलब्ध्याः मापनम् अथवा मूल्याङ्कनं कर्तुमेव उपलब्धिपरीक्षाः (Achievement or Attainment tests)

उपयुज्यन्ते। उपलब्धिपरीक्षाः विद्यालये बोध्यमानेषु विषयेषु प्राप्तमानकौशलेषु छात्राणां सफलतायाः मापनार्थं सहकृताः भवन्ति।

शैक्षिकोपलब्धिपरीक्षाणाम् उद्देश्यानि

साधारणतः विद्यालयेषु विभिन्नकक्ष्याछात्राणां ज्ञानपरीक्षणाय उपलब्धिपरीक्षाः सञ्चाल्यन्ते। तासामुद्देश्यानि तु –

1. छात्राणाम् उपलब्धिद्वारा छात्रस्तरनिर्धारणम्।

2. छात्राणां विषयेषु क्रियासु च वास्तविकस्थितेः अध्ययनम्।

3. छात्रैः अधीतविद्यालयीयविषयेषु तेषां ज्ञानस्य सीम्नः मापनम्।

4. छात्राणामध्ययनेन सह कौशलानां विकासस्यापि मापनम्।

5. छात्रेभ्यः ज्ञानस्य विभिन्नक्षेत्रेषु दीयमानप्रशिक्षणस्य परिणामानां मूल्याङ्कनम्।

6. पाठ्यक्रमस्य लक्ष्याणमुद्देश्यानां प्राप्तेः छात्राणां प्रगतेश्च अध्ययनम्।

7. छात्राणामधिगमकाठिन्यानामध्ययनं, तेषां निवारणार्थं पाठ्यक्रमे अपेक्षितपरिवर्तनानामध्ययनञ्च।

शैक्षिकोपलब्धिपरीक्षाणां प्रकाराः

उपलब्धिपरीक्षाः प्रमापितपरीक्षाः, शिक्षकनिर्मितपरीक्षाः इति रूपेण द्विधा। पुनः शिक्षकनिर्मितपरीक्षाः आत्मनिष्ठपरीक्षाः,

वस्तुनिष्ठपरीक्षाश्चेति द्विधा। पुनः आत्मनिष्ठपरीक्षाश्चापि मौखिकपरीक्षाः, निबन्धात्मकपरीक्षाश्चेति द्विधा इत्येवं उपलब्धिपरीक्षाः विभक्ताः भवन्ति। सम्प्रति एते उपलब्धिपरीक्षाः तालिकारूपेणाधो प्रदर्श्यन्ते –

1. **प्रमापितपरीक्षाः** (Standardized Tests)

2. **शिक्षकनिर्मितपरीक्षाः** (Teacher made Tests)

    क) **आत्मनिष्ठपरीक्षाः** (Subjective Tests)

        अ) **मौखिकपरीक्षाः** (Oral Tests)

        आ) **निबन्धात्मकपरीक्षाः** (Essay type Tests)

    ख) **वस्तुनिष्ठपरीक्षाः** (Objective Tests)

प्रमापितपरीक्षाः (Standardized Tests)

प्रमापितपरीक्षा आधुनिकी भवति। अस्याः विषये **Thorndike, Hagen** महोदयौ भणतः यत् – "प्रमापितपरीक्षा नाम सर्वैः छात्रैः समानानुदेशनेषु, समानपरिधौ च समानप्रश्नानाम् एवमेव अधिकसंख्याकप्रश्नानाञ्च उत्तरदानमिति"।

प्रमापितपरीक्षायाः (Standardized Tests) वैशिष्ट्यानि

1. एकेन विशेषज्ञेन विशेषज्ञसमूहेन वा निर्मिता भवति।

2. अस्याः निर्माणं, परीक्षानिर्माणनियमान् अनुसृत्य भवति।

3. विभिन्नकक्ष्याणां तथैव विभिन्नविषयाणां निमित्तं निर्मिता भवति। एकस्याः कक्ष्यायाः एकस्य विषयस्य वा निमित्तम् अनेकप्रकारकपरीक्षाः निर्मिताः भवन्ति।

4. यस्याः कक्ष्यायाः निमित्तं परीक्षेयं निर्मिता भवति, तस्याः एव कक्ष्यायाः विभिन्नस्थानकसहस्रशः छात्राणामुपरि प्रयुज्य परीक्षां निर्दिष्टाम् अथवा प्रमापितां च सम्पादयन्ति।

5. अत्र प्रदत्तप्रश्नाः निश्चितनिर्देशानुसारं निश्चितसमये समाधेयाः। अङ्कदानायापि निर्देशाः पूर्वमेव दत्ताः भवन्ति।

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शिक्षकनिर्मितपरीक्षाः (Teacher made Tests)

शिक्षकनिर्मितपरीक्षाः आत्मनिष्ठपरीक्षाः, वस्तुनिष्ठपरी क्षाश्चे ति द्विधा भवन्ति। सामान्यतया शिक्षकः सर्वेषां विषयाणामाधारेण परीक्षायाः निर्माणं करोति। भारते इदानीमपि शिक्षकनिर्मितपरीक्षाभिरेव उपलब्धिपरीक्षाः सञ्चाल्यन्ते। शिक्षकः

एव अस्याः निर्माणं करोति। परन्तु तत्र सर्वेषां शिक्षकाणां परीक्षानिर्माणयोग्यता समाना न भवति। तस्मादेव फलस्वरूपे, मूल्याङ्कने च द्वयोः परीक्षयोर्मध्ये भेदः दृश्यते।

एवम् उपलब्धिपरीक्षाः प्रमापितपरीक्षाः, शिक्षकनिर्मितपरीक्षाः इति रूपेण द्विधा भवन्ति।

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VIDEO AND FILM FOR DIAGNOSIS, EVALUATION AND ACQUISTION OF COMMUNICATIVE SKILLS BY UNDER GRADUATES.

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New challenge of the changing globe need new solutions. Unlike the bygone world when English was regarded as a link language the present world needs English as a commercial and resource tool to help one enter corporate career and international education and business. Teaching English through literary classics has become a practical burden and old methods and techniques hardly meet the requirements of corporate or higher education-oriented training. What is needed is a practical approach to the acquisition of varied communication skills and non-verbal communication skills. Hence the need for tools like video and film not only for acquisition of English language skills but also for diagnosis, discussion, evaluation of what is learnt. Contemporary films and videos shot in the classroom would be of much help in this regard.   This paper explores how best video and film could be used for better training of prospective corporate employees and overseas aspirants.

Before I proceed further I would like to tell you something of our college, wherein students belonging to socially and economically backward classes join and whose basic language skills are too weak to use advanced technologies, one of which is video and film, a powerful tool for English ambience. But for the principals of our college who are interested in upgrading the standards of the institution these tools are looked upon with cynicism and doubt.. With an intention of bringing the students to mainstream of competitive job market the college

principals have set up Campus Recruitment Center to train the students in English communicative skills and other job skills in order to prepare the later for the potential job market. Aside from this, the universities have already incorporated English Communication Component in the curriculum of undergraduate courses so that the students might benefit the campus recruitment. The present author in league with his colleagues employed different methods and techniques in Recruitment Center of the college including video and film, a tool, to expose, to motivate and to upgrade the students. Hollywood films such as Ten Commandments, My fair Lady, The Sound of Music and a few others are displayed whenever a student ought to be given a task or activity. Of course, before a task is given they are asked to enjoy the film to which some thematic introduction is given and they are allowed to watch it freely without any tasks whatsoever. Being not used to this type of tools, initially they have felt thrilled and later they got used to it accepting it as a necessary tool. They have fairly understood that without proper aural and visual media that they would not get the true feel of the English language and cultural ambience and nor would they be able face up to the situations that might arise without having witnessed the virtual world through video and film. And they have also recognized the fact that in order to integrate with the global village such tools as above are a necessary evil- I prefer to call it a necessary angel. With this backdrop for introduction of Video and film I would like to proceed further to apprise whether these have helped in achieving the objectives of diagnosis, evaluation and acquisition of communication skills.

Acquisition of communicative skills such as narration of the story, listening comprehension, learning of new words and phrases, group discussion on a clipping displayed and description of a scene has become successful by students after watching a video or film clipping. Before they watch the film, they are given an outline of the story. For

example, in ' The Sound of Music' how a former nun leaves a convent to become governess for seven children of a wealthy Austrian widower and how she opens the wonders of life and joy of music to them and finally wins their love 'is told and a brief introduction to other characters are given. Once this is done they are allowed to watch the movie that day at full- length, for the reason that they get immersed in it not bothering about the tasks that are to follow the next day. Some teachers discourage this and they say that this would not help. However, this went well with students who felt that they were transported into alien world of culture which yet belongs to the whole humanity. The next is followed by tasks on listening comprehension, vocabulary picking exercises, description of clippings in their own words etc. The students have recognized the fact that these extra feats are a value addition to their formal courses of training. During the course of their campus recruitment training video clippings from other movies and English TV news are displayed for the exposure of the students. However, all is not well with the students, especially those coming from purely mother tongue background.

Coming to the role of video or film shooting during course of campus recruitment training for diagnosis and evaluation of students one should say that this modern medium comes in handy for precise and objective diagnosis and evaluation of students. Tasks like role plays, group discussions and facing an interview are assigned to student after a through rehearsal before a video film shooting is done, and once the film or video is over they are subjected to diagnosis and evaluation. This film shooting exercise, though expensive and appears showy, has helped the faculty in finding out drawbacks of the students and making proper evaluation of their performance. In addition to this, video and film shots replayed to the students helped them better their performance in the next session.

At this juncture, it should be cautioned that video and film tools are only   high-tech tools to be sparely and judiciously used only after the faculty members are certain that the undergraduates are first given thorough training in four basic skills of the English language. However, while strengthening four basic skills using video and film as a teaching tool must not be underestimated if we wish to create an atmosphere of Englishness among undergraduates. The basic fact is that since the four basic skills have not been taught from the beginning without using video and film most of the students are deprived of English ambience, to which they ought to be exposed.

Finally, I consider this video and film a powerful tool that must be employed in training the prospective corporate employees and those in pursuit of higher education in a challenging global atmosphere. My experiment and experience with undergraduates vouch for it.

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THE UNTOUCHABLE WRETCHES – A CRITICAL EXPLORATION INTO DALIT SUBALTERNISM

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The Fourth World Literatures are phenomenally a vociferous voice of the indigenous peoples of the world. These literatures impetuously delineate the excruciating sufferings of these wretches across the world. Dalits in India, aborigines in Australia, Maoris in New Zealand, and Natives in America are the identified peoples who belong to the Fourth World. They are the endogenous 'originers' of their living territories, but they are the most neglected, marginalized, victimized and 'othered' communities of the world. The Fourth World Literatures represent and record the sufferings of these indigenous peoples.

Dalits, for ages, have been embroiled in 'untouchability' and have thus become 'Untouchables'. 'Untouchability' is a malady perpetrated by the brahaminized caste-ridden Hindu society against Dalits with an intent to hegemonize and weaken them thoroughly in order to sustain, consolidate and graduate their casteist powers eternally. This unethical prescript and practice has permanently left infirmities in the lives of Dalits. Their social and cultural life is disfigured. The religious and cultural taboos of Brahminism have deracinated the human dignity of Dalits. Dalits have become synonymous with the life of constant rejection, pain and suffering. Being at the bottom of Hindu society, they lead a life of poverty, persecution and hardship. The Manu's mandated doctrine of Varna system is let loose like opium that has putrefied the entire Indian society unalterably. The self-declared barbaric social and cultural

practices of Hinduism volleyed against Dalits were unequivocally opposed by the great social reformers, Mahatama Jyotibha Phule(1828-1890) and Dr.B.R.Ambedkar(1891-1956).

Against this virulent Brahiminical propagation of untouchability, and casteism inflicted against Dalits, these two social visionaries have led the Dalits on the path of a revolutionary metamorphosis thereby ushering in a united platform from where a new beginning for Dalits is envisioned. "Gulamgiri" of Phule which mainly focuses on caste, and "Annihilation of Caste" of Ambedkar which strongly articulates the elimination of caste have paved the way for the marginalized Dalits to fight against casteism.

Indian Literature, in general, contrary to Dalit Literature is mostly 'untouchable' toward 'Untouchables' in terms of taking up their issues and literize them comprehensively. It has willingly and overtly kept aside Dalits from being covered and highlighted. Thus, the brahminically influenced Indian mainstream literary think-tank certainly left a huge vacuum which otherwise would have been a measured justice. Though this void was to a very small extent fulfilled by a few upper caste individual mainstream litterateurs like, Premchand, Mulkraj Anand, Mahasweta Devi, et al. many of the narratives produced by such writers, according to Dalit writers, are part of a 'discourse of pity'.

The barb of untouchability is experienced by Dalits, and it is only they who could well describe what they have personally encountered. This unopposed truth is clearly understood by the Dalit writers. As such, being influenced by Babasaheb Ambedkar's revolutionary ideas against untouchability and Brahiminism, Dalits from right across various regional languages have begun producing literature in different genres which is known as Dalit Literature.

Dalit Literature undoubtedly finds its roots in Marathi, and Marathi Dalit Literature has replenished leaps and bounds over the years and has proved itself as an iconic discourse for following, evaluating and critiquing. Marathi Dalit Literature finds its impetus due to Jyothibha Phule, Prof.S.M.Mate(1886-1957) and Dr.B.R. Ambedkar. Their polemical works on casteism and untouchability have inspired several Dalits and through their writings, the Dalit Literary Movement started in Maharashtra. Dr. Ambedkar's revolutionary ideals inspired and initiated the creative minds of Dalits to enforce the socio-cultural upsurge for the total emancipation of Dalits. The contribution of Marathi Dalit writers in various literary genres has pricelessly been innovative and inspiring to other regional and national Dalit writers to produce their own works on Dalits and their sufferings. The plight of the Dalits thanks to discriminatory socio-cultural practices is vividly portrayed in the works of Marathi Dalit literature. The shocking reality of life is their weapon and it is realistically and graphically presented in their literary masterpieces. For instance, the stories, very much like a plethora of rich and thought-provoking verses and narratives, are an objective body forcefully conveying the 'differentness' of Dalit Literature. The language, experiences and heroes are exclusivised; the heroes of the Dalit works are shown struggling for survival at their different levels, and they are shown confronting limitation, abject poverty, misery and brutality.

"Gold from the Grave" written by Anna Bhau Sathe, and "The Refugee" written by Avinash Dolas are two such stories in Marathi Dalit Literature in which we find monumental plight of life of the protagonists. While "Gold from the Grave" depicts fierce battle for life in an urban slum, "The Rafugee" demonstrates the position of a Dalit in rural society fighting for existence.

Bheema, in 'Gold from the Grave', a definite disclaimable name for a Dalit seeing from the perspective of only the physical prowess rather than the socially attained strengths of life does resemble the Bheema of Mahabharatha in stature. He is the protagonist-victim of abject poverty granted by the wayward and discriminatory system of Indian caste apartheid. The fringed urban life dumps Bheema into an abysmal penury. A Dalit's life is never set for better, be his place a village or city. A city and a Dalit's life are a mismatch each other given the fact that the former is utterly soulless whereas the latter, here, especially in case of the protagonist's, a constant search for crumbs. But, on the other hand, a village, whose periphery is an untouchable shanty meant exclusively for Dalits, is no better either. The village disregardsBheema. The village overlooks his hope of existence for his being a Dalit. The caste monopolization of wealth, power and social life plunders and defaces the village social fabric by segregating it on the basis of caste and untouchability.

Thus, Dalits are 'fringed' – they are kept on the periphery and denied basic human and civil rights, deliberately being called 'untouchables'. An 'untouchable' Bheema leaves his village and in search of a job and goes to Bombay where after his few days of toiling, he finds no work. Bombay is not 'a city of joy' for Bheema. It is a hopeless place for him where he strays all over the city with a hope that he might win a bread winning sop in the life-giving, life-sustaining, life-killing, fleshless, bloodless and a skeletally empty Bombay. But, for a Dalit like him, a culturally and morally dilapidated Bombay where Dalit suppression and oppression are slyly invisible, where the insurmountable power centre rules the roost, where life is emptied of hope, sop and support, where only just for a few, as if they are naturally permanently privileged, 'life is beautiful', but for millions, it is hellish and where, for Dalits hailing from the country in search of life supporting twig, life is but suicidal – this Bombay ruthlessly throws

Beema out of it and drives him as far as to its suburbs. Bombay proves itself as an empty vessel; it is soulless; it does not melt. Bheema has thought of buying a gold necklace for his wife, but it has come to nothing. He hates Bombay because, it offers everything except work and shelter – everything what the life actually does not demand. The city, which is generally assumed to be civilized, sagacious, composite, secular and democratic is not ready to hug Bheema and give him a platform from where he might start a new beginning for his and his family life. When the poor Dalit is rejected by his village thanks to the caste-ridden carefully orchestrated imbroglio and when the heartless city rashes him and rejects him due to its uncanny behaviour just like his village, his nowhere-to-go destination ultimately lands him in the suburb of Bombay which smells partly town and partly village.

Bheema now settles in the suburb and lands a job as stone quarry worker. He feels the jungle had given him both gainful employment and a roof over his head. Dalits like Bheema have for ages been pushed animalistically and animositically pushed to the fringes of the villages and towns in the name of untouchability. Their life thus is sundered and their dreams are snapped. They look to be close to nature, on being forced by their fellow humans in the name of untouchability, but their being close to nature as well cannot lounge them in either physical or mental comfort. Dalits, according to Hindu scriptures are supposed to attend menial jobs; these scriptural edicts as are being propagated by Brahminism and Brahminical followers have successfully marginalized Dalit communities from becoming literate, and educated and to gain knowledges of the world.   It is all conspiratorial theory that if Dalits become literates, they would interrogate the reasoned authentication and justifiability of what Brahmins have argumentatively blinded the people by passing edicts of Vedas. Bheema would not be an illiterate should he be the victim of these suppressive, diracinatory teachings, and he would not be a stone

quarry worker. He loses his scant earning as he now loses the fleeting laborious job of stone breaker. 'What is to be done?' is how Beema gets confused when he learns that he has suddenly become jobless with the abrupt closure of the quarry. The thought of starvation plunges Bheema into the deepest pit of anxiety. Life for a Dalit in dearth of nothing is really hopeless and transitory. A hopelessly quagmired life is deli- berately sanctioned and slung at Dalits.   Life for Dalits is heartbroken and miserable.   An utterly falsified brahminzed socio-cultural practices have for centuries together shattered the precious life of Dalits and here in the story, Bheema is one of the prototype examples of how a Dalit becomes a direct victim of this whole network of cryptic conspiracy to hegemonize Dalits.   And this miserable life being experienced by Bheema is the camouflage of the result of suppressive system 'gobbelled' by Brahminism . Bheema fears nothing; he is not afraid of death but hugely worried about the starvation his family has to encounter in the circumstance of his being out of work and penniless. It is unclear to him what ensues next. As he plods back home with heavily drooping heart, he notices mounds of ashes and the remains of funeral pyres and charred bones scattered everywhere – it is a graveyard. Suddenly he notices a sparkling ring of gold on the top of the mound of ashes which weighs about twelve grams; he picks it and this finding opens a way for his survival and keeps the wolf at bay . Here the wolf is the sterility of his impoverishment; here the wolf is his pennilessness; here the wolf is his having nothing; here the wolf is his daughter's cry and his wife's sullenness; here the wolf is his undecidedness; here the wolf is his toiling for a job in Bombay; here the wolf is Bombay itself!

        Bheema begins his escapades routinely in the graveyard and sifts the mounds of funeral ashes in search of gold. He sells the gold and buys the needs for his family. He thus begins living by sifting the ashes of dead bodies. He is no different from some Dalit being an

undertaker. In fact, it is worse than that. It is his alternative to overcome his joblessness to survive. Who is responsible for all this – for Bheema being an exhumer in search of sustaining and perpetuating this hard-fought life? Is this how a Dalit has to suffer and live? Bheema cannot understand this paradox of life and death – the distinction between the two is lost on him. He knows there is gold in the ashes of a rich person and the ashes of a poor man do not contain a grain of the metal. This simple logic of his leads him to believe that only the rich should die to help the poor live in this world and that a poor man has no right to die. He solemnly declares to his friends that those leading a life of humiliation have no call to live or die. Day and night he searches cremation grounds and graveyards and like a ghoul, he lives on corpses and so his life is inextricably woven with corpses. He is excited by the news of the death and burial of a prominently wealthy man in the neighbouring village, and his imagination of visiting this dead body and exhuming it elates him. Bheema, as part of facing the constant struggle for survival demands him everyday to wait for dark. His wife expostulates with him to leave up this ghastly and disgusting job. She entreats him trying to enlighten on him not to wander like a fiend. She is frightened to death and whole thing gives her the creeps. She fails to convince her husband. The chauvinistic male comes out of Bheema; and he shoutingly rebuts his wife for he gets peevish; but he remains stubborn; he does not mind what others might say against what he is doing. "Who will feed us if I don't earn?" is his thought- provoking question. Ghosts, according to Bheema are not in the graveyards, they are in the human world. "This city of Bombay itself is a colony of ghosts. The real spectres live in houses and the dead ones rot in the graves. Monsters breed in the city, not in the jungles" Bheema concludes. Bheema is convinced for himself that this world is rotten and it is vice towards the downtrodden. There is neither puss nor blood in humans, no sympathetic feeling, no remorse. Bombay is such; this country is such. The majority live in villages; the

majority live in Bombay – a city. But, life of an underdog, be it in city or village, is totally tattered and defiled by the system – which is in the unsurmountable grip of caste system, sown and reaped by the Brahminical Order of justice. Thus, the life of millions of Dalits is beyond imagination and repairs.

In fact, as the life demands a better sop for comforts, it is the monetary status on which, the smooth running of a family sans many troubles, depends. Helplessly though responsibly, Bheema argues with his overawed wife saying, "When I broke stone the whole day, I received only a couple of rupees while a day's work on the funeral ashes fetches me a tenner". Bombay has not sympathized with him providing him a job, but the funeral of ashes has brought him gold. Bheema's gold search as usual begins and his manoeuvres in searching for a fresh and rich grave in the graveyard begins. In the pitch black, it is the frightening, lynching climate; gnashing, growling and scratching sounds; for the first time ever in his life, Bheema gets frightened and stopped dead, experiences dread and the fear of supernatural. He fights the jackals for the possession of carcass, his daily bread. A grim battle is fought in the vicinity of the village, a battle that will never be recorded in the annals of the country's mythology. The city of Bombay is asleep and the village at rest. The macabre war in the graveyard rages on and the man fights for the gold and the beasts for their food. Bheema, a Dalit of unfortune and a constant victim of suicidal poverty, now being on the unbelievably beastly job of exhuming in search of precious metal, an odd job which is inhuman, infradig and insulting to human dignity in a so called "civilized society", a society that intentionally neglects the stratified lower rung of the brahminical Varna system – fights the jackals for the possession of a carcass, his daily bread with all his strength accumulated perseveringly. Dalits, in general, are made mentally prepared to do mean jobs and they are left to self-sympathy and inferiority complex and are made to think for

themselves that it is their eternal fate which has landed them into such mean, meagre and docile life. In the fight with ferocious and competitive jackals, Bheema gets injured, yet wins the fight and successfully exhumes the body which bears some gold. He gets a gold ring in its mouth. To thoroughly search its mouth cavity, he inserts his left hand again, but while pulling the hand out, the jaws shut together with a snap and his fingers are caught in a vice-like grip. This grip is just like the upper-caste hegemonistic grip over Dalits for centuries which, even if a strong effort of the victims, is not done away with. And Bheema, with monumental endeavour pries the corpse's mouth open. He is immensely wounded – his fingers are crushed and broken under the crocodile-like teeth grip of the corpse. His severely injured fingers are amputated – he remains helpless and weeps like a child. It is an unavoidable compulsion for him to pick the job of exhuming which, though nasty, lands him in physical handicap. Bheema, for his irrevocable fate, cries like a child because he gets to know the stone quarry work will soon resume. While Bombay rejects Bheema, the stone quarry on the suburb gives him sop of life, and when the quarry abruptly closes, the carcasses in the graveyard show the way out as a remedy against starvation, but when the dead body crushes him to severe injuries and as a repercussion loses his fingers, his meagre prospective life becomes hopeless. This is how a Dalit faces a sequential turmoil in his life owing to a ramified and fractured social structure in which a carcinogenic caste system evidently plays a cryptically deracinatory role effectively and he is marginalized and subjected to a subjugated life.

While Bheema's life is embarrassingly so, Santu's life in the story, "The Refugee", written by Avinash Dolas is similar to that of an émigré and a fugitive in a foreign soil. The abject poverty, a lethal weapon which ruthlessly tests the poor and kills them puts Dalits in the villages to a 'to be or not to be' test which leaves them in the

undecidedness of their poverty stricken lives. Owing to their monumentally contemptible destitution, which is an everlastingly unrefuted consequence of the caste system, Dalits are plunged into illiteracy, innocence and servitude. The protagonist in the story, 'The Refugee', is fired by his parents and asked angrily to 'go away from here', from the village, just because of his quick temper!

The village which Gandhi is said to have described as where real India exists is paradoxically a perennial epicentre for steely and indelible roots of untouchability, casteism, savagery, barbarism, superstition, prejudice, oppression, suppression, arrogance, illiteracy, servitude, innocence, ignorance, etc. Casteism is the monstrously stigmatized system thrust on Indian society conspiratorially with a hegemonistic intension by the Brahminized Hindu religious Order. The same Order faked the society with the idea and practice of untouchability by which the Dalits are targeted, tortured and oppressed. Untouchability , according to brahminized Hindu society, is a legitimized practice eternally sanctioned by God. But, according to the same God/Scriptures (Which God and which scriptures?), all humans are equal in view of God! God's sanction of caste and untouchability, according to rationalism, is a mere myth and pretence. The Indian society as a whole has successfully been misguided and much to our disbelief and grief mired by the Hindu religious hierarchy in the quagmire of inhumanity and primitivism. Against this bestial practice of untouchability, as the Saviour of Dalits has fought resolutely, the twenty one year old young Dalit boy, Santu, in the story, 'The Refugee' fights firmly against the caste oppression in his village. A woman in his village draws water from the well of the high-caste which angers them. The high-caste people beat her up and order all Mahars to empty the well against which a young man like, Santu tries to break out of this casteism, but he cannot stand all that. Santu resists in furious reaction to which the entire upper caste people of the village

beat up the Mahars as they do their beasts. They stop giving them work, do not allow them water, food just because they are untouchables. They tell Santu to beg forgiveness, to grovel and prostrate himself before them, confessing his wrong doing. Or else, they threaten to burn the entire Mahar settlement. Just because they are untouchables! Santu strongly argues and protests – for his rights. Having been upset by her son's venture to face off with the upper-caste community of the village, and invited quarrel with them unnecessarily on some other's behalf, Santu's mother asks and demands her son to leave the house and go away from the village.

The elderly Dalits are habituated mentally not to be cross with the upper-caste people, and hence they try maximally to abstain from making any excesses with them fearing backlash from them. Dalit women also do not dare to hit back against gruesome acts perpetrated by upper-caste goons. The physical and mental atrocities on the Dalits in the name of their caste and untouchability are an everyday phenomenon in the villages and towns across India. This monumental aberration has no end in sight. Santu cannot digest the expulsion by his mother from the village. He does not like his mother's attitude. He seriously thinks about casteism and its repercussions. He catches a train bound for Bombay, after being in dilemma for some time as to where he must go. His hesitative but brief conversation with a passenger reveals that the passenger along with few others is from Bangladesh and they are refugees travelling from Bangladesh to Bombay as the Government of India gives shelter to them, and thousands and millions of the homeless as such since massacre is going on in their country. Santu is wondered and pities with himself thinking that he belongs to this country but he cannot find a place to live in. He is like a refugee in his own country. On the one hand there is Bangladesh in turmoil and on the other, the community of the

Mahar, in agony. Even after twenty years, he is homeless in his own country.

To conclude, the cartography of Dalit life and the index of eternalized Dalit grief and distress in a brahminical misguided Indian society - where the socio-religious-cultural trio are decomposed due to the deliberately misinterpreted ethos - are monumental.   Dalit Literature speaks volumes about Dalit nationalism and the stories evaluated above substantiate it and the Fourth World Literature.

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COMMUTATIVE RING THEORY

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Abstract:

In ring hypothesis, a branch of dynamic variable based math, a commutative ring is a ring in which the increase operation is commutative. The investigation of commutative rings is called commutative variable based math. Some particular sorts of commutative rings are given with the accompanying chain of class incorporations: Commutative rings ⊃ fundamental areas ⊃ essentially shut spaces ⊃ remarkable factorization spaces ⊃ chief perfect spaces ⊃ Euclidean areas ⊃ fields

Keywords: Commutative, Theory

Definition and first illustrations

Definition A ring is a set R outfitted with two parallel operations, i.e. operations that join any two components of the ring to a third. They are called expansion and duplication and normally meant by "+" and "·", e.g. a + b and a · b. To shape a ring these two operations need to fulfill various properties: the ring must be an abelian bunch under expansion and also a monoid under increase, such that duplication appropriates over expansion, i.e. a · (b + c) = (a · b) + (a · c). The personality components for expansion and augmentation are indicated 0 and 1, separately. On the off chance that, likewise, the duplication is additionally commutative, i.e. a · b = b · a, the ring R is called

commutative. In the rest of this article, all rings will be commutative, unless expressly expressed something else. [1]

In the first place illustrations An essential case, and in some sense vital, is the ring of whole numbers Z with the two operations of expansion and duplication. As the augmentation of numbers is a commutative operation, this is a commutative ring. It is typically signified Z as a contraction of the German word Zahlen (numbers). A field is a commutative ring where each non-zero component an is invertible, i.e. has a multiplicative backwards b such that a · b = 1. In this manner, by definition, any field is a commutative ring. The normal, genuine and complex numbers structure fields. The ring of 2-by-2 grids is not commutative, since network increase neglects to be commutative, as the accompanying case appears: which is not equivalent to However, lattices that can be diagonalized with the same closeness change do frame a commutative ring. An illustration is the arrangement of grids of partitioned contrasts concerning a settled arrangement of hubs. In the event that R is a given commutative ring, then the arrangement of all polynomials in the variable X whose coefficients are in R shapes the polynomial ring, meant R[X]. The same remains constant for a few variables. On the off chance that V is some topological space, for instance a subset of some Rn, genuine or complex-esteemed consistent capacities on V frame a commutative ring. The same is valid for differentiable or holomorphic capacities, when the two ideas are characterized, for example, for V an unpredictable complex.

Beliefs and the range rather than fields, where each nonzero component is multiplicatively invertible, the hypothesis of rings is more entangled. There are a few ideas to adapt to that circumstance. Initial, a component an of a R is known as a unit on the off chance that it has a

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[1] Balcerzyk, Stanisław; Józefiak, Tadeusz (1989), Commutative Noetherian and Krull rings, Ellis Horwood Series: Mathematics and its Applications, Chichester: Ellis Horwood Ltd., 1643-1776

multiplicative converse. Another specific sort of component is the zero divisors, i.e. a non-zero component a such that there exists a non-zero component b of the ring such that abdominal muscle = 0. On the off chance that R has no zero divisors, it is called an essential area since it nearly looks like the whole numbers in some ways. Large portions of the accompanying thoughts additionally exist for not as matter of course commutative rings, but rather the definitions and properties are typically more confused. For instance, all goals in a commutative ring are consequently two-sided, which improves the circumstance extensively.[2]

Beliefs and element rings The internal structure of a commutative ring is controlled by considering its standards, i.e. nonempty subsets that are shut under increase with discretionary ring components and expansion: for all r in R, i and j in I, both ri and i + j are required to be in I. Given any subset F = {fj}j ∈ J of R (where J is some list set), the perfect produced by F is the littlest perfect that contains F. Proportionally, it is given by limited direct mixes r1f1 + r2f2 + ... + rnfn. A perfect created by one component is called central perfect. A ring the majority of whose standards are central is known as a primary perfect ring, two essential cases are Z and k[X], the polynomial ring over a field k. Any ring has two goals, to be specific the zero perfect {0} and R, the entire ring. Any perfect that is not contained in any appropriate perfect (i.e. ≠R) is called maximal. A perfect m is maximal if and just if R/m is a field. Any ring has no less than one maximal perfect, an announcement taking after from Zorn's lemma, which is identical to the aphorism of decision. The meaning of standards is such that "partitioning" I "out" gives another ring, the variable ring R/I: it is the arrangement of cosets of I together with the operations (a + I) + (b + I) = (a + b) + I and (a + I)(b + I) = stomach muscle + I. For

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[2] Matsumura, Hideyuki (1989), Commutative Ring Theory, Cambridge Studies in Advanced Mathematics (2nd ed.), Cambridge University Press, 554-569

instance, the ring Z/nZ (likewise meant Zn), where n is a number, is the ring of whole numbers modulo n. It is the premise of secluded number juggling.

Confinements The restriction of a ring is the partner to consider rings seeing that a component ring R/I certain components (specifically the components of I) get to be zero, though in the limitation certain components are rendered invertible, i.e. multiplicative inverses are added to the ring. Solidly, if S is a multiplicatively shut subset of R (i.e. at whatever point s, t ∈ S then so is st) then the confinement of R at S, or ring of parts with denominators in S, ordinarily signified S−1R comprises of images with r ∈ R, s ∈ S subject to specific decides that mimick the cancelation commonplace from levelheaded numbers. In fact, in this dialect Q is the confinement of Z at all nonzero numbers. This development works for any necessary space R rather than Z.[3] The restriction (R \ {0})−1R is known as the remainder field of R. In the event that S comprises of the forces of one altered component f, the localisation is composed Rf.

Prime beliefs and the range An especially critical kind of standards are prime goals, frequently meant p. This thought emerged when algebraists (in the nineteenth century) understood that, dissimilar to in Z, in numerous rings there is no special factorization into prime numbers. (Rings where it holds are called remarkable factorization spaces.) By definition, a prime perfect is a legitimate perfect such that, at whatever point the item stomach muscle of any two ring components an and b is in p, no less than one of the two components is as of now in p. (The inverse conclusion holds for any perfect, by definition). Comparably, the component ring R/p is a fundamental area. However another method for communicating the same is to say that the

[3] Eisenbud, David (1995), Commutative algebra. With a view toward algebraic geometry., Graduate Texts in Mathematics, 150, Berlin, New York: Springer-Verlag,9845-9856

supplement R \ p is multiplicatively shut. The localisation (R \ p)−1R is sufficiently vital to have its own documentation: Rp. This ring has stand out maximal perfect, in particular pRp. Such rings are called nearby. By the over, any maximal perfect is prime. Demonstrating that a perfect is prime, or identically that a ring has no zero-divisors can be exceptionally troublesome.

The range of Z.

Prime beliefs are the key stride in deciphering a ring geometrically, through the range of a ring Spec R: it is the arrangement of every single prime perfect of R.[4] As noted above, there is no less than one prime perfect, accordingly the range is nonempty. On the off chance that R is a field, the main prime perfect is the zero perfect, consequently the range is only one point. The range of Z, be that as it may, contains one point for the zero perfect, and a point for any prime number p (which produces the prime perfect pZ). The range is enriched with a topology called the Zariski topology, which is controlled by determining that subsets D(f) = {p ∈ Spec R, f ∉ p}, where f is any ring component, be open. This topology has a tendency to be unique in relation to those experienced in investigation or differential geometry; for instance, there will for the most part be focuses which are not shut. The conclusion of the point comparing to the zero perfect 0 ⊂ Z, for instance, is the entire range of Z. The idea of a range is the basic premise of commutative polynomial math and mathematical geometry. Arithmetical geometry continues by investing Spec R with a pile (an element that gathers capacities characterized locally, i.e. on fluctuating open subsets). The datum of the space and the parcel is called a relative plan. Given a relative plan, the basic ring R can be recuperated as the worldwide areas of . Additionally, the built up coordinated

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[4] Kaplansky, Irving (1974), Commutative rings (Revised ed.), University of Chicago Press, 098-105

correspondence amongst rings and relative plans is likewise good with ring homomorphisms: any f : R → S offers ascend to a constant guide the other way Spec S → Spec R, q ↦ f−1(q), i.e. any prime perfect of S is mapped to its preimage under f, which is a prime perfect of R. The range likewise makes exact the instinct that localisation and variable rings are integral: the characteristic maps R → Rf and R → R/fR compare, subsequent to investing the spectra of the rings being referred to with their Zariski topology, to reciprocal open and shut inundations individually. Through and through the equality of the two said classifications is exceptionally able to reflect logarithmic properties of rings in a geometrical way. Relative plans are–much the same path as manifolds are privately given by open subsets of Rn–local models for plans, which are the object of study in mathematical geometry. Consequently, numerous thoughts that apply to rings and homomorphisms stem from geometric instinct.

Ring homomorphisms As regular in variable based math, a capacity f between two protests that regards the structures of the items being referred to is called homomorphism. On account of rings, a ring homomorphism is a guide f : R → S such that f(a + b) = f(a) + f(b), f(ab) = f(a)f(b) and f(1) = 1. These conditions guarantee f(0) = 0, yet the prerequisite that the multiplicative character component 1 is safeguarded under f would not take after from the two remaining properties. In such a circumstance S is additionally called a R-polynomial math[5], by understanding that s in S might be duplicated by some r of R, by setting r · s := f(r) · s. The part and picture of f are characterized by ker (f) = {r ∈ R, f(r) = 0} and im (f) = f(R) = {f(r), r ∈ R}. Both piece and picture are subrings of R and S, separately.

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[5] Jacobson, Nathan (1945), "Structure theory of algebraic algebras of bounded degree", Annals of Mathematics 46 (4): 584–694,

Modules The external structure of a commutative ring is dictated by considering direct polynomial math over that ring, i.e., by researching the hypothesis of its modules, which are like vector spaces, with the exception of that the base is not as a matter of course a field, but rather can be any ring R. The hypothesis of R-modules is altogether more troublesome than straight variable based math of vector spaces. Module hypothesis needs to think about challenges, for example, modules not having bases, that the rank of a free module (i.e. the simple of the measurement of vector spaces) may not be very much characterized and that submodules of limitedly created modules need not be limitedly produced (unless R is Noetherian, see beneath). Goals inside a ring R can be described as R-modules which are submodules of R. From one viewpoint, a great comprehension of R-modules requires enough data about R. The other way around, be that as it may, numerous methods in commutative polynomial math that study the structure of R, by analyzing its goals, continue by examining modules all in all.

Noetherian rings A ring is called Noetherian (to pay tribute to Emmy Noether, who built up this idea) if each rising chain of beliefs $0 \subseteq I0 \subseteq I1 \ldots \subseteq In \subseteq In + 1 \subseteq \ldots$ gets to be stationary, i.e. gets to be consistent past some file n. Proportionately, any perfect is produced by limitedly numerous components, or, yet equal, submodules of limitedly created modules are limitedly created. A ring is called Artinian (after Emil Artin), if each dropping chain of beliefs $R \supseteq I0 \supseteq I1 \ldots \supseteq In \supseteq In + 1 \supseteq \ldots$ gets to be stationary in the long run. Regardless of the two conditions seeming symmetric, Noetherian rings are a great deal more broad than Artinian rings. For instance, Z is Noetherian, since each perfect can be created by one component, however is not Artinian, as the chain $Z \supsetneq 2Z \supsetneq 4Z \supsetneq 8Z \supsetneq \ldots$ appears. Truth be told, each Artinian ring is Noetherian. Being Noetherian is a critical limit condition. The condition is safeguarded under numerous operations that happen habitually in geometry: if R is Noetherian, then so is the polynomial

ring R[X1, X2, ..., Xn] (by Hilbert's premise hypothesis), any confinement $S-1R$, element rings R/I.

Measurement The Krull measurement (or just measurement) faint R of a ring R is a thought to gauge the "size" of a ring, generally by the including free components R. Correctly, it is characterized as the supremum of lengths n of chains of prime goals $0 \subseteq p0 \subseteq p1 \subseteq ... \subseteq pn$. For instance, a field is zero-dimensional, since the main prime perfect is the zero perfect. It is additionally realized that a commutative ring is Artinian if and just on the off chance that it is Noetherian and zero-dimensional (i.e., all its prime beliefs are maximal). The whole numbers are one-dimensional: any chain of prime beliefs is of the structure $0 = p0 \subseteq pZ = p1$, where p is a prime number following any perfect in Z is vital[6]. The measurement acts well if the rings being referred to are Noetherian: the normal balance faint $R[X] = $ faint $R + 1$ holds for this situation (when all is said in done, one has just diminish $R + 1 \leq$ faint $R[X] \leq 2 \cdot$ faint $R + 1$). Moreover, since the measurement depends just on one maximal chain, the measurement of R is the supremum of all measurements of its localisations Rp, where p is a discretionary prime perfect. Instinctively, the measurement of R is a neighborhood property of the range of R. In this way, the measurement is regularly considered for nearby rings just, additionally since general Noetherian rings may in any case be boundless, regardless of every one of their localisations being limited dimensional. Deciding the measurement of, say, k[X1, X2, ..., Xn]/(f1, f2, ..., fm), where k is a field and the fi are a few polynomials in n variables, is by and large difficult. For R Noetherian, the measurement of R/I is, by Krull's chief perfect hypothesis, in any event faint $R - n$, on the off chance that I is created by n components. On the off chance that the measurement does drops however much as could be expected, i.e. faint $R/I = $ faint $R - n$, the R/I is known as a complete

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[6] Atiyah, Michael; Macdonald, I. G. (1969), Introduction to commutative algebra, Addison-Wesley Publishing Co,56-64

crossing point. A neighborhood ring R, i.e. one with one and only maximal perfect m, is called standard, if the (Krull) measurement of R equivalents the measurement (as a vector space over the field R/m) of the cotangent space m/m2.

Building commutative rings There are a few approaches to develop new rings out of given ones. The point of such developments is regularly to enhance certain properties of the ring in order to make it all the more promptly reasonable. For instance, an essential space that is necessarily shut in its field of parts is called ordinary. This is an attractive property, for instance any typical one-dimensional ring is fundamentally consistent. Rendering a ring typical is known as standardization. [7]

Fruitions If I is a perfect in a commutative ring R, the forces of I shape topological neighborhoods of 0 which permit R to be seen as a topological ring. This topology is known as the I-adic topology. R can then be finished as for this topology. Formally, the I-adic finish is the converse furthest reaches of the rings R/In. For instance, if k is a field, k[[X]], the formal force arrangement ring in one variable over k, is the I-adic culmination of k[X] where I is the main perfect created by X. Similarly, the ring of p-adic whole numbers is the I-adic fruition of Z where I is the key perfect produced by p. Any ring that is isomorphic to its own particular fruition, is called finished.

History of Theory Invention:

The commutative ring hypothesis is vital as an establishment for mathematical geometry and complex logical geometry. To begin with a verifiable overview of its advancement.

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[7] Zariski, Oscar; Samuel, Pierre (1975), Commutative algebra, Graduate Texts in Mathematics, 28, 29, Berlin, New York: Springer-Verlag,235-248

The most fundamental commutative rings are the ring Z of levelheaded whole numbers, and the polynomial rings over a field. "Z" is a main perfect ring ,as is excessively straightforward, making it impossible to ring hypothetically extremely fascinating. [8]

Dedekind initially presented the thought of a perfect in the 1870's.For it was understood that exclusive when prime beliefs are utilized as a part of spot of prime numbers do we get the normal speculation of the number hypothesis of Z.

In 1890's Hilbert demonstrated that beliefs in polynomial rings are finetly generated,as well as other crucial hypotheses. after that profound analysts of Lasker and Macaulay on essential deterioration of polynomial ideals.A Forerunner of the conceptual treatment of commutative ring hypothesis was the Japanese Shozo Sono(1917) specifically he succeeded in giving a proverbial portrayal of Dedekind rings.

Later Noether found that essential decay of standards is a result of the climbing chain condition(1921) and gave an alternate arrangement of sayings for Dedekind rings(1927) in work which was to impact the heading of ensuing improvement of commutative ring hypothesis. The focal position involved by Noetherian rings in commutative ring hypothesis got to be obvious from her work.The commitment of Akizuki in 1930s was likewise extensive; specifically, a counter-illustration, which he acquired after a ycar's hard battle, of a vital area whose basic conclusion is not limited as a module was to wind up the model for some resulting counter-cases.

In the 1940s Krull's hypothesis was connected to logarithmic geometry by Chevalley and Zariski, with surprising achievement. Zatiski connected general valuation hypothesis to the determination of

[8] Atiyah, Michael; Macdonald, I. G. (1969), Introduction to commutative algebra, Addison-Wesley Publishing Co, 765-785

singularities and the hypothesis of birational changes, and utilized the idea of customary neighborhood ring to give a mathematical definition of the hypothesis of straightforward (non-particular) purpose of an assortment. Chevalley started the hypothesis of multiplicities of nearby rings, and connected it to the calculation of crossing point multiplicities of assortments. The 1950s opened with the significant work of Zariski on the issue of whether the culmination of an ordinary neighborhood ring stays typical (Sur la normalité analytique des variétés normales, Ann. Inst. Fourier 1 (1950)), taking Noctherian ring hypothesis from general hypothesis more profound into exact structure hypotheses.

In the 1960s commutative ring hypothesis was to get another two vital endowments from mathematical geometry.[9] Hironaka's extraordinary work on the determination of singularities contained a to a great degree unique bit of work inside the perfect hypothesis of nearby rings, the ring-hypothetical criticalness of which is progressively being caught on. The hypothesis on determination of singularities has itself as of late been uscd by Rotthaus in the study ot fabulous rings.

In the 1960s commutative ring hypothesis was to get another two critical endowments from logarithmic geometry. Hironaka's incredible work on the determination of singularities (13 contained a greatly unique bit of work inside t$c perfect hypothesis of nearby rings, the ring-hypothetical essentialness of which is step by step being caught on. The hypothesis on rcsolution of singularities has itself as of late been uscd by Rotthaus in the study ot great rings. Furthermore, in 1969 M. Artin demonstrated his acclaimed approxim-ation hypothesis; generally, this expresses ifa arrangement of synchronous arithmetical conditions ovcr a Hensel neighborhood ting A has an answer in the culmination d, then there exist self-assertively close arrangements in

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[9] Balcerzyk, Stanisław; Józefiak, Tadeusz (1989), Dimension, multiplicity and homological methods, Ellis Horwood Series: Mathematics and its Applications., Chichester: Ellis Horwood Ltd,23-34

An itself. This hypothesis has a wide assortment of uses both in mathematical geometry and in ting hypothesis. Another homology hypothesis of commutative rings constructcd by M. André and Quillen is a further vital accomplishment of the 1960s. [10]

To give the three top hypotheses of commutative ring hypothesis all together of significance, I have very little uncertainty that Krull's measurement hypothesis has pride of spot. Next maybe is I.S. Cohen's structure hypothesis for complete nearby rings . The way that a complete neighborhood ring can be communicated as a remainder of a surely knew ring, the formal force arrangement ring over a field or a discrete valuation ring, is something to feel greatly appreciative for. As a third, I would give Serre's characterisation of a normal nearby ring; this grips the esscnce of consistent neighborhood rings, and is additionally an essential meeting-purpose of perfect hypothesis and homological polynomial math.

Commutative rings and modules

1. This subject bases on the topic of the presence of prime goals. In 2. we treat Nakayama's lemma, modules over neighborhood rings and modules of limited presentation; we give a complete confirmation, taking after Kaplansky, of the way that a projective module over a nearby ring is free, in spite of the fact that, since we won't make any resulting utilization of this in the unendingly produced case, the peruser may ignore it. In 3.we give an itemized treatment of limit conditions as Emmy Noether's chain condition, talking about in addition to other things Akizuki's hypothesis, I.S. Cohen's hypothesis and Formanek's verification of the Eakin—Nagata hypothesis.

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[10] Pinter-Lucke, James (2007), "Commutativity conditions for rings: 1950–2005", Expositiones Mathematicae 25 (2): 165–174

Beliefs

On the off chance that A will be a ring atid I a perfect of An, it is regularly critical to consider the buildup class ring An/I. Set = An/I, and compose f: A→ for the regular guide; then beliefs of and goals J = f - 1 (J) of A containing I are in balanced correspondence, with = J/I and A/J/. Consequently, when we simply need to consider beliefs of A containing J, it is helpful to move regard for An/I. (on the off chance that I' is any perfect of A then f(I') 'is a perfect of , [11]

With f- - 1(f(I')) = I+I' and f(I') = (I + I')/I

An is itself a perfect of A, frequently composed (1) since it is created by the character component 1. A perfect particular from (1) is known as a legitimate perfect. A component a €A which has a reverse in A (that is, for which there exists a' €A with aa'= 1) is known as a unit of A.

In a ring A we are permitted to have 1=0, yet in the event that this happens then it takes after that a =1.a=0.a=0 for each a € A. In definitions and hypotheses about it might now and again happen that the condition d 4 0 is discarded notwithstanding when it is really fundamental. A ring A will be an area (or basically a space) if A/0, and if A has no zero-divisors other than 0. On the off chance that An is a basic area and each nor-zero component of A will be a unit then A will be a field. A field is portrayed by the way that it is a ring having precisely two goals (0) and (I).

A perfect which is maximal among every appropriate perfect is known as a maximal personality ; a perfect in of An is maximal if and just if A/m is a field. Given a legitimate perfect I, let M and the arrangement of standards containing I' and not containing 1, requested by consideration; then Zorn's lemma can be connected to NJ. To be sure,

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[11] Nagata, Masayoshi (1962), Local rings, Interscience Tracts in Pure and Applied Mathematics, 13, Interscience Publishers, pp. xiii+346,

IcM zo that M is non-vacant, and if L ‹= M is u completely requested subset then the union of the considerable number of beliefs having a place with Lis ar perfect of An and clearly has a place with M, so is the slightest upper bound of L in if. Therefore by Zorn's lemma M has a maximal component. This demonstrates the accompanying hypothesis.

Hypothesis 1.1. In the event that f is a legitimate perfect then there exist no less than one maximal perfect containing I

A perfect P of A for which A/P is a vital area is known as a prime perfect. As it were, I' is prime in the event that it fulfills

(i) $P \neq A$ and   (ii) x,y does no have a place with P infers that for x,y$\in$A

A field is an essential area, so that a maximal perfect is prime.

On the off chance that I and I are standards and f' a prime perfect, then[12]

In fact, taking x €I and y €J with x,y does not have a place with P'

A subset S of An is multiplicative in the event that it fulfills

(i) x, y €S , and (ii) 1 €5;

(here condition (ii) is not vital: given a subset S fulfilling (i), there will generally not be any fundamental change on supplanting S by S U ({1}). On the off chance that i is a perfect disjoint from S, then precisely as in the evidence of Theorem 1 we see that the arrangement of beliefs containing I and disjoint from S has a maximal component. On the off chance that P is a perfect which is maximal among beliefs disjoint from S then P is prime. For if x does not have a place with P, Off', then since (P + Xa) and (P + Ya) .

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[12] Balcerzyk, Stanisław; Józefiak, Tadeusz (1989), Commutative Noetherian and Krull rings, Ellis Horwood Series: Mathematics and its Applications, Chichester: Ellis Horwood Ltd.847-858

Hypothesis 2.

Give S a chance to be a multiplicative set and I a perfect disjoint from S; then there exists a prime perfect containing 4' and disjoint from S Then there exists a prime perfect containing I and disjoint from

Specifically on the off chance that we take f - (0) then (0) is the arrangement of every nilpotent component of d, and is known as the iiilrndicof of A, we will compose nil(A) for this. At that point nil(A) is convergence of all the prime standards of A. Whenever nil(d) = 0 we say that d is decreased. For any ring I we compose d„ for A/nil(AJ; A„ is or course lessened.

The crossing point of every single maximal perfect of a ring d(4 0) is known as the

Jacobson radical, or basically the radical of d, and composed rad(A). In the event that x €rad(A) then for any a €A. 1 + ‹i;x is a component of A not contained in any maximal perfect, and is along these lines a unit of d by Theorem 1.

EXPERIMENTAL STUDY ON STRUCTURAL BEHAVIOUR OF LIGHT WEIGHT CONCRETE USING LECA

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ABSTRACT

This study examined the structural behaviour of light-weight concrete (LWAC) made with lightweight aggregates (Light expanded clay aggregates LECA) and normal weight aggregates with the aim to investigate the effect of partial replacement of the normal weight aggregates. The paper concentrated on performance parameters such as compressive strength, splitting tensile strength, flexural strength and unit weight. The LWAC was compared to normal aggregate concrete. The good results obtained for this type of LWAC relative to normal weight concrete, there is no certain mix proportion that can be generally used, as is the case for normal weight concrete, and more studies are still needed to ensure its optimal proportions.

Key words: Light Expanded Clay Aggregate (LECA), Light-weight concrete, Strength, Density, Structural behaviour.

1. INTRODUCTION

Light-weight concrete can be defined as a type of concrete which includes an expanding agent in that it increases the volume of the mixture while giving additional qualities like lessened the dead weight. It's lighter than the conventional concrete [1]. The required properties of the light-weight concrete will have a bearing on the best type of light Expanded Clay Aggregate to use. The Structural light weight concrete as we call is a concrete whose density varies from 1400 to 2000 kg/m$^{3[2]}$.The literatures have thrown a light on influence of palm oil

clinker, coconut shell, ceramic waste, Light expanded clay aggregate concrete to reduce the density of structural concrete member[3]. It reduces the weight of concrete and cost of concrete by reducing the aggregate cost and produces economic infrastructure system [4]. Light-weight concrete cubes, cylinders and beams are casted and tested for determining compressive strength, split tensile strength, flexural strength and young's modulus and obtain the results are compared with the control specimens.

1.1 Literature Review

Light Expanded Clay Aggregate (LECA) was used as a part of fine aggregate for improving mechanical properties of porous asphalt. To conduct the experiment in this research, three different mixtures of stone material and LECA (0, 10 and 20 percent LECA) were used. The results of moisture susceptibility tests demonstrated that adding LECA to porous asphalt mixture can increase resistance against moisture damage in this mixture, Mahyar Arabani ,et-al [6]. The effect of using fly ash in high strength lightweight aggregate concrete produced with expanded clay aggregate on physical and mechanical properties of the concrete was investigated and in order to determine the effect of use of fly ash in expanded clay aggregated concretes on bond strength, lightweight concrete mixtures of 350, 400, 450kg/m^3 cement content and of 0, 10, 20 and 30% fly ash replacement were prepared, Serkan Suba[1][10]. The expanded perlite aggregate (EPA) has a wide range of uses, generally due to its properties of extremely low bulk density, high brightness, high absorption, low thermal and acoustical conductivity, and non-flammability and the test results indicated a linear relationship between the compressive strength and splitting-tensile strength for steel fibrous V.Khonsari, E.Eslami & Ah.Anvari,[7]. Experimental investigation on concrete mix M20 is done by replacement of cement with fly ash, fine aggregate with bottom ash and coarse aggregate with Light Expanded Clay Aggregate (LECA) at the

rate of 5%, 10%, 15%, 20%, 25%, 30% and 35% and The results shows that 5% replacement of cement with fly ash, fine aggregate with bottom ash and coarse aggregate with Light Expanded Clay Aggregate (LECA) was found to be good performance in compressive strength, Sivakumar[1] and B.Kameshwari[2] [16]. This paper investigates the mechanical properties of light weight Geopolymer concrete produced by replacing normal coarse aggregate by Light weight expanded clay aggregates (LECA). Structural use was although limited to 60% replacement of coarse aggregate by LECA with a density of 1700kg/m3. On replacement of coarse aggregate by LECA by 40%, both split tensile strength and flexural strength decreased by about 35%, but still very much within structural limits, Sachin Paul[1] Ganesh Babu[2] [13]. To study the properties such as compressive strength and tensile strengths of lightweight concrete. Expanded Polystyrene (EPS) beads are used as partial replacement to coarse aggregates with 5,10,15,20,25,30% Increase in the EPS beads content in concrete mixes reduces the compressive and tensile strength of concrete. It is used for non-structural applications, like wall panels, partition walls, etc Thomas Tamu et al [14].

2. EXPERIMENTAL STUDY

2.1. Materials

2.1.1. General

Concrete is an artificial stone like material having an excellent resistance to compression. It resembles the principal asset of natural stone and is usually cast in place in a plastic condition. The composition of concrete is determined by the properties of the constituent materials, which are binding material (e.g. cement), fine aggregate (e.g. sand), coarse aggregate (e.g. gravel), fly ash, water and super plasticizer to harden in forms of the shape and dimensions of the desired structure.

2.1.2. Cement

Cement is the binding material. In this study 43 grade of OPC confirming to the requirements of IS 8112-1989 has been used. The physical properties of cement: Specific gravity is 3.14, Specific surface area is 310 kg/m^2 and the Fineness modulus is 4%. Normal consistency of cement is 34%, initial and final setting time is 30 min and 60 min respectively.

2.1.3. Fly ash

Fly ash, also known as flue-ash, is one of the residues generated in combustion, and comprises the fine particles that rise with the flue gases. In this study Low-Calcium Fly ash (ASTM Class F), obtained from Thermal Power Plant at Thoothukudi. The specific gravity of fly ash is 2.36 and fineness of fly ash is 4%.

2.1.4. Aggregates

Aggregates are the fine aggregate and coarse aggregate. The River sand as the fine aggregate and coarse aggregates from crushed rock, conforming to the requirements of IS 383-1970. 2.1.5

2.1.5. LECA Aggregates

LECA means **L**ight **E**xpanded **C**lay **A**ggregate. LECA consists of small, lightweight, bloated particles of burnt clay. The thousands of small, air-filled cavities give LECA its strength and thermal insulation properties. The base material is plastic clay which is extensively pretreated and then heated and expanded in a rotary kiln. Finally, the product is burned at about 1100°C to form the finished LECA product.

Fig.1 LECA

Table: 1. Properties of Fine Aggregate, Coarse Aggregate and LECA.

Property	Aggregate		
	Fine	**Coarse**	**LECA**
Specific gravity	2.65	2.68	0.44
Fineness modulus	2.83	7.04	5.99
Water absorption	1.5%	0.85%	10%
Bulk density(kg/m^3)	1481	1659	357
Impact value	-	29.41%	16.5%

2.1.6 Potable Water

Water is an important ingredient because it actively participates in the reaction with cement. It ensures workability. However, good quality concrete can be made with water that would pass normal standards for drinking water.

2.1.7 Super plasticizer

Super plasticizer based on conplast SP430(G) produced by fosroc with specific gravity 1.22 and dosage of super plasticizer 0.5% of cement weight used in leca concrete.

3. MIX PROPORTION

The procedures adopted for mix proportions are still experimental in spite of considerable work done on the theoretical aspects of mix proportioning of normal weight and lightweight concretes. The mix design has been made for M_{25} grade conventional concrete (CC) and light-weight concrete (L_1) use of code IS 10262-1982, IS 456-2000 and ACI 211.2-98 recommended. The water cement ratio (W/C) was kept constant at approximately 0.48 for all mixes. The percentage like 20%, 40%, 60%, 80 and 100% incorporation was used as partial and full replacement of natural coarse aggregate and the fly ash percentage like 15%, 20%, 25% used as partial replacement for cement. IS code and ACI method is used for mix design, mix proportion obtained for M25 Grade of conventional concrete and light weight concrete mix ratio was 1:1.4:2.4 and 1:1.86:0.52. Table 2 shows the materials of per m^3.

3.1. Casting of Specimen

Fresh prepared mixes were casted for each group in three standard cube moulds, cylinder moulds and beam mould. Four groups of mixtures were produced. For each mixture, specimens were prepared in the cubical $150 \times 150 \times 150mm$, cylindrical $150 \times 300mm$ shapes. The mixing process was as follows: firstly, coarse, fine and lightweight aggregate (Leca) and 1/3 of the water were loaded into the mixer for 1 minute. Then the cement, remaining water, and super plasticizer were added. Finally, the constituents were mixed for 3 minutes. The mixture was rested for 3 minutes then mixed again for a further 2 minutes. After that moulds were filled by concrete in the suitable mix. The top

surface of the concrete was leveled with the help of trowel and was left undisturbed for 24 hours to allow concrete to set. The specimens were de-moulded after 24 hours.

Fig 2. Casted specimens   **Fig. 3 Slump test**

Fig 4. Beam mould with Reinforcement

3.2 Curing of Specimen

All the casted specimens were cured by immersing into water for 28 days until the test. The specimens were brought out from water approximately 24 hours before testing and rest at room temperature till testing.

3.3 Testing of Specimen

After curing the cubes, cylinder specimens are tested under CTM and beam specimens are tested under loading frame.

Fig.5 Testing of cube and cylinder specimen

Table.2: Mix proportions by weight for various mixes (m³)

Mixes	C	CC with % of Flyash (FC)			LECA (L₁)					Optimum proportion (L₂)	
		15%	20%	25%	20%	40%	60%	80%	100%	F-15%+ L₁ 40%	F-15%+ L₁ 60%
Cement	440	374	352	330	440	440	440	440	440	374	374
Fly ash	0	66	88	110	0	0	0	0	0	66	66
Water	211	211	211	211	211	211	211	211	211	211	211
F.A	614	614	614	614	614	614	614	614	614	614	614
C.A	1067	1067	1067	1067	853.6	646.2	426.8	213.4	0	646.2	426.8
LECA	0	0	0	0	42.6	85.2	127.8	170.4	213	85.2	127.8
SP 430	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Unit weight	2336.4	2336.4	2336.4	2336.4	2163.4	1998.6	1821.8	1651	1480.2	1998.6	1821.8

Note: CC-Conventional Concrete, F- Fly Ash, LECA-Light Expanded Clay Aggregate, FC-Fly ash Concrete, F.A-Fine Aggregate, C.A- Clay Aggregate, SP-Super Plasticizer (conplast)

4. RESULT AND DISCUSSION

4.1 Workability and Young's modulus

Workability means easy to work. The workability of the concrete was measured using the slump test. Mix CC had a slump value of 100mm. Young's modulus is defined as the ratio of stress to strain. Test results of young's modulus are shown in Table.3

Table.3: Test results of young's modulus

Mixes		Young's modulus(N/mm^2)
CC	0%	2.57×10^4
LECA(L1)	20%	2.45×10^4
	40%	2.34×10^4
	60%	2.22×10^4
	80%	2.14×10^4
	100%	2.03×10^4

4.2 Compressive strength

Compressive strength results are $28.56 N/mm^2$, $26.40 N/mm^2$ for $L_1 40\%$ & $L_1 60\%$ mix respectively. This mix can also be used for structural purposes.

4.3 Split tensile strength

Split tensile strength results of $2.53 N/mm^2$, $2.28 N/mm^2$ for $L_1 40\%$ & $L_1 60\%$ mix respectively. A brittle failure was observed.

4.4 Flexural strength

Flexural strength of the concrete is usually found by testing plain concrete beams. Two methods of loading of the beam specimen for found out the flexural strength. The flexural strength of concrete was found to be 8-11% of the compressive strength of the concrete for higher ranges of concrete strength (greater than 25 Mpa) and 9-12.8% of the compressive strength of the concrete for lower ranges of concrete strength (less than 25 Mpa). The various mixes of concrete flexural beams have been casted and needed to be tested.

5. CONCLUSION

Based on the experimental results obtained so far in this study are as follows:

1. The density of concrete is found to decrease with the increase in percentage replacement of normal aggregate by Light Expanded Clay Aggregate.

2. The compressive strength and split tensile strength of concrete is found to decrease with the increase in LECA content from 0 to 100 percent.

3. Compressive Strength and split tensile strength of L_1 40% and $L_1$60% mix found to be on line with conventional concrete

4. The experimental work carried out as the strength of fly ash concrete gives better results when replaced with 15% cement by FA.

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అందమైన వెండి మబ్బులు, అందంగా ఉండే హిమాలయాలు అపురూపంగా చూసుకునే తాజమహల్ అద్భుతంగా ఉండే నయాగరా, ఆకాశాన్ని తాకే మేడలు, వజ్రవైదూర్య శిరోమణులు ఇవేవి ఆయనకు రుచించలేదు ఊహల్లో కూడా మెదల్లేదు.

ఆకాశం నుండి నీటి చుక్క ఎప్పుడు భూమి మీద పడుతుందా అని ఎదురుచూసే కళ్ళు అద్భుత కట్టడాల కోసం రాళ్ళు మోసిన భుజాలు, ఆకలివేస్తే పచ్చడి మెతుకులతో తన కడుపునింపిన చేతులు, నిద్రవస్తే గాలి విసరటానికి ఉపయోగించిన చిరిగిన పైటకొంగు, కుండల తయారీలో మట్టని తొక్కిన కాళ్ళు ఇలాంటివి ఆయన కథా వస్తువులు.

నిత్యజీవితంలో తనకు తారసపడిన ప్రతివ్యక్తినీ, ఎదురైన ప్రతి సంఘటననూ, తన రచనలో ఎక్కడో ఒకచోట ఎప్పుడో ఒకప్పుడు భరద్వాజ వినియోగించుకున్నారు.కల్పన కంటే రమణీయతను, చమత్కారం కంటే స్పృహణీయతను ఆలోచన కంటే, హృదయ వేగాన్ని ప్రధానం చేసుకుని రచనలు చేశారు. ఒక సామాన్య సన్నివేశం భరద్వాజ స్పర్శతో రసగుళికగా మారుతుంది. సమకాలీన పరిస్థితులపట్ల అవగాహన కలిగిన వ్యక్తి అందులో పేదరిక స్థాయి నుండి వచ్చిన వ్యక్తి కనుక సమాన్యుల ఆర్తనాదాలు ఆయన హృదయాన్ని తాకి రచనలుగా వెలువడ్డాయి. ఈయన పేదరికాన్ని ఎప్పుడు శాపంలా చూడలేదు, వరంలా భావించి ధైర్యంతో కాలానికిక ఎదురీరారు. భరద్వాజ విద్యాభ్యాసం కేవలం 7వ తరగతి వరకు మాత్రమే కొనసాగింది. పుస్తకంలోని పాఠాల కంటే సమాజంలోని మనుషుల వ్యక్తిత్వాలు ఎక్కువ తెలుసుకున్నాడు. కాబట్టే ఎన్నో అద్భుతమైన రచనలు, అజరామరమైన రచనలు చేయగలిగారు. ఆయన రచనలు ఒక్కొక్కటి ఓ ఆణిముత్యమే. అటువంటి రచనలలో ఒక ప్రక్రియ "పాడ్యమి" కథల సంపుటి రెండు కథలను తీసుకుని అందులోని సామాజిక కోణం గురించి వివరిస్తాను.

పాడ్యమి కథల సంపుటిలో

1.   అవంత (17–1182 ఆంధ్రవార్త) ప్రభలో (ప్రకటితం)

2.   ప్రకటించిన (కార్యక్రమానికి బదులు) (14–5–82) (ప్రకటితం)

3 .   తేనీరు (24-7-82 ఆంధ్ర (దిన) ప్రభలో ప్రకటితం)

4.   కథానాయకుడు దొరికాడు 1983 విపులలో ఇక కథ దొరకాలి

5.   పుట్టి – (జూన్ – 1983 సాధన లో (ప్రకటన)

6.   ఈ సారికాలి పోనిండి – (10-9-83చ, 9,83,25-9-83, 2-10-83 విశాంధ్రలో

7.   ఈమె కథ – కాదు కళ్ళ కథ – కాదు కాదు ఆ కళ్ళ కథ (17-9-82 ఆంధ్రవార్త)

ప(త్రికకలో ప్రకటితం)

వీటిలో రెంటిని గురించి ప్రస్తావిస్తాను.

'అవంత ' లో చలమయ్య పాత్రలో పెద్దరికం, ఇచ్చిన మాటకు కట్టుబడి ఉండే స్వభావాన్ని చూపిస్తూ తన తండ్రి అంటే ఎంతో ప్రేమ గౌరవం ఉండే వ్యక్తిగా పాత్రను వడిపిస్తడు.

పెళ్ళి తర్వాత ఈ రోజుల్లో తల్లిదండ్రులను గెంటేసే కొడుకులను చూస్తున్నాం. ముసలి వారిని భారంగా భావించే కొడుకులను గమనిస్తున్నాం. మన తండ్రిగారు చనిపోయిన తన పేరు స్తంభం కట్టించి, దాని ప్రక్క ఒక బావి తవ్వించి, కొంత భూమి దానం చేసిన చలమయ్య నేటి తరానికి నిజంగా ఆదర్శమైన బాధ్యత గల కొడుకు పాత్రలో కనిపిస్తారు. చివరికి తన కూతురి పెళ్ళి విషయంలో ముందుగా మాట్లాడుకున్న కట్నుకానుకల దగ్గర తేడావస్తే నేను ముక్కుసూటి మనిషిని అంటూ, నేను చెప్పిన వరకే ఇస్తాను అంటాడు. స్వతహాగా మంచి వ్యక్తిత్వం కలిగిన వ్యక్తి కనుక అందరూ చివరకు ఈయన బాటలో నడిచే విధంగా రచయిత చెబుతూ హరిహరములు అడ్డమొచ్చినా నా మాటకు ఆవ(గింజ)త తేడా లేదు అంటాడు.

నాటకం వేసే సన్నివేశంలో

మహారాజు గారు సకల సైన్యాలతో యుద్ధానికి వెళ్ళిపోయారు. ఆయన బదులుదేరే ముందు అపశకునాలు ఎదురొత్తాయి. దానికి తగినట్లుగా ఆ రోజు శత్రురాజుతో జరిగిన ఘరో సమరంలో తీవ్రంగా గాయపడి బదింపబడతాడు. ఈ వార్త విన్న రాణి ఏడుస్తూ విచారిస్తూ జుట్టు విరబోసుకుని ఒక మూలగా ఒరిగి కూర్చుని ఉంటుంది.

అప్పుడే పరహారేళ్ళు వయస్సు గల ఆమె కుమారుడు రంగ ప్రవేశం చేసి, వస్తానే తల్లిని చూసి, అమె కన్నీటి తడుస్తాడు. తుడిచిందాకా ఒక దై లాగు లేదు. తుడిచాక – ప్రేక్షకుల వైపు తిరిగి చేయి చాపి సంభాషణను ప్రారంభిస్తాడు – ఇలాగాఇ

"జననీ ! అవక్ర పరాక్రమోపేతుడైన మధభూపతి తనయ యుద్ధవార్తలు విని కంట తడి పెట్టనాడన్నుయపకర్తీని మన వంశమునకు రానీయకుము. ఆ నాగాధీతుడెండ?   వాని సైన్యమెంత? నన్ను బాలకుడని భావించుకుము. మాతులుంగ, లుంగా, లవంగ, చూతకీఅనీ, భల్లాట క్రామ విహినములనైన

జొచ్చి,మదీయ బహుబల దర్పముతో ఆ నాగుని పీచమణచి, దంతముల నూడబెరికి, కాలుసేతులు బంధించి నీ పాదములకడ నుంచనిచో నా జన్మమెందులకు తల్లీ! కాల్పనా? నాగుని కవౌటష్ఠరుధిర ధారలతో నీ పాదాభ్మ ఉల నభిషేకించుతనని ఇదె – ప్రతిజ్ఞ సేయుచున్నాడు. ఆ వంత ను నీ చెంత చేరనీయకుము – ఇదె వెడలుచున్నాడను. జెరా! ఎవదురా అక్కడ? వాయువేగ మనోవేగములనధిక్కరించు మాదీయ జవనాశ్వమును సుసజ్జితము కావింపుము ! నేనిదె వచ్చుచున్నాను. నాగహంతకా! నేటితో నీ చావు మూడినది. కాచుకొమ్ము.

అప్పుడు మహారాణీవారు ఇలాగ అంటారు.

వీరపుత్రా నేటికి నా పుట్టువు చరితార్థమయినది. నేను వీరపత్నిని మాత్రమే కాదు. వీరమాతనని నేడే గ్రహించితిని, నీ వీరాధి శూర, పౌర కిశోరము నాత్యయుడెయుండగా, ఆ – వంత యు నా దరిచేదరు. అంటుంది.

ఈ కథలో తల్లిదండ్రుల ద్వారా సంక్రమించిన ఆస్థిపాస్థులలో వాటా పంచుకోవడం కాదు కష్టకాలములలో తన ప్రాణాలను సైతం పణంగా పెట్టి తల్లి కన్నీరు తుడిచేటట్టు ఉండాలి అంటూ సందేశశం ఇస్తూనే, నాటకాలను వృత్తిగా పెట్టుకుని బ్రతుకు బండిని సాగిస్తున్నటువంటి వ్యక్తుల జీవితాల ఎలా వుంటాయె చెప్పారు.

భరద్వాజ గారి ప్రతిరచనలోనూ సామాజిక స్పృహ కనిపిస్తుంది. ఆయన కాలం నుంచి జాలు వారిన ప్రతి అక్షరం పేదవాడి జీవితాన్ని ప్రతిబింబిస్తుంద. ఈ కథాసంపుటిలో కథలను నిడిపించిన తీరు అద్భుతం, పాఠకుడికి ఆనందాన్నిస్తూనే ఆలోచన పంచుతాడు. మానవీయ విలువలు చూపుతాడు. కొన్ని సందర్భాలలో హాస్యం, ఆలోచన, కర్తవ్యం వైపు మనిషి మనసు మరల్చి చివరకు మనిషి మంచి మార్గం వైపు మరల్చే విధంగా చేస్తాడు.

అవం – తేనీరు పుట్టి అన్న కథలో బరువును, కష్టతను కొంత తొలగించి, కథారూపంలో ఎంతో కళాత్మకంగా చిత్రించాడు.

అమె కథ – కాదు కళ, కథ – కాదు కాదు ఆ కళ్ళ కథ అన్న రచనను కథ అంటే సరిపోదు దానకొక వచన కథాకావ్యంగా రచయిత తీర్చిదిద్దాడు.

భరద్వాజ దృష్టి నైశిత్యానికీ, కథా కథనశిల్ప నిన్నాణానికి, ఇదొక ప్రతీక. తన రచనకు సంబంధించిన ప్రతి సూక్ష్మాంశాన్ని భరద్వాజ ఎంతో స్పష్టంగా దర్శించగలడో అంత స్పష్టంగా పాఠకునికి దర్శనం చేయగలిగాడు.

ఈయన రచనలలో సామాన్యుడి జీవితం గురించి, సామాజిక చైతన్యం గురించి, సమాజం గురించి, సామాజిక పరివర్తనం గురించి సాహిత్యం పుట్టిందే సామాజిక హితం అనడంలో ఈయన రచనలు చూస్తే కాదనలేము. ఈయన రచనలకు ఎవరూ కూడా విలువకట్టలేరు. ఒక్క జ్ఞానపీఠ అవార్డుతో సత్కరించకోవడం తప్ప.

IMPLIES AND THEIR INEQUALITIES IN MATHEMATICS

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Abstract:

The hypothesis of means has its roots in the work of the Pythagoreans who presented the consonant, geometric, and number-crunching implies with reference to their hypotheses of music what's more, number juggling. Later, Pappus presented seven different means what's more, gave the surely understood exquisite geometric verification of the commended imbalances among the symphonious, geometric, and math implies. These days, the families and sorts of implies that are being examined by scientists and the assortment of inquiries that are being gotten some information about them are past the extent of any single study, with the voluminous book Handbook of Means and Their Inequalities by P. S. Bullen being the best such reference in this bearing. The hypothesis of means has developed to possess a conspicuous spot in science with several papers on the subject seeming each year. The solid relations and collaborations of the hypothesis of implies with the speculations of imbalances, useful conditions, what's more, likelihood and insights add extraordinarily to its significance. Constant variants of a few means and imbalances among them tie it with genuine investigation and the hypothesis of coordination. The way that focuses of triangles and simplices can be seen as method for focuses in the Euclidean spaces makes the subject important to geometers. Energy and co positivity tests in the hypothesis of structures actually offer ascent to questions on internality tests of means emerging from structures, making this part of the subject of enthusiasm to algebraists too. Augmentations of Gauss' exceptional

revelations that relate the assessment of certain elliptic integrals to emphases of the number juggling and geometric means that prompted the excellent arithmetic geometric mean came about in such a large number of fascinating results and lines of examination.. The hypothesis of means has applications in such a variety of other different fields. Citing from the prelude of the previously stated book of P. S. Bullen, these incorporate electrostatics, heat conduction, science, and even prescription. This issue contains a few papers that relate to some of the previously stated subjects. One of the papers is a work of certain basic parts of the subject, together with a few open issues that are inside the appreciation of a graduate understudy. It is trusted that such inquiries will prompt commitments from specialists and beginners alike.

Keywords: Implies, Inequalities, Maths

Definitions and Terminology

In all that takes after, R signifies the arrangement of genuine numbers and J signifies an interim in R. By an information set (or a rundown) in a set S, wemean a limited subset of S in which reiteration is permitted. In spite of the fact that the request in which the components of an information set are composed is not noteworthy, we some of the time think that its advantageous to speak to an information set in S of size n by a point in Sn, the cartesian result of n duplicates of S. We will call an information set $A = (a_1 a_{2,}, \ldots, a_n)$ in R requested if $a_1 \leq \cdot \leq a_n$. Plainly, every information set in R might be accepted requested.

A mean of k variables (or a k-dimensional mean) on J is characterized to be any function   M : $J_k \to$ J that has the internality property min $(a_1 a_{2,}, \ldots, a_k) \leq M(a_1 a_{2,}, \ldots, a_k) \leq$ max $(a_1 a_{2,}, \ldots, a_k)$ for all $a j$ in

J. It takes after that a mean M must have the property M $(a, \ldots, a) = a$ for all a in J.[1]

Most implies that we experience in the writing, what not implies considered underneath, are additionally symmetric as in $M(a_1 a_2, , \ldots, a_k)) = M(a \sigma(1), \ldots, a \sigma(n))$ for all stages σ on $\{1, \ldots, n\}$, and 1-homogeneous in the sense that $M(\lambda a_1, \ldots, \lambda a_k) = \lambda M(a \sigma(1), \ldots, a \sigma(n))$ for all admissible $\lambda \in$ R.

If M and N are two k-dimensional means on J, then we say that M ≤ N if $M(a_1 a_2, , \ldots, a_k) \leq N(a_1 a_2, , \ldots, a_k)$ for all $a_j \in$ J. We say that M < N if $M(a_1 a_2, , \ldots, a_k) < $ N $(a_1 a_2, , \ldots, a_k)$ for all $a_j \in$ J for which $a_1 a_2, , \ldots, a_k$ are not all equivalent. This exemption is common since M $(a, \ldots, a)$ and N$(a, \ldots, a)$ must be equivalent, with each being equivalent to a. We say that M and N are practically identical if M ≤ N or N ≤ M.

A separation (or a separation capacity) on a set S is characterized to be any capacity: $S \times S \rightarrow [0, \infty)$ that is symmetric and positive unmistakable, that is, $d (a, b) = d(b, a), \forall a, b \in S, d (a, b) = 0 \Longleftrightarrow a = b$.

Subsequently a metric is a separation that fulfills the triangle imbalance $d (a, b) + (b, c) \geq (a, c), \forall a, b, c \in S$, a condition that we find excessively prohibitive for our motivations.

Case of Means

The number juggling, geometric, and consonant method for two positive numbers were known not old Greeks.. They are normally signified by A, G, and H, separately, and are characterized, for $a, b > 0$, by A$(a, b) = a + b 2$, G$(a, b) = \sqrt{ab}$, H$(a, b) = 2 1/a + 1/b = 2ab a + b$

The praised imbalances H$(a, b) <$ G$(a, b) <$ A$(a, b) \forall a, b > 0$ were likewise known not Greeks and can be delineated in the surely

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[1] J. S. S´andor and M. Bencze, "On Huygens' trigonometric inequality," *RGMIA Research Report Collection*, vol. 8, no. 2, article 15, 2006.

understood assume that is generally ascribed to Pappus. A few different less surely understood means were likewise known not old Greeks.[2]

The three means above, and their normal expansions to any number n of variables, are individuals from a huge two parameter family of means, known nowas the Ginimeans and characterized by $G_{r,s}(x_1, \ldots, x_n) = (N_r(x_1, \ldots, x_n) N_s(x_1, \ldots, x_n)) 1/(r-s)$, where N_j are the Newton polynomials characterized by $N_j(x_1, \ldots, x_n) = n \Sigma k=1 \, x_{jk}$.[3]

Method for the sort $G_{r,-1}$ are known as Lehmer's methods, and those of the sort $G_{r,0}$ are known as Hölder or force implies. Different implies that have been concentrated broadly are the rudimentary symmetric polynomial and basic symmetric polynomial proportion implies characterized by $(\sigma_r C_n^r) 1/r$, $\sigma_r / C_n^r \sigma_{r-1} / C_{r-1}^n$, where σ_r is the rth rudimentary symmetric polynomial in n variables, and where $C_n^r = (n^r)$.

These are examined in full detail in the comprehensive work. Clearly the force means P_r characterized by $P_r(a_1 a_{2,}, \ldots, a_n) = G_{r,0}(a_1 a_{2,}, \ldots, a_n) = (ar_1 + \cdot + ar_n) 1/r$ that relate to the values $r = -1$ an d$r = 1$are only the symphonious and number juggling means H and A, separately. It is additionally regular to set $P_0(a_1 a_{2,}, \ldots, a_n) = G(a_1 a_{2,}, \ldots, a_n) = (a_1 a_{2,}, \ldots, a_n) 1/n$, since $\lim r \to 0 (ar_1 + \cdot + ar_{nn}) 1/r = (a_1 a_{2,}, \ldots, a_n) 1/n$ for all $a_1 a_{2,}, \ldots, a_n > 0$.

The disparities can be composed as $P_{-1} < P_0 < P_1$. These disparities hold for any number of variables and they take after from the more broad actuality that $P_r(a_1 a_{2,}, \ldots, a_n)$ for settled $a_{1,} a_{2,}, \ldots, a_n > 0$, is

[2] J. S´andor, "On certain inequalities for means. III," *Archiv derMathematik*, vol. 76, no. 1, pp. 16–22, 2001.pp. 142–154, 2004.
[3] J. S´andor, "On the identric and logarithmic means," *Aequationes Mathematicae*, vol. 40, no. 2-3, pp.372–389, 1990.pp. 279–282, 1995.

entirely expanding with r. Power means are concentrated completely in other papers.

Mean-Producing Distances and Separation Means

It is characteristic to think about the mean of any rundown of focuses in any set to be the point that is nearest to that rundown. It is likewise common to think about a point as nearest to a rundown of focuses if the sum of its separations from these focuses is insignificant. This mode of considering partners intends to separations. On the off chance that d is a separation on S, and if $A = (a_1 a_2, , \ldots, a_n)$ is an information set in S, then a d-mean of A is characterized to be any component of S at which the capacity $f(x) = n \Sigma i=1 \, d \, (x,a_i)$ accomplishes its base. It is possible that accomplishes its minimum at numerous focuses, or no place by any stretch of the imagination. In any case, we should be essentially inspired by separations d on J for which achieves its base at a one of a kind point $x A$ that, moreover, has the property min $\{ : a \in A\} \le x A \le$ max $\{a : a \in A\}$ for each information set A. Such a separation is known as a meancreating on the other hand a mean-characterizing separation, and the point x^4

A is known as the d-mean of A or the mean of A emerging from the separation d and will be meant by $\mu \, d \, (A)$.A mean M is called a separation mean on the off chance that it is of the structure $\mu \, d$ for some separation d. Issue Set 1. (1-a) Characterize those separations on J that are mean-delivering. (1-b) Characterize those sets of mean delivering separations on J that deliver the same mean. (1-c) Characterize separation implies.

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[4] B. C. Carlson, "The logarithmic mean," *The American Mathematical Monthly*, vol. 79, pp. 194–267, 1972.

Case of Mean-Producing Distances

On the off chance that d 0 is the discrete metric characterized on R by d_0 $(a, b) = \{$ 1 if $a \neq b$, 0 if $a = b$, at that point the capacity $f(x)$ is only the number of components in the given information set A that are unique in relation to x, and along these lines each component having greatest recurrence in A minimizes and is thus a d_0-mean of A. Along these lines the discrete metric offers ascend to what is alluded to in insights as "the" method of A. Due to the non uniqueness of the mode, the discrete metric is not a mean-creating separation.

Likewise, the typical metric $d = d_1$ characterized on R by d_1 $(a, b) = |a - b|$ is not a mean-creating separation. Actually, it is not exceptionally troublesome to see that if $A = (a_1 \, a_2, \, , \ldots , \, a_n)$ is a requested information set of indeed, even size $n = 2m$, then any number in the shut interim $[a_m , a_{m+1}]$ minimizes $n \Sigma j=1 \; x - a \, j$ what's more, is in this manner a d_1-mean of A. Also, one can demonstrate that in the event that A is of an odd size $n = 2m- 1$, then $a \, m$ is the novel d_1- mean of A. Subsequently the typical metric on R offers ascend to what is alluded to in insights as "the" middle of A.

Then again, the separation d_2 characterized on R by d_2 $(a, b) = (a - b)2$ is a mean-delivering separation, despite the fact that it is not a metric. In certainty, it takes after from straightforward subsidiary contemplations that the capacity $n \; \Sigma \; j=1 \; (x - \; ar_1 + \cdot + ar_{\, n}) \; 2$ accomplishes its base at the remarkable point $x = 1 \, n \; (\; \Sigma \, j=1 \, a \, j)$.[5]

In this manner d_2 is a mean-creating separation, and the relating mean is only the number juggling mean. It is significant that the three separations that come to mind most normally offer ascent to the three generally ordinarily utilized "signifies" in measurements. In this admiration, it is likewise worth saying that a fourth mean of insights,

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[5] E. Neuman and J. S´andor, "On the Schwab-Borchardt mean. II," *Mathematica Pannonica*, vol. 17, no. 1,pp. 18–28, 2006.

the alleged midrange, will be encountered below as a very natural restricting separation mean.

The distances d_1 and d_2 (and one might say, d_0 additionally) are members of the family d of separations characterized by.It isnot troublesome to see that if> 1, then is a mean-creating separation. Actually, if = (1) is a given information set, and in the event **that ()** **= Σ =1, at that point** (a, b) **= (a− 1) Σ −2 ≥ 0, with fairness if** **and just if 1 x I y in this way is curved and can't accomplish** **its base at more than one point That it achieves its minimum** **takes after from the progression of (a=b), the minimization of** **(ar_1 + · + ar_n], and the undeniable certainty that is expanding** **on [n Σ j=1 $x − a j$ a,∞) and is decr1 ar_1 + · + ar_n], and the** **conspicuous reality that is expanding on [1 if $a \neq b$,∞) and is** **diminishing on (1 if $a \neq b$ −∞].**

On the off chance that we indicate the imply that characterizes by, then (n Σ j=1 $x − a j$) is the novel zero of Σ =1 sign (−1 , where sign(+1) is characterized to be 1 if is nonnegative and −1 something else. Note that regardless of what > 1 is, the two-dimensional mean emerging from is the number-crunching mean.Thus when concentrating on , we limit our regard for the situation when the number of variables is more noteworthy than two. For such k, it is outlandish as a rule to register (**n** Σ j=1 $x − a j$) in shut structure. Issue 2. It is intriguing to research similarity among { 0 > 1}. It is profoundly likely that no two means are equivalent.

Deviation and Sparseness

On the off chance that is a mean-delivering separation on , and **if is the related mean, then it is normal to characterize the-** **deviation D (x = 1 n (Σ j=1 a s b) of an information set = (x = 1** **n (Σ j=1 $a j$) by an expression like D = (if $a \neq b$) ,1) : 1 ≤ ≤ n** **Σ j=1 $x − a j$ } . Subsequently if is characterized by) = (n Σ**

$j=1$ $x - a_j$ **) 2 , at that point is only the number juggling mean or standard normal characterized by** $= (1 a+1$ if $a =\!\!\!/ b) =$ **1 + + , furthermore, D(**$n \Sigma j=1$ $x - a_j$ **) is the (squared) standard deviation given by (1 b+** 1 if $a =\!\!\!/ b) = 1 2$.[6] It could be said, this gives a response to the individuals who are confused what's more, perplexed by the decision of the example 2 (and no other example) in the standard meaning of the standard deviation given in the right-hand side of . Truth be told, separation means were concocted by the creator trying to evacuate that secret. By one means or another, we are stating that the conventional normal and the standard deviation (2) must be taken on the other hand disposed of together, being both connected with the same separation given in (28). Since few individuals address the sensibility of the meaning, tolerating the standard meaning of the standard deviation as is turns into an absolute necessity.

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[6] with emphasis on the Cusa-Huygens, Wilker, and Huygens inequalities," *Mathematical Inequalities &Applications*, vol. 13, no. 4, pp. 426–428, 2010.

PRICE -EARNING METRICS FOR EQUITY PRICING: A SELECT STUDY OF INDIAN PHARMACEUTICAL SECTOR

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Abstract

Stock market trading is not new in India. Since 1857 the trading in India has been taken place it attracted many investors to divert their savings and earns preceded returns but the basic issue regarding the investment decision in stock market is to predict the price, there are numerous tools available to predict the price but one of the most acceptable is metric price-equity ratio. The present study is an attempt to predict the price by using price/equity ratio considering the weight age of the past five years.

Keywords: Price-Equity, Investment, Stock Market, Expected Price

INTRODUCTION

Investor had many avenues to invest the money but it entirely depends upon the preference of the investor which avenue to the selected now the investors had much awareness about the stock market even through there is much risk in there in stock market to investors are ready to invest the big challenge in front of any investors is to predict the future stock price before the investment and there are numerous methods and tools have been developed but one of most traditional and the most referable methods is price earning method .here in this paper an attempt has been made to outline the expected price of share price by using price earnings ratio.

II.REVIEW OF LITERATURE:

The relationship between share prices and fundamentals (e.g. firm earnings, dividends and book-value per share) has always remained as the focus area of interest for market analysts, fund managers and investors. In this regard, the Price-to-earnings ratio has gained enormous popularity for evaluating individual stocks, sectors and stock markets as potential investments (Molodovsky 1953). Existing literature has classified the determinants of Price-earnings ratio according to the market analysis and sector analysis.

Numerous researchers conducted market analysis by using different sample data in both developed and developing countries and found mixed evidence regarding the determinants of P/E ratio. A number of studies have examined the determinants of P/E ratios for the U.S economy. Reilly et al. (1983) examined a time series relationship of price-to-earnings ratio by using multiple regression model for quarterly standard & poor 500 data for the period of 1963 to 1980. Results showed that P/E ratio increased with an increase in dividend payout, realized earnings growth, and dividend growth and decreased with an increase in business failure rate, risk-free return, inflation and earnings volatility. A study covering the period of 1953-1994, Kane et el. (1996), examined the relationship between P/E ratio and market volatility for standard & poor's 500 index. Regression analysis depicted that market volatility, inflation rate and detruded industrial production (percentage deviation from the trend line) had significant negative relationship with P/E ratio, whereas the impact of real rate and dividend yield were also negative but statistically insignificant.

Ohlson (1995) discusses the role of earning per share and its role in security valuation. . Ohlson (1995) discusses the role of earning, book value and dividends in equity valuation. Collins (1999) discusses the

effect of negative earning on equity valuation. Dechow (1999) studies the effect of residual income and the equity valuation.

Collins and Kothari (1989) concentrate on the stock price change associated with a given unexpected earnings change. It is based on cross-sectional inter-temporal data. Collins, Pincus, and Xier (1989) study the role of book value of equity in the equity valuation. Dechow (1999) discuss the role of residual value on equity valuation. Miller and Modigliani (1961) studied the effect of dividend policy and the growth of the company on equity valuation. Dechow (1998) attempts to establish the statistical relationship with equity value, earnings and book value. Collins and Kothari (1989) tries to establish the leading relationship between stock returns, change in EPS and firmsize. Zhang and Chen (2007) discuss to establish relationship between equity value, earnings yield, change in profitability, change in capital investment, change in growth opportunity and change in discount rate. In this article equity value is dependent variable, remaining variables are independent variables.

Research at the international level indicates that EPS does impact equity market value. In the Indian context, there is no research to establish the relationship between EPS and equity market value. Hence, the present paper aims at finding out whether EPS impacts equity market value in the Indian context.

NEED AND IMPORTANCE OF THE STUDY:

The present study of share valuation by using price/earnings ratio helps the investor by giving the information related to the earning capacity and expected share value price to take rational decision.

OBJECTIVE OF THE STUDY:

1. To study how the price/earnings approach help the investor in taking investment decision.

2. To study the implementation of price/earnings approach to determine the share value.

SCOPE OF THE STUDY:

The area covered for the present study is limited to pharmacy industry traded at BSE and basically concentrated on determination of future price.

LIMITATION OF THE STUDY:

1. The study is limited to 5 companies of pharmacy sector traded at BSE.

2. The data collected for the present study is limited to last 4 years.

3. The techniques used for the prediction and valuation of the shares are through price/earnings multiplier approach only.

RESEARCH METHODOLOGY

The present study is mainly based on the secondary data which is collected from the company"s annual reports, BSE websites, articles.

RESEARCH TOOL

The research tool used for the present study is price earning multiplier approach which is universally acceptance metric for an investment decision.

1) A high price earning indicates that the market has overvalued the security.

2) A how price earning indicates that the market has undervalued the security.

   If price earning is low it means that EPS is comparatively higher than the prevailing market place vice versa.

Price earnings ratio multiplier is used as a research tool for the valuation

P/E Ratios = MPS/EPS

Expected market price = forecasted EPS * Weight of P/E

The weighted P/E is computed by using the P/E multiplies of the preceding five years with the latest year is allocated a highest weight.

The forecasted EPS is determined by using CAGR Method.

DATA ANALYSIS AND FINDING:

TABLE-1

Company Name: TORRENT PHARMACEUTICALS LTD

BSE Code: 500420

Year	EPS	MPS	P/E Ratio	Weights	Weighted Average	Forecasted EPS	Expected Share Price
2010-11	34.37	578.55	16.83	1.00	1.12		
2011-12	36.78	628.65	17.09	2.00	2.28		
2012-13	64.52	695.25	10.78	3.00	2.16	37.38	718.87
2013-14	44.82	523.65	11.68	4.00	3.12		
2014-15	36.65	1160.85	31.67	5.00	10.56		
		P/E Multiplier			19.23		
CAGR	0.02						

Interpretation: From the above table the EPS is gradually increasing and the compounded annual growth in EPS is computed to 0.02 percent were the expected EPS for the year 2015-16 will be Rs 37.38 per share but the market price per share is volatile for the entire period of study and the same is also expected for the year 2015-16 and the computed Market price per share is 718.87, which indicates the investors, the maximum price can be put to purchase the share. Here the expected market price is lower than the last year market price because the MPS is not consistent and the risk of volatility needs to be considered.

TABLE-2

Company Name: GLENMARK PHARMACEUTICALS LTD BSE Code: 532296

Year	EPS	MPS	P/E Ratio	Weights	Weighted Average	Forecasted EPS	Expected Share Price
2010-11	7.85	283.60	36.13	1.00	2.41		
2011-12	9.81	307.65	31.36	2.00	4.18		
2012-13	14.26	462.55	32.44	3.00	6.49	54.60	1614.04
2013-14	16.00	565.90	35.37	4.00	9.43		
2014-15	37.14	786.00	21.16	5.00	7.05		
		P/E Multiplier			29.56		
CAGR	0.47						

Interpretation: From the above table the EPS is gradually increasing and the compounded annual growth in EPS is computed to 0.47 percent were the expected EPS for the year 2015-16 will be Rs 54.60 per share and the market price per share is also gradually increasing for the entire period of the study and the same is also expected for the year 2015-16 and the computed Market price per share is 1614.04, which indicates the investors, the maximum price can be put to purchase the share. It is advisable for the investor to purchase the shares.

TABLE-3

**Company Name: ALEMBIC PHARMACEUTICALS LTD
BSE Code: 533573**

Year	EPS	MPS	P/E Ratio	Weights	Weighted Average	Forecasted EPS	Expected Share Price
2010-11	4.32	10.00	0.00	1.00	0.00		
2011-12	6.39	48.40	7.57	2.00	1.01		
2012-13	8.35	104.15	12.47	3.00	2.49	22.34	434.20
2013-14	12.64	283.85	22.46	4.00	5.99		
2014-15	15.20	453.25	29.82	5.00	9.94		
		P/E Multiplier			19.43		
CAGR	0.37						

Interpretation: From the above table the EPS is gradually increasing and the compounded annual growth in EPS is computed to 0.37 percent were the expected EPS for the year 2015-16 will be Rs 22.34 per share but the market price per share is increased for the entire period of study and the computed Market price per share is 434.20, which indicates the investors, the maximum price can be put to purchase the share. Here the expected market price is lower than the last year market price because the MPS is not consistently increasing for the entire period of study.

TABLE-4

Company   Name: AJANTA   PHARMA   LTD BSE Code: 532331

Year	EPS	MPS	P/E Ratio	Weights	Weighted Average	Forecasted EPS	Expected Share Price
2010-11	7.87	200.30	25.45	1.00	1.70		
2011-12	11.27	456.15	40.47	2.00	5.40		
2012-13	17.14	643.40	37.54	3.00	7.51	50.95	1888.62
2013-14	25.00	1001.40	40.06	4.00	10.68		
2014-15	34.66	1225.45	35.36	5.00	11.79		
		P/E Multiplier			37.07		
CAGR	0.45						

Interpretation: From the above table the EPS is gradually increasing and the compounded annual growth in EPS is computed to 0.45 percent were the expected EPS for the year 2015-16 will be Rs 50.95 per share and the market price per share is also gradually increasing for the entire period of the study and the same is also expected for the year 2015-16 and the computed Market price per share is 1888.62, which indicates the investors, the maximum price can be put to purchase the share. It is advisable for the investor to purchase the shares.

TABLE-1

Company Name: NATCO PHARMA LTD BSE Code: 524816

Year	EPS	MPS	P/E Ratio	Weights	Weighted Average	Forecasted EPS	Expected Share Price
2010-11	3.70	273.45	73.91	1.00	4.93	13.52	1925.04
2011-12	3.99	353.75	88.66	2.00	11.82		
2012-13	4.98	429.05	86.15	3.00	17.23		
2013-14	6.66	797.00	119.67	4.00	31.91		
2014-15	9.20	2110.05	229.35	5.00	76.45		
		P/E Multiplier			142.34		
CAGR	0.26						

Interpretation: From the above table the EPS is gradually increasing and the compounded annual growth in EPS is computed to 0.26 percent were the expected EPS for the year 2015-16 will be Rs 13.52 per share but the market price per share is increased for the entire period of study and the computed Market price per share is 1925.04, which indicates the investors, the maximum price can be put to purchase the share. Here the expected market price is lower than the last year market price because the MPS is not consistently increasing for the entire period of study, in the year 2013-14 to 2014-15 the mps increased tremendously.

CONCLUSION:

The MPS of the Torrent Pharmaceutical Ltd is volatile and the EPS is also not increased at satisfactory level compare to other companies in pharmaceutical sector, and it is advisable to the investor consider the level of volatility. In regards to Genmark Pharmaceutical Ltd the EPS and MPS are gradually increasing for the entire period of study it is advisable for an investment. Alembic and Natco Pharma ltd, as growth rate of EPS and MPS are increased slowly and it can be considered for an investment. In compare to all other companies in the above entire study the performance of Ajanta company is excellent, where the EPS and MPS increased consistently so it is advisable for investment.

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DEVELOPMENT AND IMPLEMENT OF SOFT SKILLS AND LIFE Skills: THROUGH TEACHER EDUCATION PROGRAMME

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Abstract

To live to the challenge of globalization which is in line with the era of information economy, the strength of a nation is strongly dependent on the ability of its citizen to be highly intellectual, skilful and it ca be applied in life skill. The development of human capital is thus important and necessary since it drives the nation to the envision vision and mission. Without a quality human capital, a nation will be weak as there is no human factor that is capable to embark on new initiatives and perspectives. A quality human capital comes from a quality education process. A carefully designed and well planned education system is critical to developing such human capital. Institutions of teacher education playa very important role to produce a human capital that is highly knowledgeable and skilful with life skill oriented to meet the demand and expectations of may people. The teaching and learning processes in institutions of teacher education should be capable to provide such knowledge and skills to perspective teachers. The curriculum process of the teacher education should be capable of providing some knowledge and kills and life skill programme for teacher education in conceptual and soft skills apart from hard skill. Infusing the soft skills in the curriculum of teacher education is the need of the profession for it to be successful.

Keyword: *Life Skill, Soft Skill Teacher Education, Policies, Education Implications, Curriculum*

Introduction

Soft and life skills are personal attributes that enhance an individual's interactions, job performance and career prospects and hard skills which tend to be specific to a certain type of task or activity. We could say that soft skills refer to personality traits, social gracefulness, and fluency in language, personal habits, friendliness and optimism that mark to varying degrees. Life skill the reorientation of education which is one trust of education for sustainability also relates the importance of these so-called soft skills. Life skills may be viewed as a range of psycho-social and cognitive abilities that equip children to make informed decisions and choices, manage their emotional well-being, and communicate effectively. This article enhances the method of life skill and soft skill how to inculcate in or teacher education programme. This has lead to re-organizing of the education systems all over the world so that they provide not only high standards of academic qualifications, including literacy and innumeracy but also inculcate skills such as creativity, communication, empathy, adaptability, and social skills, all of which are being increasingly emphasized by employers and others in the global society.

Objective

➢ To enhance the life skill pogramme in Teacher Education Curriculum.

➢ To enhance the Soft kill programme in Teacher Education Curriculum.

Need for the Study

This paper aims to synthesise and contribute to the growing discussion around the development of life skills education in India. It propose that life skills should be explicitly woven into school education

by exploring evidence on why such skills matter and which skills ae important for learning and future outcomes.

Defining Life Skills

Life skills may be viewed as a range of psycho-social and cognitive abilities that equip children to make informed decisions and choices, manage their emotional well-being, and communicate effectively. Efforts to address the achievement gap have typically focused on secondary to achieving basic literacy and numeracy, only if resources are available. Research, however, unequivocally shows that students who develop social-emotional skills and academic mindsets are better equipped to succeed in school and are able to transfer theoretical concepts to real-life situations early on. 1 We will explore evidence on this need for life skills education in more detail in Section 2.

Categorising Life Skills

Life skills encompass a wide-ranging and often unstructured set of skills and attitudes that is difficult to rigidly define and that has not been officially codified or categorized. A number of related terms are used in this context; some of these include:

- ➢ Life skills
- ➢ 21st century skills
- ➢ Non-cognitive skills
- ➢ Non-academic skills
- ➢ Character skills
- ➢ Soft skills
- ➢ Social and Emotional Learning (SEL)

Life Skills Education Policies in India

An effective life skills approach is driven by multiple aspects:

> ➢ Prog**ramme Content:** Developing relevant information, attitudes, and skills.

> ➢ **Mechanisms:** Implementing participatory teaching practices, modeling of skills and reinforcement.

> ➢ **Teacher training:** Building teachers' belief in the potential and capacity in delivery of life skills education.

> ➢ **Commitment:** Advocating for the integration of life skills education in school curriculum.

Defficulties

> ➢ Moving life skills from the margins (i.e. extracurricular or as passive 'values education') to the centre of schooling and crating multiple learning opportunities or reinforcement within schools.

> ➢ Introducing a learner-centric pedagogy, not solely reliant multiple learning opportunities reinforcement within schools.

> ➢ Building a school culture toward life-skills based education.

> ➢ Improving the capacity and motivation of teachers to development and integrate such life skills into their classroom practice.

Life skills and employment: Life skills are imparted as part of training programmes building secondary school students' employability skills.

Along with investing in technical skills such programmes address skills and mindsets such as taking responsibility, adaptability entrepreneurship, effective communication, decision-making, leadership and teamwork. The aim is to equip children with technical knowledge as well as the soft skills required to succeed in the workplace, thereby directly translating their education into a source of livelihood. Examples in India include In Open (life skills education as part of

computer literacy programmes)' IGNIS Careers (English language learning), Medha (Soft skills for the workplace}, and Lend A Hand India (vocational education).

Life skills and values education: Existing policy in India, by a large measure, tends to focus on inculcating such skills through values-based education. However, unless well existing syllabus pressure. Examples of schools that have integrated holistic development as part of their pedagogy include the Don Bosco School network.

Early childhood education: Early childhood interventions lay strong foundations for children during the most critical development phase of their lives, i.e. from ages 3-6 years. Such interventions explicitly target a wide range of cognitive, language, emotional and social skills from communication, self-regulation, conflict resolution skills, etc. Examples include Sesame Workshop India and Bodh Shiksha Samiti.

Life skills and child right: Within Inida, there are several interventions that work on building life skills as part of larger programme of child rights and empowerment. Such organizations address target mindsets and abilities such as self-awareness, leadership, and social influence, through their broader goals of tackling gender disparity, violence health etc.

Higher order thinking skills: Many life skills programmes (of which a large number are for profit provider) are increasingly catering to imparting 21st century skills. Such programmes, which have accelerated in light of increasing advocacy for a shift for rote learning, support inquire-based learning by building critical thinking and creative problem solving skills.

Soft Skills

Soft skills are personal attributes that enhance and individual's interactions, job performance and career prospects and hard skills which tend to be specific to a certain type to task or activity. We could say that soft skills refer to personality traits, social gracefulness, and fluency in language, personal habits, friendliness and optimism that mark to varying degrees. Soft skills complement hard skills which are the technical requirements of profession. It can also be an important part of the organization especially if the organization is dealing with people face to face. The reorientation of education which is one trust of education for sustainability also relates the importance of these so-called soft skills.

Models for implementing soft skills in higher education

Aholistic approach is used to plan and implement the soft skills among students of teacher education programme. This approach is based on the combination of several programs and main activities; formal teaching and learning activities (include all curricular and co-curricular element); support programs (academic and non-academic).

Figure (1)show the framework for implementing soft skills among students of higher institutions. In general, the development of soft skills among the students via the formal teaching and learning activities takes two models: (i) stand alone and (ii) embedded.

Stand Alone Subject Model

This model uses the approach of training and providing opportunities to students to develop soft skills through specific courses that are carefully planned for this purpose. Usually, these subjects are offered as university course (such as English language, entrepreneurship, etc) and elective courses (such as pubic speaking, critical thinking, etc). The number of courses and credits in this

category depends on the curriculum design and the requirements of the program.   The stand along subject model can also be initiated by encouraging students to sign-up several additional courses which can be accumulated to be a minor course which is different from the initial program signed-up. For example, a student who is pursuing a teacher education program is encouraged to take minor courses in management or mass communication.   However, such an approach will require an increase in the number of credits and time spent for the particular program.

Embedded Model

This model uses the approach of embedding the soft skills in the teaching and learning activities across the curriculum. It does not require the student to take special courses as in the stand alone subject mode. Instead the students are trained to master the soft skills through various formal teaching and learning activities that are planned and carried out using specific strategies and methods.   In this way, the content and learning outcomes to be achieved for the respective courses are maintained. The learning outcome related to the soft skills will be integrated and be part of the learning outcomes of the respective courses. This is the suggested model to be implemented in all the courses for the different programs in institutions of teacher education. Each element of soft skills is spelled out in the learning outcomes and then translated into the instructional plan for the semester. This is followed by implementing several teaching and learning activities such as questioning, class discussion, brain storming team work, presentation, role play and simulation, task/project, field work and site visits. In general, the development of soft skills using the embedded model requires the expertise of he lecturers to use the various teaching strategies and methods that are entirely student-centred.   It also involves active teaching and learning and students should participate actively in the activities.   Some of the appropriate strategies and

methods that are practical include (i) learning by questioning, (ii) cooperative learning, (iii) problem-based learning (PBL), (iv) e-learning. (v) Combination of Stand Alone Subject Model and Embedded Model Each of the respective models described above as its weaknesses and strengths. From the framework, planning, implementing and assessment, the stand alone model is definitely at an advantage.

This is because the course or subject is specially developed to assist students to acquire the soft skills. However, this model lacked the opportunity for students to develop and acquire soft skills as integrated with other knowledge and skills in the major discipline studied.

The existing number of credits for the respective program is also a constraint for students to sign-up for additional courses on soft skills. On the contrary, the framework, planning, implementing and assessment of the embedded model are more challenging than the stand alone model. This model requires the lecturers to master specific teaching and learning skills and then apply these skills in the teaching the respective core courses for the specific program.

However, when carefully planned and used the appropriate teaching and learning strategies, this model is more effective in developing and acquiring the soft skills as integration with the other knowledge and skills in the program. In addition, this model does not require any additional courses to the already existing courses of the respective program. Based on the weaknesses and strengths discussed, the teacher education institutes are encouraged to use the embedded model i tri compared to the stand alone model. This is because the embedded model focus on student centred learning such experiential learning, problem-based learning and gives students the practical experience as well.

Development of soft skills through support programs

This involves programs and activities that are created, developed and used to support soft skills either directly or indirectly. In general, the program and activity can be divided into two: (i) academic support and (ii) non-academic support program.

The academic support program is to help students acquire the soft skills that are associated with academic matters. As for the non-academic support program, it assists students to acquire the soft skills that are not related to academic matters but more of personality and professional development of the students. Most of the programs and activities are in the form of co-curriculum and extra co curriculum.

The fundamental courses are most important for teacher trainees to inculcate the soft skills however the ideas expressed by educational thinkers in fundamental courses, such as Gandhi, Tagore, Sri Aurobindo, Rousseau, John Dewey and others including various psychologists and sociologists are often studied in a piecemeal manner. The hard skills are most visible and tangible an relatively easy to tech capable of being measured and therefore evaluated. Soft skills are interpersonal and human relations skills in other words "people skills" which include social, psychological and communicational skills.

The research studies have also indentified some of the weaknesses among the teachers produced by the teacher education institutions. They are not so sound and lack the so-called soft skills demanded by the society. Hence, the institutions of the teacher education are urged to produce quality teachers who are equally intelligent posses excellent attitude, high ethical and moral values. Hence, reorientation of teacher education curriculum should concentrate on infusing soft skills related aspects to meet the needs of society. So, teacher education progammes have to make a conscious effort in signing courses that generate deeper

understanding of three skills viz., hard skills, soft skills and conceptual skills.

Educational implications

➢ The role of Soft Skill and Life Skill factors and improving school performance remains a critical and relatively unexplored area in Indian schools.

➢ Education potentially today depends upon to only technical skills but also the social ability to work effectively, and interpersonal, cooperation, communication and creative skills.

CONCLUSION

The institutions of the teacher education are urged to produce quality teachers who are equally intelligent possess excellent attitude, high ethical and moral values. Hence, reorientation of teacher education curriculum should concentrate on infusing soft skills, life skill related aspects

to make a conscious effort in designing courses that generate deeper understanding of these two skills namely soft skills and life skills.

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(తెలుగు రచయిత్రులు - సమకాలీన రాజకీయ, సాహిత్య ధోరణులు)

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ఉపోద్ఘాతము :

తెలుగు సాహిత్యంలో పూర్వకాలం నుండి స్త్రీ మాతృమూర్తిగా, యింటికి దీపంగా త్యాగశీలిగా పరిగణింపబడుతూ వచ్చింది. క్రమక్రమంగా తన స్థానాన్ని సుస్థిరం చేసుకుంటూ అన్ని రంగాల్లో రాణించబడుతూ వచ్చింది. కమ్మని వంటకాలు వండుతూ, వార్చుతూ మధురమైన వంటకాలు చేసే మహిళలు మరోప్రక్క రచయిత్రులుగా తమ కలాల నుండి అద్భుతమైన రచనలను జాలువారించారు. వారి వారి రచనలలో అద్భుతమైన మానవతా వాదంతో పాటుగా పలు అంశాలను ఇతివృత్తాలుగా స్వీకరించారు, సమసమాజోద్ధరణకు వారి వంతు కృషిచేశారు.

1970 సంవత్సరంలో స్త్రీల సమస్యను గురించి, స్త్రీ పురుష సంబంధాలను గురించి అభివృద్ధి చెందుతున్న నూతన ప్రజాస్వామిక చైతన్యంలో తెలుగు సాహిత్యం పలు రూపాలు ధరించింది. ప్రారంభంలో స్త్రీవాద సాహిత్య అభిముఖమైనప్పటికీ, పలురూపాలు సృష్టిస్తూ వచ్చింది. 1975వ సంవత్సరాన్ని ఐక్యరాజ్యసమితి "అంతర్జాతీయ మహిళా సంవత్సరం"గా ప్రకటించి, దానిని ఒక దశాబ్దిగా 1985 వరకు పొడిగించింది. ఈ "అంతర్జాతీయ ప్రేరణ", దేశీయ స్థితిగతులను సమీక్షించుకొని స్త్రీల సమస్యల కారణాలను అన్వేషించడానికి, అధ్యయనం చేయడానికి స్త్రీలకు ఎంతో ఉపయోగపడింది. 1975నాటికి నక్సల్బరీ పోరాటపు వెలుగులో రగులుకున్న శ్రీకాకుళ గిరిజన ఉద్యమ జ్వాల ఉత్తర తెలంగాణ జిల్లాలకు విస్తరించింది. ఈ చైతన్యం మొత్తం మీద స్త్రీల సమస్యలను మూలాల నుండి అన్వేషించడానికి, అర్థం చేసుకోవడానికి అనుకూలమైన వాతావరణాన్ని సమకూర్చింది.

"స్త్రీ అనగా శ్రీ

హరి హరులకు సంకేతం

స్త్రీ ఎదలో పాన్పు వేసుకొని

హాయిగ నిద్రించే నరుడు

అమృతాందసులందలేని

అద్వైత సిద్ధి పొందును"

– డా॥ సి. నారాయణరెడ్డి

మహిళా చైతన్యం :

1970వ సంవత్సరంలో స్త్రీల సమస్యల గురించి, స్త్రీ పురుషుల సంబంధాలను గురించి అభివృద్ధి చెందుతున్న నూతన ప్రజాస్వామిక చైతన్యంతో తెలుగు సాహిత్యంలో తెలుగు రచయిత్రులు పలు రచనలు చేసారు. 1985 నాటికి అది స్త్రీవాద సాహిత్యంగా గుర్తింపును, ప్రచారాన్ని పొంది అనంతరం అన్ని ప్రక్రియల్లోను విస్తరిల్లింది. ఆయా దేశాలలో జాతి విముక్తి పోరాటంలో "స్త్రీ విముక్తి"ని ఒక అంశంగా చేసుకోవడానికి ఈ పరిస్థితి ఉపయోగపడింది. స్త్రీలను అణచి ఉంచిన తరతరాల సంస్కృతి సృష్టించిన బావజాలానికి వ్యతిరేకంగా స్త్రీల చైతన్యాన్ని అభివృద్ధి పరచటం రచయిత్రుల లక్ష్యంగా మారింది. మానవ సంబంధాలలో, ప్రవృత్తులలో, సంఘర్షణలో సంపన్నమైన సామాజిక జీవితమే ఇతివృత్తమైన స్త్రీవాదం అనన్యంగా ప్రభావితం చేయగలిగింది.

తెలుగు రచయిత్రులు. సమకాలీన సాహితీ ధోరణులు :

స్త్రీవాద సాహిత్యానికి మౌలిక మార్పును 1870 నుండి వచ్చినప్పటికీ అంతకుముందే ఎంతోమంది స్త్రీలు సాహిత్యరంగంలో నిలదొక్కుకున్నారు. రేవతీ దేవి, నాయనికృష్ణకుమారిలాంటి వాళ్లు స్త్రీలు పడే బాధలను ఆర్ధంగా చిత్రీకరించారు. ఈ మార్గంలో కాత్యాయినీ విద్మహే, ఓల్గా మొదలైన సుప్రసిద్ధ రచయిత్రులు ముందుకు పయనించారు. సమకాలీన సమస్యల్ని జోడించి పరిష్కార మార్గం దిశగా రచనలు చేశారు. అందులో కొన్నింటిని పరిశీలింతము.

మన సమాజంలో స్త్రీత్వానికి ఎంత అనాదరణ ఉందో తెలిపే కవిత సావిత్రి రచించిన 'బందిపోట్లు'

> "పాఠం ఒప్ప చెప్పకపోతే పెళ్లి చేస్తానని
>
> పంతులు గారన్నప్పుడే భయమేసింది
>
> ఆఫీసులో నా మొగుడున్నాడు
>
> అవసరమొచ్చినా సెలవివ్వడని
>
> అన్నయ్య అన్నప్పుడే అనుమానమేసింది
>
> వాడికేం మగమహారాజని
>
> అడామగా వాడినప్పుడే అర్థమైపోయింది"

ప్రక్రియాపరంగా చూసినప్పుడు స్త్రీవాద సాహిత్యం నేడు కవిత్వ రంగాన్ని ఆశ్రయించుకొని విస్తృతంగా వస్తుంది. 1990లో 'గురిచూసి పాడేపాట' 1993లో 'నీలిమేఘాలు' అనే పేర్లతో కవితా సంకలనాలు వచ్చాయి. స్త్రీవాద కవితలో శరీర స్పృహ ప్రధానాంశమైంది. పిల్లల్ని కనడానికి, పెంచడానికి పడే శారీరక, మానసిక యాతనలు, కన్నపిల్లల్ని పురుషుడి వంశానికి వారసుడిగా చేసి, పరాయివాళ్లుగా మిగిలిపోయే స్త్రీల వేదనలు స్త్రీవాద కవితల్లో ప్రతిధ్వనించాయి.

> "చావుకీ బ్రతుక్కి మధ్య వసిరంత గీటు లేదు
>
> తలక్రిందులగా వ్రేలాడదీసిన సెలైన్ బాటిల్లా
>
> రెండు నెలల గర్భిణీ
>
> ఒక్కో బొట్టు చొప్పున
>
> మొత్తం ప్రాణం ఇచ్చుకోవడానికి వస్తోంది
>
> అడ్డు తప్పుకోండి అడ్డు తప్పుకోండి"
>
> – లేబర్ రూమ్ – కొండేపూడి నిర్మల (1989)

ఇది మాతృత్వ నిరాకరణ అనిపిస్తుంది. మాతృత్వాన్ని నిజంగా ప్రకృతి ప్రసాదించిన వరంలాగానో, అద్భుతమైన స్వభావంలాగానో చూడాలనుకుంటే అది స్త్రీలకు పునరుత్పత్తి స్వేచ్ఛ ఉన్నప్పుడే జరుగుతుంది. ఈ ఆకాంక్షను అభివ్యక్తీకరించిన కవిత 'లేబర్ రూమ్'

యింటో భార్యనుండి వీధిలో పరాయి స్త్రీ వరకు తన గుప్పిట్లో ఉంచుకోవడానికి పురుషునికి భారతీయ సంప్రదాయ నియంత్రుత్వ అధికారాలను ఇచ్చింది స్త్రీని శరీరం పేరుతో కట్టడిచేసింది. ఈ భావాలనే జయప్రభ "పైటను తగలెయ్యాలి" కవితలో వ్యక్తం చేశారు.

> *"నేను నడిచే శవాన్ని కాకుండా వుండాలంటే*
>
> *ముందుగా పైటను తగలెయ్యాలి"*

నిర్బంధమైన సంప్రదాయం మీద ఈ కవిత ఒక ఆగ్రహ ప్రకటన. పురుషాధిక్యత ప్రపంచం మీద తట్టుకోలేనంత కోపం. స్త్రీ మీద కోపాన్ని పురుషుడు శారీరక దౌష్ట్యంతో ప్రదర్శిస్తున్నాడు. దాని నుండి విముక్తిని కోరే కవితలు అనేకం వచ్చాయి.

యింకా పాటిబండ్ల రజని, శివలెంక రాజేశ్వరీదేవి, మందరపు హైమావతి మొదలైనవారు ఇటువంటి కవితలు రాస్తున్నారు.

"ఎగిరే పావురం"అనే కవితలో డా॥ తుర్లపాటి రాజేశ్వరి విడాకులిచ్చే భర్తకు నేటి మహిళ చెప్పవలసిన సమాధానాన్ని ఈ విధంగా చెప్పింది –

> *"రాస్తున్నా – నేనే నీకు చెల్లుచీటీ*
>
> *ఆర్ద్రతా – మాధుర్యాలనేవి లేక*
>
> *పెళ్లంటే ధనంతోనూ, నీచ వాంఛలతోనూ*
>
> *ముడివడినప్పుడు......*
>
> *నాకీ భార్యత్వం వద్దంటేవద్దని"*

కుటుంబ హింసను జీవితకాలం భరించనవసరం లేదనే చేదు నిజాన్ని అక్షరీకరించింది.

ఈ విధమైన కవితల్లో మొదటిది దేహసమస్యల వస్తువయితే, రెండవది డొమెస్టిక్ లేబర్ ఆర్థిక వ్యవస్థలో ప్రత్యక్ష సంబంధం లేకపోవడం వల్ల ఇంటిపని అనుత్పాదక శ్రమగానే ఉండిపోయింది. దీనివల్ల శ్రమంతా డబ్బు తెచ్చేవాడిదే, కాని నిజంగా ఇంట్లో శ్రమపడేవాళ్ళకు బాగస్వామ్యం లేకుండాపోయింది. ఎంతో అభివృద్ధి చెందిన దేశాలలో కూడా పరిస్థితి దీనికి భిన్నంగా లేదు. ఈ స్థితి మారనంతవరకు కేవలం వివక్ష మాత్రమే కాదు, దోపిడీ కూడా నిరాటంకంగా సాగిపోతుంది. డొమెస్టిక్ విశ్వరూపాన్ని తెలుగులో కవిత్వీకరించిన తొలి ప్రయత్నం విమలది.

> *"వంటింటి సామ్రాజ్యానికి మా అమ్మే రాణి*
>
> *అయినా చివరకు వంటింటి గిన్నెలన్నిటిపైనా మా నాన్న పేరే"*

నవమాసాలు మోసి పాలిచ్చి పెంచిన పిల్లలే, పితృ స్వాతంత్ర్య భావజాల వ్యవస్థలో పురుషులుగా ఎదిగి అధికృతతో తల్లులనే పాలించే జాతిగా మారటం అనే సామాజిక దురన్యాయంపై ఈనాటి మహిళా చైతన్య కవిత్వం ఈ నాటి మహిళా చైతన్యకవిత్వం రూపుదిద్దుకుంది.

ఎస్.వి. రంగనాయకి, ఎన్. అరుణ, నాగరాజ్యలక్ష్మి, డా॥ సి. భవాని దేవి మొదలైనవారు ప్రస్తుత

కాలంలో స్త్రీ చైతన్యాన్ని, మహిళల తిరుగుబాటును, మహిళా అభ్యున్నతిని కోరుకుంటూ రచనలు చేస్తున్నారు. డా॥ పి. శ్రీదేవి "కాలాతీత వ్యక్తులు" నవలలోనూ, గెద్దడ కస్తూరి "రక్తమా నీదేకులం" అనే కథానికలోనూ సామాజిక సందేశంతోపాటు, పలు సాహితీ ధోరణులు కనిపిస్తాయి.

ముగింపు :

    ఈ విధంగా తెలుగు సాహిత్యంలో రచయిత్రులు సమకాలీన సమస్యలను తెలుపుతూ, వాటి సమస్యా పరిష్కార మార్గం సూచించడంలో కృతకృత్యులవుతున్నారు. ఇది హర్షించదగ్గ పరిణామం సమకాలీన రాజకీయ, సాహితీ దోరణుల్లో వారి కలాల నుండి పదునైన రచనలు వస్తున్నాయి. ఇంకా స్త్రీపరమైన అనేకానేక అంశాలకు పరిష్కారం సూచించే దిశగా ఆలోచింపచేసే రచనలు ఇంకా రావాలి. పురుషులకే నూటికి నూరుశాతం తప్పులు ఆపాధించకుండా స్త్రీలలో కూడా కానవచ్చే దోషాల్ని సూచించాలి. కాబట్టి ముందు తరం రచయిత్రులు ఇటువంటి రచనలు చేయవలసిన అవసరం ఉంది.

OBJECTIVES OF TEACHINGAND LEARNING ENGLISH IN INDIA

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The objective of teaching English in India should not be 'producing bookworms' or 'linguistic robots'. What is important is to motivate the students, by creating awareness amongst them regarding the importance of English and then gradually helping the student to attain his goal. The basic objective should thus be, to make the student independent. It has rightly been said, "If you give an individual a fish you feed him for a day, but, if you teach him to fish you feed him for life." It is up to the teacher to make the student realize that gaining competence in English he shall hold the master-key to success in the contemporary world.

English though a foreign language it's now as much an Indian language as any other. English has been taught in our schools and colleges for many decades. It occupies the position of associate official language. It is used widely as a link language in offices and among the educated people. It is not only a compulsory subject at school, college and university but is also the medium of instruction to the large extent. It is the language of science and technology. It occupies the position of a second language in the school curriculum and for higher education. English language has been assigned the role of library language. Without exception every secondary school child has to learn English as a subject, usually for six years but in some cases for three years only.

This contemporary position of English in India shows English language teaching occurring at all levels of Education, mainly as a second language. This brings us to our present topic of interest - a history of English language teaching in India.

English language teaching as a discipline has come into its own during the past several decades both in India and abroad and along with it English language teaching historiography also has gained prominence. It is now possible to cite a large body of literature devoted to this area of study. But in India, even though English language teaching has been going on for many decades there is no document, which contains a comprehensive history of English language teaching in India. Now English language teaching has gained the status of a new discipline and also has gained relative importance on our educational programmes. It is felt that a comprehensive history of English language teaching in India is needed.

"*I would have English as an associate, additional language, which can be used not because of facilities, but because I do not wish the people of non-Hindi areas to feel that certain doors of advance are closed to them. So I would have it as an alternative language as long as people of India require it*"

- Pt. Jawaharlal Nehru,

(from the Convocation Address, delivered at University of Pune on 27th Jan. 1955).

Conventionally, teachers of English teach the foreign language either by explaining the meaning or by translating the text in English into the regional language, i.e. in L1. This sort of teaching helps the learner in learning the text and simplifies the job of the teacher in explaining the text. But in reality, the learners are incapable of weaning themselves away from the mother tongue, because the teacher has also made him more dependent on mother tongue. As such, the students have not acquired any skill of the language and not confident in English. The situation will be worse in the areas of productive skills, i.e. in speaking and writing. We all know that when a student enters college, coming from a regional medium school, coping with the English medium

instruction is his greatest difficulty. As such college teachers are compelled to teach through regional language. If the teachers refuse to use translation, then they cannot reach the students through their teaching and students resort to the use of bazaar guides, which have the translated and transliterated version of the essays. Of course students feel comfortable through the language, which they have acquired naturally, as a part of the process of growing up. As such in a multi-lingual country, it is a difficult problem to reconcile the use of regional languages with a common language.This situation generally prevails in most of the educational institutions and we cannot squarely blame the students and teachers. Many Commissions for educational reform in India have presented their contemplated reports and we are yet to achieve the much-expected reform. The main reason for such a situation could be the absence of any concrete and applicable language formula and even the existing ones could not be implemented in to for want of enough cooperation and support from Political institutions, Central and State Governments and of course from Universities too.

As a result, teachers are made to teach English language without any clear-cut and achievable aims. To add fuel to fire, teachers of English are given the conventional course books, prescribed by the authorities of literary texts. However realization is growing to the dire need to modify English language teaching to suit a multilingual and multicultural country. Moreover, the objectives of teaching English language should be narrowed down to the application of the language by the students in their day-to-day conversation and to make the student aware of discourse organization and to develop proficiency in manipulating and producing discourses well-formed in terms of grammar, meaning, intention and contextual appropriateness.

But then, conservatively or conventionally most of the teachers are happy at explaining the meaning of a text in English language, as if it is a subject. Due to the system of education, due to the non-availability of

the standardized text books, due to the dearth of regular training to teachers of English and also due to the lack of preparedness among teachers, opportunity to offer a skill based teaching programme is mostly absent. Allen and Corder rightly remark,

"If language is knowledge, then learning it will share some of the characteristics of learning, say, Chemistry; if it is skilful behaviour, it will be something acquire through practice; if it is an object, we may get to know it through descriptions or thorough descriptions or thorough use, while if it is a social event, we shall wish to participate in the social interactions in which it is manifest"

('Error Analysis and Inter-language', Oxford University Press, p.2, 1973).

As such teachers of English language must realize that their role is to help the students to acquire the skills of language and once they achieve it, they can manage any subject and any situation.

Teachers have to tap the hidden resources of the students by infusing or booting up the confidence level of the students. Teachers have to create the situation in such a way to enable the students to enjoy the skill oriented language drills and at the same time learn the peculiarities and the techniques of language. For this the teacher has to acquaint themselves with the salient features of the language so that they can develope an insight into how the language works. Without this, it will be very difficult to see the rays of success in any of their efforts in imparting language items.

Among the four skills of a language- listening, speaking, reading and writing, the conventional teacher concentrates much on writing and reading. Very rarely a few minutes are spared to speaking and listening. The excuse usually made by the teachers is lack of time. But in the words of John Haycraft,

"To be able to use the language to convey thoughts, intentions, wishes, information, etc. a person needs a mastery of various skills of language."

A course in English Literature should concentrate on improving the language proficiency and literary competence of learners. But the present system trains learners only in mastering the literary content of the syllabus. No efforts have been taken to improve their Listening, Speaking, Reading and Writing (LSRW) skills, Study skills and Dictionary skills and to strengthen their critical sensibilities. So there is a need to train students with an alternative syllabus, which will help learners develop their communication skills and sharpen their literary sensibilities as well.

In the rating of LSRW skills and Study skills, both the students and teachers have acknowledged the fact that the former lacked minimum language abilities and skills required to follow lectures in English and study the prescribed texts. But then while estimating the LSRW skills and study skills, the group mean of the variables indicates that students have rated their skills in 4-points scale higher than the evaluation of their teachers. Here the rating of the teachers can be taken into consideration, as it is a natural tendency to rate oneself high in self -rating.

English plays an important role in producing and promoting changes and accepting new trends in the modern Indian society. English generates modernity, imparts new knowledge and skills and gives a formal system of living which is found in the developed countries of the world. Majority of the standard journals and magazines are published in English. It is true that if we have knowledge of reading, writing, understanding, speaking English, we would have better knowledge of science and technology, social sciences, industry and health. Language experts agreed that English learning is a very important aspect of life.

English has enjoyed and still enjoys a very important place in the curriculum of Anglo-Vernacular schools in our country. It has been used as an official language, the language of administration of courts, legislature, etc. It is a language which has a rich literature and also covers the vast spectrum of science and technology as well as industries and commerce. English also plays an important role in the national life of the country. It still continues to influence the life and profession of the majority of educated Indians in every walk of life. The teaching of English has travelled a long way during fifty years in free India but the controversies and contradictions remain the same as before. The fate of English language teachers and learners does not seem to be very bright, if the activities of the various academic bodies at the boards and the universities level are considered seriously. The academic positions are over-shadowed by non-academic ones and the teaching of English remains an activity, questionable in its relevance. We have had a variety of English language teaching programmes in our country at the secondary and tertiary levels : programmes organized by the District Centres, ELT Institutes, Regional Institutes of English, Regional Colleges of Education, Central Institute of English and Foreign Languages, etc. In addition, these institutions have been organizing a variety of workshops, seminars, conferences and short courses. We have had a number of review type evaluations of ELT programmes. ELT programmes in our country may be viewed as a network of process - creating English based, high English and low English, English centred switching and mixing. These programmes are designed to help learners learn how to mean in a multi-lingual setting. In making ELT programmes effective we may use the following suggestions - language choice and language ordering in a multi-lingual setting, the role of English as a source language, the status of English as an associate national official language, the function of English as an international link language, etc.

In the educational scenario of India today, the abilities of teaching and learning English language seem to be sadly lacking. This lacunae can be attributed to a number of factors, the major one being the lack of motivation on the part of students due to various reasons such as - lack of awareness regarding the importance and scope of the English language, faculty teaching techniques, lack of interest of knowledge of books which may not have practical application, stereotype kind of syllabi which may not cater the needs of the students. The stalwarts from the field of education need to realize that what is needed is a revolution in the present syllabi which creates bookworms and not efficient communicators. The objective of teaching as well as learning English in India needs to be defined in clear terms.

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AGGRESSION AND MENTAL TOUGHNESS AMONG FEMALE HOCKEY PLAYERS

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Abstract:

This study conceptualized to look at the hostility of Indian female field hockey players at three distinct levels of rivalries. To chip away at the reason for the study 150 female Indian field hockey players played at various levels of rivalries were chosen. The age of the members extended from 16 to 27 years. With the end goal of the present study three strata (levels) were made, between university, north-zone intervarsity, and all India intervarsity hockey players. Stratified arbitrary testing method (proportionate) was done and 50 members were chosen for every stratum. Hostility of the subjects was measured by utilizing sports animosity test stock built and institutionalized by Kumar and Shukla (1984). One Way Analysis of Variance (ANOVA) was utilized to discover the huge distinction among between university, north-zone intervarsity and all India intervarsity level female field hockey players. To know more about the example of contrasts existing inside an arrangement of populace means, Post-hoc test were utilized. The noteworthiness was tried at 0.05 level. Aftereffects of the study demonstrated that huge distinction exists among between university, north-zone intervarsity and all India intervarsity level female field hockey players on animosity. Consequently it can be presumed that hostility as a standout amongst the most imperative mental segment that impact the execution of the female field hockey players.

Catchphrases: Aggression, field hockey, female, between university, north-zone intervarsity, all India intervarsity

Introduction:

Aggression characterized as the fiery ambush on vitalize or lifeless articles for a reason. The way of hostility in games ought to be viewed as the level of equivocalness with respect to animosity in the games. Animosity is constantly related by some negative passionate state. The feeling which is called as annoyance is typically excited by some incitement (Alderman, 1974)[1]. Sports clinicians recognized two sorts of animosity in game, initial one is antagonistic and second one is instrumental (Grange, and Kerr, 2010). In antagonistic hostility a members deliberately attempt to damage his/her rival physically.[2] Instrumental hostility is utilized to accomplish certain objectives, it can be to handle harder to pick up ownership of the ball in hokcey (Jones, Bray, and Olivier, 2005). It is otherwise called directed animosity, this is on the grounds that an individual can turn it on and off and control there demeanor and this is not connected with indignation (Berkowitz, 1962; Katko, Meyer, Mihura, and Bombel, 2010).

Therapist, physical teachers, and others have broke down the animosity conduct of competitors and games onlookers with a specific end goal to better comprehend the impact of such movement upon members. Some natural scholars trust that investment in game gives a socially satisfactory outlet to animosity without the going with sentiment blame. On the off chance that a competitor has a high drive to animosity, particularly in conclusion games, for example, football and hockey and in pugilist game, for example, boxing and judo. Some have estimated of animosity that a competitor may get away from the blame emotions that outcome from rough articulations of hostility, giving that the competitor plays by the tenets (Rani, and Mathana, 2010). Various

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[1] Sardar,S.,& Das, P. K.(2010).Violence and aggression behaviour of spectators. AMASS Multilateral Research Journal, 3(1), 71-82.
[2] Mishra, V. (2001).Assessment of aggression and anxiety among players of selected sports. Indian Journal of Sports Studies, 6(2), 13-35.

reasons have been proposed to clarify the reason competitor take part in retaliatory hostility in game. Animosity that rise above hard play the soul and significance of the standards. These reasons incorporate those that concur with the different hypotheses of animosity that have been talked about and in addition different operational and situational variables (Kumar, Kumar, and Maurya, 2010). [3]

Most analyst have seen forceful conduct. Unfriendly animosity which is anticipated to damage rival or instrumental hostility, which is coordinated at accomplishing an objective (Razeena, 2004). Social inclining perspective (Bandura, Ross, and Ross, 1961) states that the genuine execution of forceful act is needy upon the individual's assessment of support that will be exhibited on the bases of the reactions which might make to a given circumstance. Hostility as a smoldering issue in games has gotten to be as vital piece of contemporary game society. Mentor and mentors have ended up mindful to a players capacity to withstand and answer to tormenting.

 It is acknowledged that players advance principally as a result of their capacity to challenge. Durability and readiness to challenge have gotten to be crucial in setting up a positive character. Sardar and Das, (2010) states that such mentalities propose a high level of forcefulness in game. Exact examination has distinguished extreme mindedness and forcefulness as an identity quality which concur emphatically with athletic capacity and achievement (Salam, and Sardar, 2010; Rascle, Traclet, Souchon, Coulomb, and Petrucci, 2010). Therapists have performed a large number of studies concerning issues identified with hostility, however issues identified with animosity to sports have once in a while been contemplated on an observational premise.

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[3] Kumar, P.U. & Chandrappa (2011).A comparative study on anxiety and aggression among athletes and non-athletes. International Journal of Health, Physical Education and Computer Science in Sports, 2(1), 294-302

Kumar and Chandrappa (2011) state that competitors are forceful as a result of vicarious and operant fortifications. They see different players respected as far as cheers and high monitory prizes and compensations for being forceful and rough and they go with the same pattern. Mudimela (2010) observed champion competitors to be essentially recognized than different competitors as the previous showed high animosity. Sidhu, Singh, and Singh, (2011) showed that hostility has been observed to be altogether connected with accomplishment in athletic aptitude. Gazar, and Raziek, (2010) found that the gold medallist wretsler were more forceful than the non medallist wretsler. Mishra (2001) discovered high accomplishing fefefemale competitors are more forceful when contrasted with low achievers[4]. Mishra (2010) discovered sprinters having high forceful propensities performed preferable in focused games over the kho-kho players having low forceful inclinations. In India hockey is played by all levels of rivalry, the reason for this study is to know, at various level of cooperation how a player changes his forceful conduct. At that point we can just guide and propose our mentors and players about the need and significance of the animosity in hockey. 2. Techniques AND MATERIALS 2.1. Members

The study was led on 150 female field hockey players who played at various levels of rivalries in India. The age of the subjects ran from 16 to 27 years, and they don't have any wounds reported inside most recent six months on the date of information gathering. The examples were gathered arbitrarily from various rivalries in various time. With the end goal of the study three rivalries level were made, initial one was between university (those players were chosen who were not playing north-zone intervarsity and all India intervarsity), second one was north-zone intervarsity (those players who were not playing all India

[4] Sardar,S.,& Das, P. K.(2010).Violence and aggression behaviour of spectators. AMASS Multilateral Research Journal, 3(1), 87-92.

intervarsity) and last one was all India intervarsity hockey players. Stratified irregular examining system (proportionate) was done and 50 members were chosen for every stratum.

Instruments Sports hostility stock developed and institutionalized by Kumar and Shukla (1984) was utilized to evaluate the animosity of the chose subjects. 2.3. Methodology of Data Collection The examiner at first reached to arranging powers of various competitions and got authorization to gather the information. The chiefs and mentors of the separate groups were reached by and by and were clarified the reason and criticalness of the study and demand to allow their individual colleagues to take as subjects for this study. Advantageous meeting dates, time and place masterminded with groups administrators, mentors and chiefs. Before filling the survey directions imprinted on the poll were clarified verbally so that the subjects don't delay to give their legitimate, individual and plain reaction in the right way. Prior to the filling genuine surveys, every member finished a foundation data, for example, age, cooperation in diversion, and level of support. [5]

The surveys were reacted in a tranquil, agreeable, and recognizable environment at the member's lounge rooms and grounds. 2.4. Factual Analysis to discover noteworthy contrast among between university, north-zone intervarsity and all India intervarsity level female field hockey players on hostility ANOVA was utilized. To know more about the example of contrasts existing inside an arrangement of populace means, Least Significant Difference (LSD) Post-hoc test were utilized. The centrality was tried at 0.05 level. All the measurable methodology was performed with the assistance of SPSS (V.19). 3. RESULTS Table1. ANOVA synopsis on animosity among between university, north-zone intervarsity and all India intervarsity level female hockey players

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[5] Ibid

Wellspring of Variance df SS MSS F Between Groups 2 102.17 51.08 7.01*

Within Groups 147 1070.83 7.29 Total 149 1073.01

*Significant. Tab. F.05 (2, 147) = 2.08 As recorded in the above table 1 that registered estimation of F (7.01) is more than the organized estimation of F (2.08), henceforth there is a huge distinction exists among between university, north-zone intervarsity and all India intervarsity level female hockey players on animosity. Further to break down which level of players would be wise to hostility, Least Significant Difference (LSD) a Post-hoc test was performed and its outcome is introduced in the accompanying table 2. Table2. LSD among between university, north-zone intervarsity and all India intervarsity level female hockey players on Aggression Mean Value MD Sig.

AllIndiaIntervarsity North-zone Inter-varsity Inter Collegiate

13.30 11.58 1.72*

0.000 13.30 11.52 1.78*

 0.001 11.58 11.52 0.06 0.762 *

Significant at .05 level Pair savvy mean examination is exhibited in the table 2, and it is uncovered that there is critical distinction between All India intervarsity and north-zone intervarsity (MD = 1.72); All India intervarsity and Inter-university (MD = 1.78); though no huge contrast was recorded between north-zone intervarsity and between university (MD = 0.06) level female hockey players. 4.

Exchange The reason for the study was to decide the critical distinction among between university, northzone intervarsity and all India

intervarsity level female field hockey players on hostility.[6] The consequences of the study uncovered that there was critical distinction among between university, north-zone intervarsity and all India intervarsity level female hockey players on animosity. At the point when mean-wise examination done it was found that critical distinction exist between All India intervarsity and north-zone intervarsity; All India intervarsity and Inter-university; though no huge contrast was archived between north-zone intervarsity and between university level female hockey players.

This outcome reported that as level of rivalry increments at the same time animosity level of the players likewise increments.[7] The discoveries of this study are upheld by the discoveries of Peter (2014) and Kumar (2013). Mudimela, (2010) likewise reported same kind of results in his study he concentrated on the effect of level of interest on animosity and execution among soccer players. Ali, Hussain, and Rahaman, (2010) additionally discovered same kind of results when they look at animosity of Manipuri hockey players. Barimani, Sina, Niaz-Azari, and Makerani, (2009) reported that normal measure of hostility was lower among the competitor understudies than non-competitor, however there were no huge respect.

Gazar, and Raziek, (2010) in their study found there were sure relationship between's the quantity of years of practice and game hostility for male wrestlers, additionally there were factual noteworthy contrasts between positioning of cutting edge wrestlers and positioning of less propelled wrestlers in game animosity for wrestlers of less progressed. 5. CONCLUSIONS On the premise of the examination of

[6] Sidhu,J.S., Singh, K.,& Singh, C. (2011). Anxiety and aggression level between male and female athletes at university level: An empirical study. Journal of Health and Fitness, 3(1), 71-73.

[7] Alderman,R. B.(1974). Psychological behavior in sports. Philadelphia: W. B. Saunders Co. [

the information and acquired results it was found that there was essential change in players partaking in various rivalry level in their games animosity.

Conclusion:

 The discoveries of the study uncovered that there was critical distinction among between university, north-zone intervarsity and all India intervarsity level female hockey players on hostility. It was presumed that all India between varsity players had larger amount of animosity and bury university players had lower level of hostility among the gatherings. One of the principle suggestions of the exploration is the need to concentrate on the mental planning for female hockey players, and additionally the requirement for a game analyst to work with national groups.

THE PLACE OF MOTHER TONGUE IN TEACHING ENGLISH

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Abstract

Most of the fortunate children of the world listen to the voices of their mother first than anybody else's soon after they see the first light of the day. It is therefore obvious that the mother's voice which is generally acclaimed as mother-tongue creates a great impact on the children. When the children start learning they understand, remember, realize, react and reflect in their mother-tongue better and faster. But to cope with the globalized world afterwards they become bilingual and then multilingual. The linguistic experience in the home becomes the foundation of their future learning. So judicious use of mother tongue L_1 will help to learn foreign language L_2 with ease and acquire proficiency in it.

Key Words : *L_1, L_2, Proficiency*

INTRODUCTION

The place of mother tongue in teaching English is a controversial matter. There are two extreme views regarding this. Some experts advocate translation, or the extensive use of the mother tongue as the most effective way of teaching foreign language and the others maintain that the mother tongue has no place at all in the English classroom and hence, the effectiveness of the Direct Method in teaching English. But there is the third and reasonable view that maintains that translation or the use of mother tongue cannot be completely shut out from the English lesson and that a proper and judicious use of mother tongue in teaching the English lessons would certainly help the learning of English.

Arguments in favour of the use of Mother Tongue.

Several articles which have appeared in the ELT press in the last two decades indicate a revival of interest in the use of the mother tongue in TEFL, after the almost total dismissal, in the wake of the growth of the communicative movement, of translation as a method of teaching a foreign/second language. In these articles, interestingly enough, the use of the mother tongue is no longer recommended as a doctrine of compromise in second or foreign language teaching; it is looked upon as a resource, which the authors insist should not be ignored.

Widdowson, a propoinent of the communicative approach, himself acknowledged the role of the mother tongue in L_2 teaching when he said that translation could be used to present the second language 'not as the acquisition of new knowledge and experience but as an extension or alternative realization of what the learner already knows'. The mother tongue has ever since received attention and is regarded by several theorists as useful.

The use of L_1 and L_2 teaching is advocated for at least three reasons (1) Firstly it is a learner – preferred strategy. Learners for instance very often attempt to equate a target language structure or lexical item with the closest L_1 correlate whether the teacher permits translation or not.

Secondly, permitting learners to use their mother tongue is a humanistic approach. It allows them to say what they want to say. In any case, preventing learners from engaging in learning activities in which they have more faith is not a sound pedagogic principle

Thirdly, strategies involving the use of mother tongue are efficient in terms of time spent in explaining.

Atkinson who puts forth these arguments in favour of what he calls 'Judicious use of the mother tongue' asserts that ignoring the mother

tongue in a monolingual ESL classroom is to teach with less than maximum efficiency.

Dancher insists that translation / transfer is a material phenomenon and an inevitable part of second language acquisition.

Cook (2001), Tang (2202) and Wells (1999) have advocated that the occasional use of L_1 by both students and teacher increases both comprehension and learning of L_2.

According to Nation (2003), "The L_1 needs to be seen as a useful tool that like other tools should be used where needed but should not be over used.

There are four main occasions where it is commonly seen the teacher benefit from the mother tongue of the learner and it is actually quite useful to do giving, instruction, explaining meaning of words, explaining complex ideas and explaining complex grammar points. These are all meaning focused inputs and usually learners face difficulty in understanding them in L2.

Moreover in terms of vocabulary learning, there is a lot of criticism towards bilingual word lists or dictionaries. In fact it has been proven that learners grasp new words easier and more successful when they see the L_1 equivalent of the particular vocabulary item.

Another reason why the teachers use the mother tongue of their student is, the occasions which they want to be sure that what they have intended to say has been completely and clearly understood by the learner. Giving the instructions in the mother tongue of the learners would definitely save time, energy and avoid failures.

Arguments against the use of Mother Tongue

The proposals of Monolingual approach believe that the banishing of mother tongue and the use of target language solely in L_2 classrooms increase the learning of the target language. They believe that L_1 has

no essential role in the English as second language classroom and that it might deprive students valuable input in the L_2 and impede progress.

It has been argued that learners acquire foreign languages following basically the same path they acquire their mother tongue. According to him, the use of mother tongue in the learning process should be minimized. In fact a lot of teachers believe that the L_1 use of (EFL) classes must be discouraged because of reasons . . . .

- Use of L_1 may become a habit that both learners and teachers may resort to whenever a difficulty is encountered.

- L_1 may be sometimes misleading when learning the target language. In spite of the existence of universal governing language systems, languages differ more or less.

- When using L_1 to teach L_2 errors may emerge due to L_1 transfer. Examples of errors range from vocabulary to grammar. We cannot give the mother tongue equivalent which exactly means the same as the English word.

- We can observe the negative influence of L_1 in certain areas like pronunciation. Majority of the Indian languages are phonetic which means that the sound and spelling of the words correspond with each other. The learners may encounter difficulties related to the syntactic structures of sentences. The word order in the sentence of the M.T. differs from that of English sentence. The grammatical system of English also differs from that of mother tongue. The use of prepositions is another problem. Indian languages do possess phonetic spelling. In mother tongue the student reads as they writes. He carries the same habit into English which does not have a phonetic spelling in all the cases. When mother tongue is badly used, it will have a negative influence and retards the progress. But the proper judicious use

of mother tongue in teaching English will have a positive influence.

As a step towards effective language teaching a teacher needs to create interest and love for the language among the students. The teacher in India should utilize the resources properly and try to make the best use of opportunities available in our educational settings.

CONCLUSION :

Even though there are two extreme view regarding the place of mother tongue in teaching English (L_2) i.e (i) Strong arguments against the use of translation as a method of teaching (ii) equally strong arguments in favour of use of the mother tongue, the teacher should adopt the third view i.e. the proper and judicious use of mother tongue.

It is evident from the aforesaid discussion that the use of mother tongue in teaching English is inhabitate. In a steady process the students at different level foster linguistic, cultural and intellectual vigour. The linguistic experience in the home often becomes the foundation of their future learning. Thus instead of using mother tongue frequently all through the class, the teachers very sensitively, judiciously and methodically handle it in monolingual, bilingual and multilingual classes with care and concern.

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COMPARE SELECTED STRENGTH PARAMETERS BETWEEN OFFENSIVE AND DEFENSIVE VOLLEYBALL PLAYERS

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ABSTRECT

The purpose of the study is to compare selected strength parameters between offensive and defensive volleyball players. To achieve this purpose of investigation 20 offensive volleyball players, who served as setters and spikers, and 20 defensive volleyball players who served as blockers and diggers were selected. The subjects were selected from different colleges in Andhra Pradesh, who were participated at inter-collegiate level competitions. The subjects were in the age group of 18 to 22 years. Totally forty college volleyball players. who participated in inter-collegiate level tournaments were selected for this study. The selected subjects were tested to find out their ability in strength using standard tests. Comparisons were made between the scores and the differences were considered as difference in their abilities. Statistical significance were determined through 't' test. In all cases 0.05 level was fixed.

Key Words :- Offensive and Defensive Volleyball players, Strength parameters.

INTRODUCTION

Scientific research in the field of physical education and sports is required for a systematic development of physical education and sports. Throughout the world many different games have been played with a ball. In some games players use a part of the body to propel the ball

while in other games players play with some equipments such as racquet, bat and stick.

Competition in all fields of life especially in the field of physical education and sports have increased so must that one can not excel in sports other without taking any advantage of his own physique. A person is said to be fit from activity only if his structure firms it.

Endurance, strength, power, flexibility, agility and speed are important general physical fitness components needed for team games like volleyball, football, hockey, basketball and various other games. The study of physical fitness has an important and valuable place in modern society due to its close relationship to every individual. It is the most important objective of physical education and an essential requirement of human performance. The individuals who are physically fit with proportional and developed body are considered healthy. He has adequate vascular strength for his need and this enables him to perform the activities with a high degree of motor proficiency. The physically fit individuals usually functions with maximum efficiency. The human body is a machine of wonder where complexity is capable of strong and forceful movement. This machine is made up of more than two hundred bones to which are attached more than six hundred muscles.

Strength

Strength helps the muscles to exert force an physical activity can be performed without strength. When strength is lesser other life functions are handicapped. The functioning capacity of vital organs such as these of respiratory, circulatory and digestive systems, depend upon the condition voluntary muscles. Strength in hands to pull push and to life objects.

Strength in legs helps to carry body weight and to carry extra burdens. Muscular strength is reduced or last by in activity various phases of muscle length differentiated follows.

a.   Isometric contractions in which the length of the muscles remains the same.

b.   Concentric contraction which involves shortening of muscles and

c.   In concentric contraction of which the length of the muscles increases while its tension may remains.

Vertical jump

According to the Clarke, "Vertical jump is primarily a tests of the ability of the body to develop power in relation to the weight of the individual himself. At present, it is generally accepted as a measure of explosive power".

It has been found that the vertical jump can be used as a measure of many other factors, such as neuro-motor efficiency, dynamic strength and explosive energy. Mccloy used the vertical jump.

Standing Broad Jump

It is the power or capacity to jump horizontal jump is used as a test measure the explosive power and leg strength which occupies a prominent place and plays a vital part in the daily activities of man. It is an essential factors for indulging in almost all game and sports".

Jumping ability is one of the basic physical fitness components, which is required by every sports men and women. Jumping ability basically depends upon the lower body strength, explosive power, vertical jumping ability etcetera.

Game of Volleyball

Volleyball has developed into a highly competitive sport which requires a high level of physical, physiological and psychological fitness. The game at a high level of competition, requires quicker sudden movements and fast reaction. Volleyball matches have no time limit and matches can last for several hours, if the teams are evenly matched.

Successful play in volleyball is not the outcome of power alone but it is the product of the combined display of power and tactical abilities. Modern game of volleyball is characterized by accuracy, concentration and cleverness.

Volleyball has changed beyond recognition in the past three decades from an unorganized sport into a highly competitive, requiring a high level of physical fitness, mental alertness and mastery over techniques.

"Volleyball has a great need for volitional qualities, with equal technical and tactical mastery the team whose players show the greatest desire for victory will win.

Volleyball is characterized mainly by its dynamic work of broken intensity. There are periods of significant muscular activity in alteration with periods of relative relaxation intensity of work. During the time of play, the intensity of play oscillates from moderate to maximum. The time playing approaches three hours during which intensity increases to a points where, pulse rate reaches 200 beats / min and weight loss goes upto 2.5 to 3 Kgs.

In every tactical move in volleyball, one depends on team work and the individual skills, good passing, setting, spiking, jumping, controlling the ball, participation and speed to the ball and keeping the

eyes on the ball. Tactics will succeed only through individual fundamental skills and with players thinking as a team.

Every player must know the requirements of his position and skills and he fits in with other members of the team, especially with those most closely connected with him. So player must possess the skills of the game and is physically fit to execute the same. If any of the above is lacking he is not a complete player.

REASONS FOR SELECTION OF THE STUDY

As of any game, the volleyball players were broadly classified into two, namely, offensive and defensive. Depending upon their positions, the requirements of **strength parameters** of these players are bound to differ. In this study, the researcher was interested to scientifically find out whether there exists any differences on speed and strength of the offensive and defensive volleyball players.

STATEMENT OF THE PROBLEM

The purpose of the study is to compare selected strength parameters between offensive and defensive volleyball players.

HYPOTHESIS

It was hypothesized that there would be significant difference between offensive and defensive volleyball players on strength of the volleyball players.

SIGNIFICANCE OF THE STUDY

1. The study was significant in making an attempt to find out the status of strength of offensive and defensive volleyball players.

2. This study may help the coaches, physical educators to select players for offensive and defensive positions in volleyball.

3. It may improve co-ordination and perfect rhythm in a particular pattern of movement which were a part of the game.

4. The study may help the coaches to design different training to improve strength of the volleyball players.

DELIMITATIONS

1. This study was conducted only on 20 offensive players and 20 defensive players.

2. For the purpose of the study, volleyball players who used the skills of block and dig were considered as defensive players.

3. For the purpose of the study, volleyball players who used the skills of set and spike were considered as offensive players.

4. The subjects selected were within the age between 18-22

LIMITATIONS

1. The physiological factors such as diet and nutritive practice were not taken into consideration.

2. The investigator did not consider humidity temperature and other environmental conditions.

3. Regular activities and day to day affairs such as sleeping, studying etceteras of the subjects were not taken into consideration.

METHODOLOGY

The purpose of the study was to compare selected strength parameters of offensive and defensive volleyball players. The selection of subjects, orientation of the subjects, research design, collection of data and statistical technique used are detailed in this Study.

SELECTION OF THE SUBJECT

To achieve this purpose of investigation 20 offensive volleyball players, who served as setters and spikers, and 20 defensive volleyball players who served as blockers and diggers were selected. The subjects were selected from different colleges in Andhra Pradesh, who were

participated at inter-collegiate level competitions. The subjects were in the age group of 18 to 22 years.

SELECTION OF VARIABLES

The research scholars reviewed the variables scientific literature pertaining to the study from books, journals, periodicals, magazines and research papers, taking into consideration the importance of the variables. For this study the researcher selected the following variable.

1. Leg Explosive strength

ORIENTATION OF SUBJECTS

Prior to the test, procedures were explained in detail to the subjects to ensure proper understanding and co-operation so as to obtain reliable data from the subjects. Demonstrations were given in front of the subjects prior to the actual collection of data.

RESEARCH DESIGN

Totally forty college volleyball players – twenty offensive players and twenty defensive players who participated in inter-collegiate level tournaments were selected for this study. The selected subjects were tested to find out their ability in strength using standard tests. Comparisons were made between the scores and the differences were considered as difference in their abilities. Statistical significance were determined through 't' test. In all cases 0.05 level was fixed.

RELIABILITY OF DATA

The reliability of data was ensured by establishing the instrument reliability, tester's competency and subject reliability

Instrument Reliability

Standardized equipments, stop watch, tape were used to measure the leg strength of the subjects. The instruments were compared with standard ones and found reliable.

Tester's Competency

Reliability was established by the test-retest processes. Ten students were tested on selected variables. The repeated measurement of individuals on the same test is done to determine reliability. It is a univariate not a bivariate situation, it makes sense then to use a univariate statistics like the interaclass correlation coefficient.

The intraclass correlation coefficient obtained for test-retest data are presented in **Table I.**

Intra Class Correlation Coefficient of Test – Retest Scores

S.No	Variables	Coefficient of Correlation
2	Leg Explosive Strength	0.82*

* Significant at 0.05 level

SUBJECTS RELIABILITY

The intraclass correlation value of the above test and retest also indicated subject reliability as the same subjects were used under similar conditions by the same tester. The co-efficient of reliability were significant at 0.05 level, for the above test under investigation.

COLLECTION OF DATA

A study was conducted to compare the leg strength among offensive and defensive volleyball players. For this purpose the research scholar followed the following procedure.

TEST ADMINISTRATION

LEG EXPLOSIVE STRENGTH – VERTICAL JUMP

Purpose:-To measure the leg power.

Equipments:-A measuring tape and a smooth wall surface atleast 12 feet from the floor are required.

Description:-The performer stood with one side towards a wall heels together kept on the floor, he reached upward as high as possible and made a mark on the wall. The performer then jumped as high as possible and made another mark at the peak height of their jumped and arched.

Score:-The score was the vertical distance between the reach and jump and reached marks recorded in centimeters

STATISTICAL PROCEDURE

To find out the mean from ungrouped data, the formula explained by Clarke and Clarke was used.

$$M = X = \Sigma X / N$$

Where   N   = Total Number of scores

             ΣX = Summation of raw scores

The standard deviation was calculated directly from raw scores by the formula given by Clarke and Clarke.

$$SD = \sqrt{\Sigma X^2 / (N-1)}$$

Where   SD   = Standard deviation

             ΣX^2 = Sum of squared deviation from the mean

             N   = Total number of subjects.

To compute the standard error of the mean the following formula suggested by Clarke and Clarke was used:

$$\sigma DM \quad = \quad \sqrt{M_1^2 + M_2^2}$$

where σDM = Standard Error of the Difference between the means

M_1^2 = Square of standard error of the mean1

M_2^2 = Square of standard error of the mean2

The standard error of the mean was calculated by the formulae stated by Clarke and Clarke.

$$SE \quad = \quad SD / \sqrt{N}$$

Where SE = Standard Error of the mean

SD = Standard Deviation

$\sqrt{N}$ = Root of total number of scores

The 't' ratio of mean was found by the formula given by Clarke and Clarke.

$$'t' \quad = DM / \sigma DM$$

where DM = Difference between means

σDM = Standard Error of the difference between means.

RESULTS AND DISCUSSIONS

Table II

Showing Mean, Mean Difference, Standard Deviation and Obtained 't' value between Offensive and Defensive Volleyball players on Explosive strength

| Group	Mean	MD	SD	SDM	't'
Offensive	55.30		7.79		
Defensive	58.60	3.30	9.98	3.27	1.01

Required table value for df 1,19 = 1.73

Not Significant

The results presented in Table II proved that the average explosive strength of the offensive volleyball players was 55.30 and the defensive players was 58.60 with mean difference of 3.30. The obtained 't' value of 1.01 proved to be insignificant at the obtained value was less than the required table value of 1.73 to be significant at 0.05 level. Hence, it was proved that there was no significant difference between offensive and defensive volleyball players in explosive strength.

The obtained mean values were presented through bar diagram for better understanding of the results in **Figure I.**

Bar Diagram Showing Mean values on Explosive strength of the Offensive and Defensive Volleyball Players
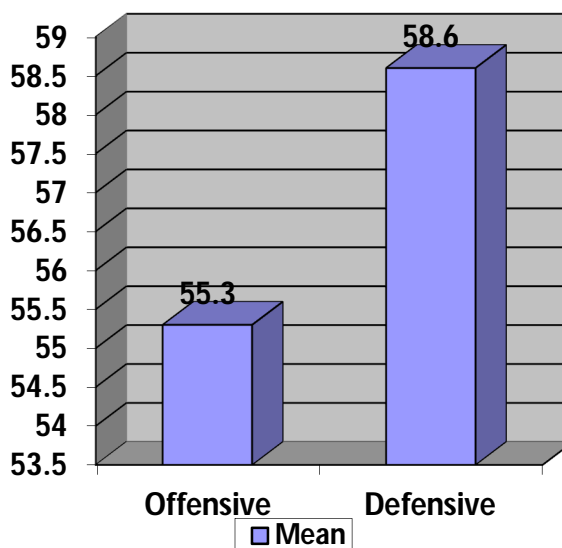
DISCUSSIONS ON FINDINGS

As of any game, the volleyball players were broadly classified into two, namely, offensive and defensive. Depending upon their positions, the requirements of strength parameters of these players are bound to differ. In this study, the researcher was interested to scientifically find out whether there exists any difference on strength of the offensive and defensive volleyball players. There was no significant difference in explosive strength between volleyball offensive and defensive players.

The study proved that in volleyball while a attacker jumped with Strength the defender also need to jump up and block the ball as such there was no significant difference between these players.

CONCLUSIONS

Within the limitations and delimitations of the study, the following conclusions were drawn:

1. Both offensive and defensive players possess adequate explosive power as assessed in this study.

2. It was concluded that there was no significant difference in explosive power between offensive and defensive player in volleyball.

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GOVERNERS OF UDAYAGIRI – RAJYA DURING THE VIJAYANAGARA PERIOD: A STUDY

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Udayagiri is a small village and head quarter of the same name in Nellore District of Andhra Pradesh. It is situated at a distance of 96 KMs from Nellore and 80 KMs from Kavali. Udayagiri is famous for its historical fort situated 938 meters above the sea level. It was known in ancient times as Kondayapalem. The Udayagiri was also an important territorial division in medieval Andhra and served as a Provincial centre of the Vijayanagara Empire. It was a sort of guardian deity of the eastern borders of the mightily Vijayanagara empire and hence became a bone of contention among the **three super** powers viz., the Rayas of Vijayanagara, the Bahmanis of Gulbarga, and the Gajapatis of Orissa.[1]

In Ancient times Udayagiri was known as Kondayapalem, and in medieval times as Uddagiri, Udayagiri and Odegary.[2] It served as a military base for the Vijayanagara rulers in their expansionist activities in the farther coast and hence described as "*Modali Durgam*" in inscriptions.[3] The most important mountain ranges of the Nellore District are the Eastern Ghats, locally known as 'Velegondas' Udayagiri hill is disconnected with the Eastern Ghats and the isolated hill is the highest in the region with 938 meters above the sea level. While Penchalakona of the Eastern Ghats is 914 meters high Pillaperu, a tributary of Maneru River flows across Udayagiri.

Udayagiri extended over the Ancient days Northern part of *Kondavidu-rajya*, Southern part of *Chandragiri-rajya*, Western part of *Penugonda-rajya*. Present day Nellore District, Southern part of

Prakasam District, Northern part of Kadapa District. This *rajya* contains within it *simas* or *divisions*, prominent among which *Gandikota-sima*, *Kandukuri-sima*, *Potladurti-sima*, and *Siddhavata-sima*[4].

Governors Udayagiri – Rajya

According to tradition, the fort of Udayagiri was built by a certain Langula Gajapati. But the known political history of Udayagiri begins only with the Vijayanagara kingdom. It is not known when exactly Udayagiri fell under Vijayanagara control. The greatest historical monument of Udayagiri with the Nature's beauty, waterfalls (Konas), medicinal plants and monumental constructions of the various dynasties reflecting the technical and sculptural values. In other words the fort of Udayagiri is the speaking fort of ancient and medieval history and culture. Coming to the medieval period in South India we see a historical event that shaped the character of the region for centuries to come-the founding of the Vijayanagara Empire. Legend has it that two brothers known as Harihara and Bukka founded Vijayanagara or the "City of Victory in 1336 A.D. in south eastern part of the Deccan. This large empire that ruled south India for more than three centuries was constantly in conflict with its neighboring kingdoms for gaining supremacy over the region.

Udayagiri fortified and made it the head quarters of the eastern province of Vijayanagara empire. Udayagiri fort held an important position strategically in South India in those days. Administration responsibility of the region was handed over to his younger brother Kampana I. An epigraph from Buggabhavi at Udayagiri dated 1343A.D.[5]. Kampana I died in or about 1355 A.D and was succeeded by his two sons, Vira Savana and Sangama II to the province of Udayagiri[6].

To the same period belong the illustrious Vedic scholars Madhavacharya and his brothers Sayana and Bhoganatha. While the former, i.e. Madhava, appears to have been an adviser to Bukka I, the latter two actually stayed at Udayagiri and held position of power and authority Sayana was a Mahapradhani[7]. Virasavana seems to have continued to rule over Udayagiri even during the initial years of Bukka I, as his inscriptions contained to appear till 1362 A.D[8]. After wards Bukka I appointed his son Virupana, famous as Udayagiri. Virupana, as the governor of the fort and the provinces and entrusted the protection of the prince and fort to Anantarasa Chikka Odaya[9].

Bukka I died in the beginning of 1377 A.D. and Harihara II immediately ascended the throne. He wanted to establish his control over the east coast and therefore appointed his son Devaraya as the governor of Udayagiri rajya in 1382 A.D[10]. Devaraya I succeeded his father Harihara II to the imperial throne the appointed his son Ramachandra as governor at Udayagiri. During this period, the Reddis of Kondavidu made inroads into Udayagiri territory but Devaraya however get them back in 1413 AD after a short interval of Years[11]. In the year 1446 AD Mallikarjuna was a weak monarch and his accession make the beginning of the decline of the Sangama dynasty.

The rivalry between the Rayas and the Gajapatis for the possession of coastal Andhra. In the struggle that ensured, Mallikarjuna lost considerable territory besides Coastal Andhra in the name of which the fight began. Kapileswara Gajapati appointed one of his sons, Kumara Hamvira, governor of the newly coquetted area and commanded him to conquer the remaining Vijayanagara territories. Hamvira led a huge army in 1463 AD into the southern provinces of the Vijayanagara Empire and captured almost all the important fort on the east coast including Udayagiri[12]. But within two years, the Gajapatis lost all these forts with the lone exception of Udayagiri. However, the loss of the two strategic forts of Udayagiri in Nellore and Kondavidu in

Guntur, together with their dependent territories weakened the Vijayanagara Empire. Mallikarjuna did not long survive this disastrous Gajapati invasion and died in 1465 AD. He was succeeded by his cousin Virupaksha II who ruled from 1465 AD to 1485 AD[13].

In the inscription dated 1468 AD Vallabhagadeva have been governing the *Udayagiri-rajya* at the time of Virupaksha II[14]. His forces after great exertions succeeded in bringing under control the Udayagiri fort as mentioned in 'Saaluvabhyudayam'. It was because of Saluva Narasimha's strength of will power *Udayagiri-rajya* was strengthened after the battle of Kandukur. After the death of Saluva Narasimha in 1491 A.D. Prataparudra Gajapati held sway over the Udayagiri. The greatest ruler and one of the most famous kings in South India was Krishnadevaraya of Tuluva dynasty who came to power in 1509 A.D.. The army of Krishnadevaraya attacked the fort. The fight lasted for 18 months and resulted in the end of Gajapatis rule from the Telugu region.

He constructed a *menata* around the fort with the object of starving the garrison. Tirumala Rahuttaraya, the governor of Udayagiri at this time, offered stubborn resistance[15]. Another inscription dated 1514 AD Rayasam Kondamarusayya holds authority to carry out the orders of Krishnadevaraya in Udayagiri Viceroy, which is the Chief *Durgam* in the kingdom[16]. This Kondamurusayya continued to rule over the Udayagiri upto 1526 AD and he was followed by Rayasam Ayyaparasa. He continued up to 1535 AD i.e. in the reign of Achyuta, when he was followed by Ramabhatala Bhutanatha. During this period a certain Venkatadri was acting as the k*aryakarta* or deputy[17].

Another inscription dated 1536 AD Achyutadevaraya is ruling *Udayagiri durgam*, which is the chief *durgam* in the kingdom of the Vijayanagara, and that Venkatadri I appointed, as his assistant to the office of the governor of Udayagiri[18]. Achyutadevaraya ruled till 1542

AD and he was followed by Venkata I, Salakaraju Chena Tirumala and Sadasiva in quick succession. Sadasiva's rule as the emperor seems to have commenced immediately after Achyutadevaraya's demise, at least in the province of Udayagiri, for several of his inscriptions dated 1542 AD are found all over the province. Aliya Ramaraja became the regent of Sadasiva and, for all practical purposes, ruled the kingdom himself till 1564 AD. Nothing is known about the conditions in the district except that Ramaraja Koneti Timma was the governor of Udayagiri province in 1552 AD[19].

After the battle of Rakshasa - Tangadi in 1565 A.D. Udayagiri appears to have lost its prominence. However, it served as temporary capital of the Fourth dynasty i.e. Aravidus, before the transfer of their capital from Penukonda to Chandragiri. When Tirumalaraya the founder member of the Fourth dynasty was ruling at Penukonda, his elder son Sriranga I was acting as viceroy at Udayagiri[20]. Sriranga I was successor by his brother Venkata II who ruled the kingdom from 1585 AD to 1614 AD. Soon after his accession Venkata II attempted to recover the lost territory and wrested the fort of Udayagiri from Muhammad Quli Qutbshah some time before 1589 AD[21].

The Ganganapalle inscription dated 1606 AD refers to the rule of Matli Anantarajas son Tiruvengalanatha Devachoda maharaja. He appears to have been entangled in some local wars. His victory over the chiefs of Gandikota at Macanola and his over throw of the governor of Udayagiri fort are described in the literary work *Kumaravati Kalyanamu*[22]. He is entrusted the administration of the fort of Udayagiri to Kowl Ananta. The loss of the fort of Udayagiri with its dependent territory roused Muhammad Quli Qutbshah to action and he sent a large army to conquer the entire kingdom. At the instance of his overlord Kowl Ananta the governor of the Udayagiri, laid waste a large tract of the Golkonda Kingdom during the course of war. Unable to

cope with the enemy attacks, the Qutbshahi general, Fazal Khan, incited the jagirdar's to Udayagiri and its dependent territory.

The above discussion makes it clear that Udayagiri was an important administrative and vice royal division in Medieval Andhra. The Vijayanagara kings were appointed number of viceroys in Udayagiri – rajya.

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PRELIMINARY STUDIES ON GROUND WATER QUALITY OF NORTH-KARNATAKA: A CASE STUDY

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INTRODUCTION

Water is essential element for living beings. Rivers are life of country. It is used for domestic agriculture, industries in Raichur. There is demand for fresh water due to increase in population and water borne diseases.

Among various sources of water , ground water is considered as safest for drinking and domestic purposes. Nevertheless, several factors, like discharge of agriculture, industrial, domestic wastes land use practices, geological formations, rainfall pattern, end filtration rates, effects the ground water in areas.

There is no significant work on water quality in Raichur city. It is inadequate. Therefore present study is undertaken. Raichur city area is 67 sq.km. consists of 35 wards. Population is 2.34 lakh. Summer temp is 40 to 45^0 c. And Winter is 29 to 37 and is third largest city in North Karnataka .Covered by granodorite, granite, and metabasalt rocks, pennisular gneisses and close pet granites cover the district. which are classified as crystalline formation from ground water point of view. The rainfall varies 400mm to 900mm with average of 600mm. Krishna and Tungabhadra rivers drains the district. Major portion is covered by red and black soil.

The low and highly variable rainfall renders the district liable to drought. The year may be divided broadly into four seasons. The hot season begins by about the middle of February and extends to the end of May the South-west monsoon is from June to end of September. October and November are the post monsoon or retreating monsoon months and the period from December to the middle of February is the cold season The highest maximum temperature ever recorded at Raichur was 45.6 C (114.1F) on 23rd May 1928 and the lowest minimum was 10.0 C (50.0F) on 14th January 1899 and 13th December 1945.

MATERIALS AND METHODS

Water samples are collected in bottles. From 25 sampling stations in Raichur city. All the samples were analyzed as per the standard procedure (APHA 1998) for Electrical conductivity, Dissolved salts, Total hardness, iron, sodium, potassium BOD ,COD, Fluoride, Calcium & magnesium

Results and Discussions

Electrical conductivity: It is the ability of water to carry current. It signifies amount of dissolved salts. Salinity may be due to presence of cat- ions, such as Na. Ca, Mg, where as Cl_2, Phosphate, Nitrate as anions. The relation between conductivity and resistivity changes significantly with temperature .It varied between 1410 to 1780 mhos/cm. Higher values may be due to the long residence time and factors of lithology of water bodies. High values of EC are recorded in north east monsoon and monsoon seasons. This may be due to agriculture runoffs, similar observations have been made by Munnavar 1885 and nagarathna(1986).

Total dissolved salts in water with high solid content is of inferior and produce physiological reactions in the transient consumer Abdul Jameel (2002). It indicates nature of salinity. Up to 1000mg/lit permissible for drinking and upto2000mg/lit for irrigation. It increases boiling point of water. It indicates inorganic salts Ca, Mg, carbonates, bicarbonates, sulphates, chlorides, nitrates and small amount of organic matter. It varied high value of 680 and low value of 325 .It is expressed in terms of equivalent quantity of $CaCO_3$.

Ca varied between 78 to 279mg/liter. it is high in monsoon. It is desirable below 100mg/liter. Water more than 500 mg per liter causes gastrointestinal irritation and corrosive property of water.

Natural hardness depends on geological nature of the drainage basin & mineral levels in natural water. The principle source of calcium & magnesium is the silicate mineral groups plagioclase, Pyroxene and amphibole among igneous & metamorphic rocks, limestone and dolomite and gypsum among sedimentary rocks. Limestone and Calcium plays imp. Role in growth and metabolism of aquatic organisms.caco3 up to 75 mg/ liter soft and 75 to 150 mg/liter moderately hard. In natural water bit is below 15 mg /lit. Mg can be up to 50 mg/liter. Beyond 300 mg / liter cause gastrointestinal irritation, more than 300 mg/liter cause heart and kidney problems. Hardness during summer may be attributed to lower water level & high rate of evaporation. It Directly dependent on carbonate and bi carbonate in water, Co_2 pressure in ionic form. Mg is always lower than Ca.

Mg concentration is attributed to different bio, Geo chemical activities In water Dakshini and Gupta (1974) also witnessed similar variations. Mg varies in this study between 32.4 to 98.8 mg/liter sodium bearing minerals like albeit and another member of plagioclase feldspar, nepheline, sodalities, glucophane etc, are not abundant as Ca and Mg bearing minerals. Weathering of these release primary soluble sodium products. The sodium is needed for human pathology. Soil permeability disturbs by high sodium ratio. No distinct variations in seasons .similar observations is by Shivashankar and Vijay bhaskar reddy (1995.) It varied between 215 to 280 mg/liter. Two factors are responsible for scarcity of potassium. 1. resistance to potassium minerals to decomposition by weathering Goldwitch (1938) and other is fixation of sodium in clay minerals formed due to

weathering. Higher values of Iron are attained by water with high pH. However a reduction in it is possible by aeration of water containing ferrous iron. The value varies 0.1-0.3.

 BOD is a measure of organic compound. It is the amount of dissolved oxygen needed by aerobic biological organisms in a water body to break down organic material present in a given sample in specific time and temperature. It is used as a gauge for waste water treatment plants. It is the amount of oxygen utilized by microorganisms to stabilize the organic matter. Up to 3 mg/lit is permissible. It is low in summer. These results partially agreed with Chatterjee (1992) who has recorded higher BOD during north east monsoon and in water oxidizes, then by a strong chemical oxidant. It determines organic pollutants found in surface water. WHO standards are 20 mg/lit. BOD indicates amount of DO needed by aerobic biological organisms. It varies between 10.5 to23.1 mg/lit

COD is the amount of oxygen required by the organic component in water oxidizes by a strong oxidant. It indicates amount of organic pollutant in water. It varied between 17.5 to 27.5 mg/liter.

Fluoride's natural source is amphiboles, apatite, fluorite and mica. An anthropogenic factor such as industrial process liberates higher concentration of fluoride into atmosphere. Fluoride causes bone & dental flourosis. Less concentration causes dental caries.

Excess fluoride results in destruction of enamel and causes flourosis leading to dental disorders, retinal disorders, decalcification, mineralization of tendons, digestive and nervous disorders. Even crippling skeleton flourosis possible. More than 1.5 mg /litre danger to health. So deflourisation is needed. It correlates positively with alkalinity, bicarbonate, pH, Na ,(Toetal et al), found variations in depth   of ground water. it varied between 0.9 to 1.2 mg/ liter.

Conclusion

Present study is undertaken to analyze amount of physico- chemical parameters . Since most of the water samples analyzed in the present investigation are contaminated it is evident by the higher values. So suitable control measures are advisable for drinking water and other purposes and suggest monitoring the same regularly.

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