

ISOLATION, IDENTIFICATION, MOLECULAR AND ANTIFUNGAL ACTIVITY OF ASPERGILLUS FLAVUS FROM WEED PLANT PERGULARIA TOMENTOSA L.**B. S. Manogna¹, P. K. Ratnakumar², G. Vinaykumar³ and P. K. Swathi⁴**^{1,2,3,4}Department of Botany, Andhra University, Visakhapatnam.

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ABSTRACT

Aspergillus flavus is a common filamentous soil fungus. *Aspergillus flavus* is saprophytic soil fungus that infects and contaminates Preharvest and postharvest seed crops with the carcinogenic secondary Metabolite called aflatoxin. These common soil fungi can infect the wide range of agricultural crops fields by causing diseases. Due to my research work, I will isolate the *Aspergillus flavus* from diseased leaves of *Pergularia tomentosa* L. Weed plant in red gram. The aim of the present study was molecular analysis of the isolated *Aspergillus flavus* from *Pegularia tomentosa* L. In this Molecular analysis, The DNA barcoding is the major tool

Keywords: *Aspergillus flavus*, Aflatoxin, *Pergularia tomentosa* L., DNA barcoding, red gram.

Introduction

Aspergillus flavus was an opportunistic pathogen on both plants and animals and it's also a saprophytic molds found on worldwide. The disease caused by *Aspergillus flavus* was the second most frequently isolated pathogen (David A. Stevens et al, 2021). This common genus has been classified based on the morphology (Samson RA. 1992) and currently contains over 200 species. *Aspergillus flavus* was described by Link in 1809 and has been known as an asexual species that only produces asexual spores conidia and asexual fruiting bodies, sclerotia. *Aspergillus flavus* are present as a saprophytic in soils worldwide and cause diseases on several important agricultural crops such as maize (ear rot), peanut (yellow mold), and cottonseeds before and after harvest (Klich MA. 2007; 1. Michailides T. J and Thomidis T., 2007; Yu J et al., 2005). It shows pre and post harvesting infection on many crop fields to cause disease in certain environmental conditions. The *Aspergillus flavus* were present in many crop fields, seeds, fruits and food items are suspected to infection under certain environmental conditions, And the contamination may occur in storage also (G. A. PAYNE,2006). The *Aspergillus flavus* also cause a serious damage to stored food products such as wheat, rye grains, nuts, spices and peanuts (Kurtzman et al.,1987; Moody & Tyyler,1990a; Samson et al.,2000; Rigo et al.,2002; Hedayati et al.,2007). The species of *Aspergillus* have long been shows the

common contaminants of human and animal feeds and first name the genus *Aspergillus* was given by Antonio Micheli in 1729 (Micheli, P. A., 1729). *Aspergillus* produce the most potent naturally occurring carcinogens called as aflatoxins (Niyo KA.,1990). The diseases caused by *Aspergillus* species were most commonly caused by *Aspergillus fumigates*, and second most frequently was caused by ***Aspergillus flavus***. *Aspergillus flavus*, classified as a separate species but genetically almost identical to *A. oryzae*, is not used for commercial applications mainly due to its capability of producing aflatoxins. *Aspergillus flavus* is thought to be predominately a saprophyte that grows on dead plant and animal tissue in the soil. Of all *Aspergillus*, it is the one most associated with preharvest contamination of certain crops. Because of its small spores and its ability to grow at 37 °C it can also be pathogenic to animals and humans. Infection by *A. flavus* has become the second leading cause of human aspergillosis (Krishnan et al., 2009). *Aspergillus* are common saprobic molds, which grow in a wide range of natural substrates and climatic conditions, Austwick reported that one conidial head may produce up to 50,000 spores (Austwick, P. K. C. 1966.). Although many *Aspergillus* species are considered pathogens or spoilage organisms, many others are beneficial. Some species are used to prepare fermented foods (Hesseltine, C. W. 1965). The *Aspergillus* species may also can cause allergenic, toxigenic, and pathogenic to human

and animals also, it represents a real hazard to many animals' health by produce numerous diseases such as avian aspergillosis and bovina mycotic abortion (Ainsworth, G. C. et al., 1973) Aflatoxins which are produced by some *Aspergillus flavus* species are considered potent carcinogens (Barnes, J. M.1964). The genus *Aspergillus* was first described by Florentine priest and mycologist P. A. Micheli in 1729 and named based on the structural similarity of its conidiophore structure to the aspergillum (Badii, F.et al.,1986).

Material Methods

Sampling: The *Aspergillus flavus* was isolated from weed plant *Pergularia tomentosa* L. from study area. The Diseased leaves from the weed plant were taken for pathogen isolation. The leaves of the pathogenic plants were washed thoroughly in running tap water to remove unwanted dust or soil particles from the leaves. The infected portions of the leaves were cut into 1.0 to 1.5 cm fragments. The diseased leaf bites were surface sterilized by 70% ethyl alcohol for 1-2 minutes for 2-3 times and then rinsed in sterile distilled water for three to four times. Then the leaf bits were rinsed in 0.01% mercuric chloride solution for 1 or 2 minutes followed by washing with sterile autoclaved double distilled water for 2 or 3 times. These leaves bites were transferred into Potato dextrose agar (PDA) plates supplemented with 1% streptomycin sulphate (antibiotic) under sterile conditions in an inoculation chamber. After inoculation plates were incubated at $25 \pm 2^{\circ}\text{C}$ for 21 days under a 12 h light/dark photoperiod. The mycelium growth was noticed with in 1 or 2 days after the isolation of the pathogens. The pathogenic genomic DNA isolation.

Genomic DNA isolation: The pathogenic genomic DNA Isolation were done by growing the fungal mycelium in Potato dextrose agar (PDA). For about 3-5 days. Then the growing mycelium was taken into inoculate in 20ml of potato dextrose broth (PDB), Then they are transfer into incubation chamber for about 5 days.

After 5 days of the incubation, the fully developed mycelium shows full development. And this fully developed mycelium was

filtered by using the muslin cloth with distilled water. This filtered mycelium was used for the extracted the genomic DNA. The classical sets of primers for amplifying the targeted gene were selected, they are IST-1 ANS IST-4. The DNA amplification and sequencing were carried out with using a program according ZR fungal DNA MINI PRE. The PCR products were sequenced by MTCC gene bank Chandigarh. To avoid errors in sequencing, DNA strands were spliced using forward and reverse prime.

Preparation of the plant extracts: The dried leaves were grinded into a fine powder and it was preserved in an ait tighter container for further use. About 50 grms of coarse powder of osmium sanctum was weighed and sued for cold maceration method by different solvents like ethyl acetate, chloroform, methanol, and distilled water. The coarse powder of plant extract was soaked in 250 ml in each solvent for 24 hrs at room temperature at shaking condition. The extract was filter by Whatman no.1 filter paper. The finally filtered extract collected separately. The extract was filtered extract of 100mg of each extract was weighed and dissolved in 1 ml of 5% DMSO and it can be used for further analysis.

Antifungal activity: The Antifungal activity from extracts of plant was performed by agar well diffusion method. For this activity, the stock cultures of the fungi were maintained by inoculating in broth media and allow to grow for 72hrs at 27°C . The potato dextrose agar was prepared and each Petri plate contain 10^3 (0.1 ml) spores/ml. The well with 6mm diameter bored by using sterilized cork brer and then filled with test samples of 100mg/ml concentration. The antifungal disc fluconazole (25mg concentration) and DMSO were also placed for positive and negative control. And all the Petri plates were incubated at incubation chamber for 5-7 days at 27°C and then the diameter of the zone of inhibition were calucated.

Results

Isolation and Morphology of fungal pathogen: The sample collected from the diseased weed plant of *Pergularia tomentosa* L. and the isolated fungal pathogen was *Aspergillus flavus*. The cultured Petri plate

shows the spores formation within 5-7 days after inoculation. The isolated pathogen was identified by MTCC gene Bank Chandigarh, and conformed pathogen was *Aspergillus flavus*. The isolated pathogen shows colonies of powdery yellow- green spores on the upper surface and reddish – gold on the lower

surface. The hyphal growth was observed as thread -like branching, septate and hyaline and produces mycelia.

The isolated pathogen was identified by MTCC gene bank Chandigarh. The identified pathogens were *Aspergillus flavus* (Fig:1).

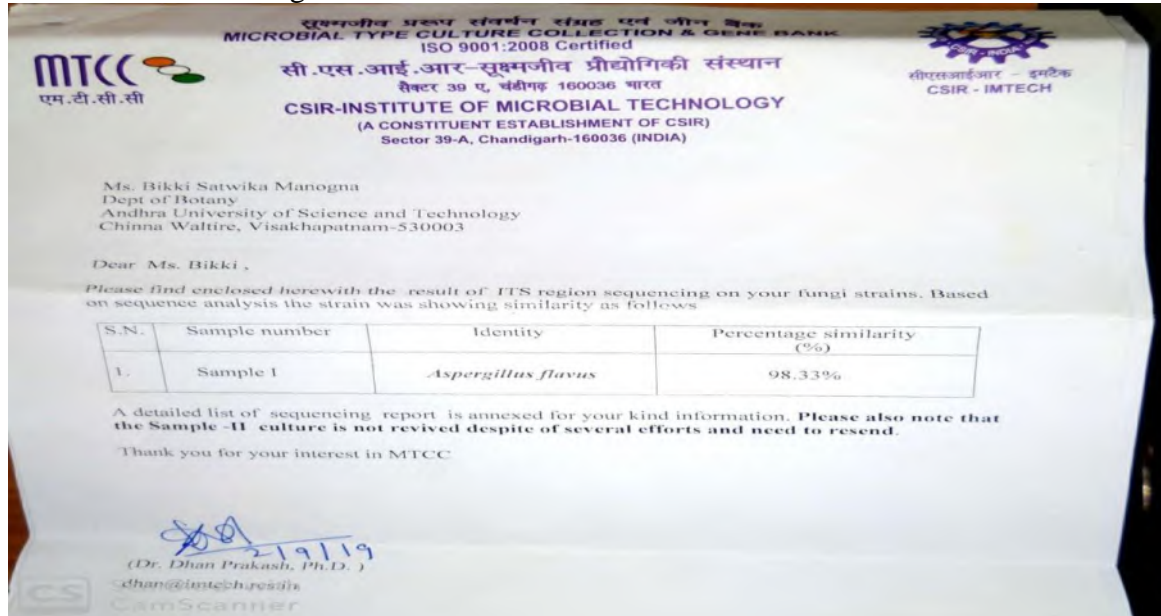


Fig :1
The isolated pathogen *Aspergillus flavus* identified by MTCC gene bank Chandigarh.

Molecular and Phylogeny analysis results

The internal transcribed region (ITS) is the most frequently sequenced genetically marker of the fungi. The sequence of the ITS region of the cultured isolate *Pergularia tomentosa* were successfully amplified by using the ITS region of 16S rRNA sequence 55’GGAAGTAAAAGTCGTAACAAGG 3 respectively the size of the ITS regions should **ITS4R +ITS5F SHOWS 98.33% sequence similarity to *Aspergillus flavus***

be between 500-600bp. For analysis of the molecular analysis other species of the *Aspergillus flavus* will be taken from NCBI gene bank. After analysis of the tested pathogen is *Aspergillus flavus* with 98% similarity.

The ITS regions of the tested pathogen show the molecular sequence of ITS region of the 16 S rRNA is given below.

Sample 1:
ITS4R+ITS5F shows 98.33% sequence similarity to : *Aspergillus flavus*
 >GATTTGCGTTCGCGCAAGCGCCGGCCGGCCTACAGAAGCGGGTGACAAAGCCCCATA
 CGCTCGAGGATCGGACGCGGTGCCGCGCTGCCCTTGGGGCCCGTCCCCCGGAGAG
 GGGACGACGACCCAACACACAAGCCGTGCTTGATGGGACGAATGACGCTCGGACAGG
 CATGCCCCSSGGAAATACCAGGGGGCGCAATGTGCGTTCAAAGACTCGATGATTCACG
 GAATTCGCAATTCACACTAGTTATCGCATTTGCTGCGTTCCTCATCGATGCCGGAACCA
 AGAGATCCATTGTTGAAAGTTTTAACTGATTGCGATAAATCAACTCAGACTTCACTAGA
 TCAGACAGAGTTCGTGGTGTCTCCGGCGGGCGGGCCCGGGGCTGARARCCCCGGG
 GGCCATGAATGGCGGGCCCGCCGAAGCAACTAAGGTACAGTAAACACGGGTGGGAGG
 TTGGGCTCGCTAGGAACCCTACTCGGTAATGATCCTTCCGCARGGTYCMCTACGGA
 AACCTTGTTACG<
 Scanned with
 CamScanner

Fig :2
ITS5F and ITS4R region sequence of the pathogen *Aspergillus flavus*

Antimicrobial result:

The antimicrobial activity was calculated by using Zone of inhibition. The Zone of inhibition is used to evaluated the antifungal activity of the plant extracts. The extracts of the medicinal plant *Osmium sanctum* L. Leaves showed effective antifungal activity to tested fungal organisms. In my study results showed that the Ethyl acetate extraction of the plant extracts shows the maximum inhibition ranges from 12.05 ± 0.3 followed from 11.00 ± 0.5 mm and 10.11 ± 0.2 in Chloroform and methanol extracts. The positive control of the Antifungal disc shows the highest zone of inhibition and negative control DMSO don't shows any zone of inhibition, they are listed in table :1

Extract	Con (mg/ml)	<i>A. flavus</i>
Methanol	100	11.00 ± 0.5 mm
Ethyl acetate	100	12.05 ± 0.3
Chloroform	100	10.11 ± 0.2
DMSO	100	-
Fluconazole	25mg /disc	15.78 ± 1.72

Discussion

Aspergillus Flavus species are present in soil and contaminate a wide variety of agriculture products in the field, storage area and processing plants and during distribution. *A. flavus*, *A. parasiticus* and *A. nomius* are the only molds they produce the aflatoxins. Along

with aspergilli, the *A. flavus* genome has recently sequenced (Cleveland, T.E. et al, 2009; Galagan JE, 2005). The genome sequence supports the view that *A. flavus* and *A. oryzae* are the same species with the latter representing a domesticated clade of *A. flavus*. In history, many documents shows that the medicinal plants and extracts like tea tree oil, clove, garlic and need shows the best antimicrobial properties (Hoffman, D.L. et al, 1987). Scientists have examined several pharmacological effects of Tulsi (*Osmium sanctum*) products which were obtained by different extractions method (Prakash and Gupta, 2005)

Conclusion

Flavus is the plant, animal and human pathogen causing yield losses and detrimental health impacts in animals and human. The fungus produces potent natural carcinogenic compounds called aflatoxins. The genome sequence supports that the *A. oryzae* and *A. flavus* are the same species with latter representing a domesticated clade of *A. flavus*. From the results of antimicrobial was concluded that *Ocimum sanctum* possesses sufficient antifungal properties towards aspergillus flavus, in these tested solvents the ethyl acetate shows the best results compared to the other solvents.

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SOCIO CULTURAL ASPECTS IN AMIT CHAUDHURI'S NOVELS "A STRANGE AND SUBLIME ADDRESS" AND "AFTERNOON RAAG" IN THE LIGHT OF DIASPORIC ASPECTS

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ABSTRACT

Describing the native culture and tradition; reflecting them in the literature is a common ethnic phenomenon of the writers. Simplicity and sensibility of nativity inspire them to uphold the deep-rooted culture of their land and exhibit them to global readers. The life of man has a versatile angle and one cannot judge the individual by looking at one angle of the style. Amit Chaudhari has no exception in this case and his writings reflect the domestic and cultural backdrop of Calcutta. This paper focuses on the artistic side of native home reflected in his novels, "A Strange and Sublime Address" and "Afternoon Raag". This paper covers the spiritual and cultural practices of Bengali people as exposed in the novel and also stresses the natural pleasures of regular life. The paper also upholds the aspects mentioned above in the light of diasporic issues.

Keywords: Domestic life, Native culture, Spiritual practices, Diasporic issues.

Introduction

Amit Chaudhuri is a versatile writer who authored novels, stories, poems, criticism and non-fictional prose. He has rightly earned his place as a distinguished writer who enjoys an additional advantage over other writers because of his interest and training in classical Indian music. He has vividly reflected society in all his novels. He has great concern for Indian value and culture but his writing is more closely focused on Bengali culture in its various manifestations. His novels as well as poems are richly marked by his engagement with Indian values, Bengali culture and local tradition. His writing is culture specific and exhibits the influence of particular locales on the characters and events of his novels. But he is not confined within the limits of Bengali people and their culture. His work has a broader canvas and extends far beyond it.

It seeks to situate him in the wider context of Indian writing which reflects an amazing continuity and vitality of Indian culture and civilization. Centuries have rolled by, millennia have come and gone, yet Indian culture goes forever. It claims, without undue exaggeration, to be one of the oldest cultures of the world. The love for peace, a sense of togetherness reflected in community-living, tolerance and above all unity in diversity characterize Indian culture. It is renowned for its love of truth, nonviolence and warm hospitality.

Despite the changes in social, religious, and political spheres at various stages of its historical and recent past, the spirit of Indian culture remains fundamentally unaffected. There has been a revival of traditional cultural modes and manners encompassing discrete areas of life and living. In the course of centuries, the Indian culture has absorbed and assimilated multiple foreign influences. Although, contemporary Indian society has both consciously and unconsciously adopted western modes, ideas, fashions, goods etc., yet people do retain an innate love of Indian culture. This article tries to unearth the cultural and traditional values in India.

Amit Chaudhuri very dexterously represents the Indian society, whether it is of Kolkata or Mumbai (Bombay) in almost all of his novels and prose works, that too with very ease. He shows very much concern especially with the lives of middle-class Bengalis, popularly known as "Bhadra Lok" whose lives and culture predominantly occupies his literary canvas. He describes the locale of Bengali society the roads the streets the building, the architecture the towns and the countries not only through his heart/mind but also through every part of his body.

A Strange and Sublime Address (1991), his first work of fiction is an impressionistic account of Bombay bred Bengali boy, a 12 years old protagonist Sandeep and his periodic visits to his maternal uncle's house in Calcutta during vacation. Compared to Bombay, it is an

entirely different world. He enjoys the living place in Calcutta and the adjoining localities with a sense of wonder. The life in Bombay is more organized, mechanical and lonely, to live in a multistoried building. In contrast the city of Calcutta is marked by a lively local culture and a sense of community life, togetherness and the ways in which the middle-class Bengali society behaves and acts. Calcutta in summer appears with its power-cuts, the daily pooja of the house hold deity and the hustle and bustle of city life along with its delicious Bengali cuisines.

Chaudhari not only celebrates the common place of Bengali society but also the simple pleasures of childhood; bathing, eating, sleeping, evening walking in the streets and so on. The novelist simultaneously and successfully transforms this world of children in to a universal vision. Thus, in this novel two themes are inextricably linked together- simple joys of childhood and the evocation of those memories in adulthood. The author himself asserted that there is no plot in the novel, it just moves ahead on the basis of Sandeep's memories which float around everyday incidents and daily routine life of Calcutta and Bombay. As the author himself metaphors a cornea, he successfully gives a vivid picture of the characters and their manners in minutest detail. Chhotamama's behavior can serve as an apt example. His waking up and disturbance to everyone in the morning with his clumsiness though not making any noise, his hands and legs move uncontrollably so, Sandeep and his cousin Abhi decided that one must simply and unquestionably tolerate the grown-ups. Another serio-comic incident is regarding the pooja-room and the rival, Sandeep curiously and fasciately observes the array of different gods with various postures. Of all the gods, Sandeep likes Ganesh the most, because he seemed so content with his appearance.

Chaudhuri uses irony as a tool to express situations in a comic way with seriousness underlying it. Sandeep's inability to learn Bengali, for him the letters look like fat man with big belly sticking out, fat man scratching his back etc.-the letters are quirky, ancient graceful and comic just as he imagined the Bengali. Abhi's tutor is another source of fun, as his English is terrible. Chhotamama's heart

attack comes in, as an opportunity to comment on society. His relatives and friends visit him in the hospital but end up discussing their children. Relatives sat talking, sipping now and then from flask, eating dry crumbling sweetmeats from paper containers, wearing shawls around their shoulders as if it were a picnic in a hill station. Among the visitors, there are people who even speculate whether chhotamama has any chance of survival.

The author paints the Bengali society in Sandeep's observance of his time with two cousins and women in the family. Sandeep is alert and sharp to everything to sounds smells, domestic habits of Bengali society moods and weather. Sandeep's experience of the bath-from the shower, that bent downward like the neck of a Giraffe is followed by post-bath rituals. Mamima applies mustard oil on his body, a common practice in all most all sections of Indian society.

The practice of religious rituals stands in contrast to the capitalist ethos in Bengali society. Fathers in the lane prayed for their sons to have a bright full future and success in career. Here the children are compared to Egyptian slaves dragging huge blocks of sturdy material. It reveals the intense desire for upward mobility and the spirit of cut-throat competition in Bengali society. It reflects their nostalgia for a pre-capitalist society in Bengal and their ambition for progress in socio-economic terms. Globalization and industrialization, transformed Calcutta much, yet it bears the traces of pre-industrialized Bengal. When car breaks down in the morning, Sandeep's aunt recalls.

"Better perhaps to go back to horse and horse carriage. On bad days like this, when the fans stopped turning because of cable fault when the taps became dry, because there was no power to pump the water and finalizes when the car engine curtly refused to start, it seemed better idea to a primitive means of subsistence to buy a horse and plough, to dig a well in one's backyard, to plant one's own trees and grow one's fruits and vegetables."

From the above extract it's quite apparent that Chaudhuri's characters prefer pre-industrial society and appreciate its aesthetic beauty in the high modernist way.

The characters in the novel inhabit the city of dust on the pavements on which children and dog sit doing nothing, while the laborers sweat digging with spades and drills, the old houses filled with dust, dust flakes off the ceilings in offices... etc. daily Calcutta disintegrates in to dust, and daily it rises from dust again.

The following is the address which Sandeep discovers it on the first page of his cousin Abhi's book.

Abhijit Das,
17 Vivekananda Road,
Calcutta (south),
India,
Asia,
Earth,
The solar system,
The Universe.

Certainly, it is a strange and sublime address. Here the title of the novel gets its significance. It reflects his desire to be a part of the global community, while retaining the features of local cultures and of Indian Bengali society.

The universe of children is however Chaudhuri's special zone, and this world comes to life in A Strange and Sublime Address with an air of perfect credibility. Once again it is the novelist's evocation through imagery, the precision of his observation of details and sharpness of his figural images, his total give up of all that is exaggerated or untrue to life, which enables him to achieve an astonishingly high degree of descriptive fidelity. Chaudhuri visualizes not only the physical or material settings in which he places his children, but also their physiological, emotional and psychological states of being.

Meaning of Diaspora

Diasporic literature is a wide term covering many issues with native backdrop in non-native circumstances. In this context, the writers of outside native places remained their writings in native roots of culture and life style. The roots are in results of migration, dislocation, rootlessness, nostalgia and a few others. All these issues are addressed in the works with an amalgamation of cultures. Whatever the reasons for their migration or dislocation, one way or the other they feel a kind of pain in the heart being far from their

native place. The memories of their place, Hamletian dilemma for leaving the place and a few other on one hand, the better life, prosperity, safety and security on another hand provoked some of the writers to analyse, evaluate and explain their views and objectives through literature. Amit Chaudhuri's novels elevate the middle-class life and fragments of real life, sights, food, customs and other social notations of the native culture. He is concerned with the notions of Indian life and the post-colonial tendencies.

Amit Chaudhuri is a versatile writer who authored novels, stories, poems, criticism and non-fictional prose. He has rightly earned his place as a distinguished writer who enjoys an additional advantage over other writers because of his interest and training in classical Indian music. He has vividly reflected society in all his novels. He has great concern for Indian value and culture but his writing is more closely focused on Bengali culture in its various manifestations. His novels as well as poems are richly marked by his engagement with Indian values, Bengali culture and local tradition. His writing is culture specific and exhibits the influence of particular locales on the characters and events of his novels. But he is not confined within the limits of Bengali people and their culture. His work has a broader canvas and extends far beyond it.

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Although, contemporary Indian society has both consciously and unconsciously adopted western modes, ideas, fashions, goods etc., yet people do retain an innate love of Indian culture. This article tries to unearth the cultural and traditional values in India.

Intricate Emotions of Cultural Exact

The second novel of Amit, "Afternoon Raag" (1993) inspires cultural emotions and the narrator's love for classical music. It covers the domestic nature of Calcutta, Bombay and the country England. The protagonist expresses his own life emotions as an Indian student and compared to three Asian friends at Oxford University. It is about the narrator-protagonist's estrangement from metropolis and deals with the experiences of young minds in terms of their loneliness, dislocation and also native emotions. Generally, Raga is a sound word frequently used in the Indian classical music system with a set of raising and falling intonations. It is compared and recreated synchronising with the life time situations in the novel. Enjoying childhood, struggling adult life, devoted to fleeting and all other important phases of life are exposed with aesthetic spirit. The technique used in the novel is the first-person narration where the novelist Chaudhuri touches Hindustani classical music entwining with classical musical poetic prose. It also used to make a meaningful suggestion to the complexity of emotions presented in the life of the protagonist. The music gives different shades of musical fragmentations so as the disconnected life of the protagonist experienced in Oxford, Bombay and Calcutta. The complex emotions of the narrator are with various thoughts of his life at native place and the imaginative elements at the present life. The amalgamation of all these images of life in an individual are reflected in the raga as it consists of different twists according to melody of its raga. It gives him an experience of what he comes across in life and what he thought to be in the life as he understood life with the view of modernists' spectacles. The impact of globalization and its adverse epiphany under the strong metaphysical potential. He sets a kind of situation against to the symbol of marriage. The relationship of husband and wife is traditionally treated as

something holy and sacred in Indian life. It is neither a contract nor an agreement between two opposite sexes. Chaudhuri exposes the subtle tenderness of Indian life and life in an alien land. All his works including "A Strange and Sublime Address" "Afternoon Raag" upholds the Bengali sensibilities in music, dance, communication and making it as a significant feature of Indian culture and family system.

"Calcutta is my birth place. it is the only city I know that is timeless, where change is neutralized by the flowing patterns..... it is a Bengal that missed the changes taking place elsewhere, the middle-class reforms of Brahmoism, the intellectual movements in Hinduism. More important, there, than the secular nationalist figures, Rammohan Roy and Tagore, initiators of modern Bengali Culture, was a native strain of Vaishnavism, the worship of Krishna, Ganesh, Parvati, an ecstatic love of their images, sung out in unwritten songs and poems."
(115-120)

Chaudhuri wants to make his characters to overcome the problem of alienation, homesickness and disconnection due to experiences in new society through Indianness. It is revealed and made relief by Sharma's intervention to English. The nostalgia that makes the people in an alien land together. Unlike others, Sharma never changes style of living, open handed resorting to English habits and traditions. Though he is homesick, he is not betrayed by anyone. The author is very much interested in Sharma's association. But he has never given a scope to interfere in his melancholy, sadness and also longing for unachieved issues.

One important thing here to be noted is that everyone has his own cultural brought up those nurtures his perceptions. It is the only unique identity of man. As there is a saying, "man is a social animal" but the author feels it is to be extended with "man cannot survive without culture". The culture is individual's a unique

entity of his long-cherished heritage with his identity, morality and mindset. When he moves from one place to another under the influence of different culture, definitely he feels dislocated and discontented.

Thus, Chaudhuri's minute description of the people of Bengal and their life style clearly reflects his outstanding style of expression. It is also noted that the man in the post-modern era is the centre for many things to be discussed at various platforms. Not only Amit Chaudhuri but also a few Post-Modern writers uphold their native and interested regions and cultures. They may be disconnected with their native land, but their alienation cannot disturb them to feel

melancholy. Most of the Post-Modern writers have their roots in the metropolitan and cosmopolitan culture. But they never forget their own culture. Amit Chaudhuri has no exception. His novels reflect a sound image of such feelings and all his novels mirrors the upper middle class and middle-class emotions. There are two ways of understanding his works. All his novels have exclusive sense when the protagonist of them permitted to such emotions and situations. But the sense of inclusiveness can be seen in the intertextuality with other works. It is not surprising that much of Amit Chaudhuri 's "Afternoon Raag" is a celebration of local cultures and subjectivities

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AN ECONOMIC STUDY ON WOMEN SELF HELP GROUP IN SENTHIAMBALAM VILLAGE, THOOTHUKUDI TALUKA

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ABSTRACT

Self Help Groups have emerged as the most successful strategy in the process of participatory development and empowerment of women. The SHG groups rotate the money to the needy members for various purposes at a specified low interest rate. The SHGs are linked with a bank for the external credit and the project of the rural development. SHG focuses and promotes on entrepreneurial abilities of the beneficiaries and their village as a whole. The groups undertake the responsibilities of developing non-credit service such as literacy, health and environmental issues etc. The SHG helped the people to improve their economic conditions. Income generation through SHGs is satisfactory, since most of the SHG members gained additional income and employment through SHGs. The economic study of Women Self Help Groups in this village is quit satisfactory. SHGs have uplifted the women from social bondage and have promoted the importance of thrift, sanitation and co-ordination among members. Definitely, the standard of living of the people has raised. The study reveals that most of the SHG beneficiary families are shifted income from lower Level to better Level and better Level to satisfactory.

Keywords: *Women empowerment, development, income groups, credit, saving, standard of living.*

Introduction

Self Help Groups (SHGs) is not a new concept in development. The traditional Indian society functioned mainly on the basis of self – help and natural aid. However, in recent years, they have been emerging as a major strategy for the promotion of informal credit to the poor. The concept of SHGs serves to underline the principle “for the people, by the people and of the people”. The origin of SHGs is from the brainchild of Grameen Bank of Bangladesh, which was found out by Prof. Mohammed Yunns of Cittangong University in the year 1975. This was exclusively established for the poor.

Self Help Groups have emerged as the most successful strategy in the process of participatory development and empowerment of women. Women SHGs in our country have achieved success in bringing the women in the main stream of decision making. SHG is also a viable organized set up to disburse micro credit to the rural women and encouraging them to enter into entrepreneurial activities.

The SHG groups rotate the money to the needy members for various purposes at a specified low interest rate. As the repayment is almost full and complete the saving amount increases faster owing to the accumulation of the income

from saving habits which help the members to a scope from the clutches of money lenders. The SHGs are linked with a bank for the external credit and the project of the rural development. SHG focuses and promotes on entrepreneurial abilities of the beneficiaries and their village as a whole. The groups undertake the responsibilities of developing non – credit service such as literacy, health and environmental issues etc.

Problem Focus

The most important social factor is to help the poor. In recent years, it has been the success of the thrift and credit – based SHG. The question is whether all the poor are benefited? What are the practical problems of unemployment in rural women? Has the economic conditions of the members improved? However attempts are made to study the problems so as to identify the strategy that may be applied to strengthen the SHGs.

Objectives of the Study

1. To know about the function of SHG in Senthiambalam Village.
2. To study about the self – progress of the people in the Village.
3. To examine the way in which the loan amount are utilised.

4. To find out the economic growth of people in the group.
5. To offer suggestions to improve the standard of living of the people.

Methodology

This study area is located in senthiambalam village in Thoothukudi taluk, Thoothukudi District, the researcher has selected the SHGs in the study area. In this village there are 12 SHGs comprises of 20 members each. The investigators propose to collect the data required, by adopting simple random sampling techniques. The researcher intends to take five sample respondents from each group in every group in this village. Totally get at a total of 60 samples from all the 12 groups for statistical investigation.

Scope of the Study

This is an empirical study in the selected village of Senthiambalam in Thoothukudi Taluk, Thoothukudi District. This study is mainly based on primary data. The study is analyzing the income, expenditure, loans and repayment etc, of the individuals. From the study of economic condition the government body will find it easy to support the area with necessary funds and schemes.

Review

The nobel scholar and Indian economist Mr. Amartya Sen expressed in his words, "Unless women are empowered, issues like literacy, health, population explosion will remain under solved problems of the developing countries". In India, majority of the women still continue to perform their traditional roles in the household and in agriculture. The women are the wife of men – the present scenario focuses them to depend on men. Representation of women has never gone beyond 8% in parliament, 10% in the State Assemblies, 13% in Council of Ministers, and 5.8% in senior management and administrative posts of government and hence there is no equal opportunity. Women are more efficient than men, sometimes. They contribute a lot to the economic development. In particular, self – help groups are the central activity, which would result in social and economic development. SHG also facilitated to achieve independence in their life. Further, SHGs

helped to improve their mental ability through proper education. The SHGs of Grameen banks of Bangladesh and Self Employed Women Association (SEWA) are the examples of successful SHGs in Banagaladesh and India respectively.

M.VeeraShanmugha Mani, Collector of Nagapattinam said the SHGs had already shifted their line of activity from the traditional practice of rearing cows and goats, to prepare the flour products and tailoring to manufacture of telephone mats, jute bags, bamboo and plastic wire products, bricks, running of breakfast centres and PGS (Public Distribution Systems) shops. He insisted the training programmes on preparation of fancy products, mud and paper mesh dolls, different types of glass products, manufacturing of fish pickles etc. These activities were conducted for them to diversify their line of economic activity. He also said that a total of 6,072 women SHGs, whose membership worked out to 14 per cent of total women population of 7.48 lakhs in the district, were functioning and their savings was around Rs.12.95 crores.

Banumathy in her article remarked that, SHGs play a major role in transforming rural economy. Micro-finance helps the rural poor to improve their life standard and fulfill their credit needs. SHGs are new innovation in the field of rural economic development, to finance the rural people and also to satisfy their credit needs. This turn will help to transform the rural economy by way of improving the economic status of each and every individual member of the SHG in the rural areas apart from providing scope for women empowerment. Thus, SHGs play a major role in Women empowerment, micro-finance through bank linkages in collaboration with NGOs and contribute to the rural economy.

Concept

SHGs are homogenous gathering of persons usually not more than 20 – 25 individuals who join on a voluntary basis in order to undertake the economic activity such as thrift and credit or use of common asset on a basis of equality nurturing trust. The poor might organize themselves into small groups of up to 20 persons, known as SHGs, to inculcate the habit of credit operations among themselves.

It is noted that the maximum size of the group should not exceed 20. The age group for the membership is 18 – 60. It is worthy to note that the members should all be married women. Preferences are given for the poorest women amongst the target group, with focus on widows, divorcees, deserted and handicapped women.

SHGs are engaged in and facilitate, the maximum use of human resources, efficient utilization of local natural resources, promotion of rural economy, helping weaker sections, enhancing saving habits, increasing (self) employment opportunities, instilling self confidence and self reliance, empowerment of women and causing overall economic development of the country, including rural economy. The main objectives of SHGs are thus to develop leadership quality, self confidence and reliance, increase social awareness, improve status of women in family and society, improve health and family welfare, functional literacy, increase income assets, inculcate the habit of savings and to develop economy.

Age wise Classification

The persons under the group are classified into age. The following table depicted the different age group of the respondents.

Table: 1
Age wise Classification

Age	No. of Respondents	Percentage
25 – 35	14	23.33
35 – 45	22	36.67
45 – 55	18	30.00
Above 55	6	10.00
Total	60	100.00

Source: Field survey

Table 1 explains that 22 respondents belong to the age between 35 and 45, which comprises 36.67 per cent of the study area. Women of the age group of 25 – 35 accounts only 14 and the percentage being 23.33 and age group of 45 – 55 accounts 18 and the percentage being 30. The remaining six members belong to the age of above 55. It reveals that all the different age group of the respondents are participated in the SHGs.

Family size wise Classification

The consequences of the large size of the family adversely affect the standard of living. It is also related to per capita income, employment and social infrastructure. So, the analysis is to know the size of the family. The following table explains the family size of the respondents in Senthiambalam Village.

Table: 2
Family Size

Age	Male		Female		Total	
	Numbers	%	Numbers	%	Numbers	%
Children (below 14 Years)	41	18.98	36	16.67	77	35.65
Adults (above 14 Years)	68	31.48	71	32.87	139	64.35
Total	109	54.40	107	45.60	216	100.00

Source: Field survey

We can understand from the Table 2 that the number of adults in the whole sample of 139 is 64.35 per cent that is, nearly 2/3 of the total family size. Children contribute 35.65 of the sample. We can infer that the adults can understand more about the functioning of the SHG through their mother or sister, so that an indirect way of training the adults in motivating them to strengthen the growth of SHG, is expected.

Housing Condition

The housing conditions of the sample households are explained through the following table.

Table: 3
Housing Conditions

Housing Condition	No. of Respondents	Percentage
Own House	48	80.00
Rented House	12	20.00
Total	60	100.00

Source: Field survey

Table 3 reveals that majority of the members have their own residence that is, 48 out of 60. This is a remarkable sign that shelter is assured and one of the basic needs is fulfilled. We can also infer that most of them can spend their time or divert their time for the organization and for the upliftment of their conditions.

Education

The level of literacy is one of the important factors that determine the economic conditions of members. Human capital formation is associated with education. The following table explains the educational level of the respondents.

Table: 4
Educational Level of Respondents

Educational level	No. of Respondents	Percentage
Primary level	18	30.00
Middle School level	22	36.66
Secondary level	13	21.67
Higher studies	7	11.67
Total	60	100.00

Source: Field survey

Table 4 explains that the educational level of the study area, is not worthy but all of them are literates. It is seen that 7 respondents have their collegiate education, which is also quite appreciable. It is understood that proper understanding of the group members, taking part in the functioning of the group for their development and for the promotion of group activities, literacy plays the major role in co-ordinating various function of the group and for the member’s upliftment.

Occupation of the Respondents

Occupation of the self help group members are depicted in the following table.

Table: 5
Occupation of the Respondents

Occupation	No. of Respondents	Percentage
Nursery work	14	23.34
Crafts work	25	41.66
Agri. Coolies	11	18.34
House Wife	10	16.66
Total	60	100.00

Source: Field survey

Table 5 indicates that out of 60 respondents, 14 women are working in the nursery work. It means that majority of these families have attained subsistence level of living since additional amount of loan, which can be availed through SHG, could be better utilized for farm activities. Out of this, the coolies forming 18.34 per cent are much benefited through SHG. Majority of the members (41.66%) engaged in crafts work, which are basket maker. They are also benefited through the loan provided through the SHG.

Loan from Self Help Group

Without any loan provided by the bank, SHG can not be functioning properly. So that, loan is an important factor to determine the SHG. The following table explains the loan to SHG. Further it is considered to be an important table since one of the major purposes of farming SHG is to provide loans to the needy members for various purposes.

Table: 6
Disbursement of Loans

Loan Amount (in Rs.)	No. of Respondents	Percentage
Less than 5,0000	20	33.33
5,0000 – 70,000	8	13.33
70,000 – 90,000	13	21.67
90,000 - 1,00,000		31.67
Total	60	100.00

Source: Field survey

The table 6 shows that 20 members availed loans (for less than Rs. 50,000) which constitutes 33.33 per cent. This means that they get loan for a comparatively lower amount so that they can repay the loan easily. 19 members (31.67 %) in the sample area received loans for the loan amount between Rs 90,000 –1,00,000. It reveals that all the respondents are willing to get the loan for their up – liftment of standard of living.

Purpose of Loan

Purpose of loan should be known without purpose nobody can not borrow the loan. The following table explains the purpose for which the loan amounts are spent.

Table: 7
Purpose of Loan

Purpose	No. of Respondents	Percentage
Business	13	21.66
Agriculture	7	11.67
Education	9	15.00
Health Care	3	5.00
To built Toilet	3	5.00
House loan	10	16.67
Marriage function	6	10.00
Miscellaneous	9	15.00
Total	60	100.00

Source: Field survey

Table 7 indicates that only 13 member has availed the loan for starting a petty shop and the percentage is 21.66 and 10 members (16.67%) have availed the loan for converting

their tile-roof houses to concrete. Another remarkable achievement with regard for sanitation and health awareness, many of the members namely three (5%) have used the loan amount for converting the ordinary type of lavatory to the flush-out toilets. It is seen that 9 members have spent the loan amount for the education of their children. Another 6 members use their loan amount for expenditure on marriage function, which are unproductive. It is also noted that seven members forming 11.67 per cent who are having small farms have spent the loan amount in farm activities. The loan amount is used for productive purposes.

Income

Income is one of the important factors among the economic factors. It is determined the standard of living of the people in this village. The following table8 explains the income group of the SHGs in Senthambalam Village.

Table: 8
Income

SI. No	Income (in Rs.)	Before Joining SHG		After Joining SHG	
		No. of Respondents	%	No. of Respondents	%
1.	10,000 – 20,000	25	41.66	15	25.00
2.	20,000 – 30,000	14	23.34	17	28.34
3.	30,000 – 40,000	9	15.00	12	20.00
4.	40,000 – 50,000	12	20.00	16	26.66
	Total	60	100.00	60	100.00

Source: Field survey

Table 8 shows that through the income group between Rs 10,000 – 20,000 shows a decline in income of after joining SHG. The other income group between Rs 20,000 – 30,000 and 30,000 – 40,000 and also Rs 40,000 – 50,000 are increasing after the joining SHG of the respondents. It reveals that the income group of the SHG’S income is steadily increasing after join in SHGs than the before joining SHGs.

The reason is that their standard of living is increasing.

Savings

Saving is one of the important factors among the economic factors. It shows that due to the saving the standard of living of the people are increasing. The following table explains the saving of the SHG people in Senthambalam village.

Table: 9
Savings

SI. No	Savings (in Rs.)	Before Joining SHG		After Joining SHG	
		No. of Respondents	%	No. of Respondents	%
1.	Rs 500 – 1,000	10	16.66	28	46.67
2.	Rs 1,000 – 1,500	3	5.00	26	43.33
3.	Rs 1,500 – 2,000	2	3.34	6	10.00
4.	No Saving	45	75.00	--	--
	Total	60	100.00	60	100.00

Source: Field survey

Table 9, is considered to be one of the most important tables that is, how the saving pattern of the group members is improved. In the table, the last category, before joining the group, 45 members have no saving at all but after joining the group all the members started savings of their money monthly. There is a significant increase in the saving group category which is 16.66% and 5% of Rs 500 – 1,000 and Rs 1,000 – 1,500 before joining the group. Which shoots up to 46.67% and 43.33% after joining the group. It reveals that there is a satisfactory level of increasing the saving of the SHGs group of the people in this study area.

Findings and Suggestions

Findings

1. The women in the age group of 35 – 45 which accounts for 36.67 per cent women more than 35 in age are interested in joining in the group.
2. With regard to ownership of immovable assets, 80% of the respondents houses. Only 20% of the respondents live in rented houses. This shows that the living conditions of the members are at least just above the poverty line.
3. One of the major findings is that all members are literates through 36.66% passed the middle school level of education. This is an indicator which shows proper understanding and co-ordination between the members are seen.
4. In occupation wise 23.34% of the respondents are working in nursery. They have at least attained subsistence level and additional amount of money as loan in better utilized for farm activities. Women entrepreneur ability is low in this study area

and women empowerment is wanting. Majority of the members (41.66%) are working in crafts work.

5. It is also found that majority of the members that is 33.33 per cent availed loan for less than Rs.50,000. It is because the members are more cautious about the repayment of loans. Only 19 members are provided with bank credit.

6. Another major objective of the programme is awareness towards sanitation. 5 per cent of the members availed the loan facility for converting the ordinary type of lavatory to the flush out toilets. 15 per cent of the members have received loan for educating their children. 11.67 per cent of the of the farm owners all are got loan for agricultural operations.

7. The SHG has motivated social awareness among its members. The importance of sanitation is well felt among the members. Modern toilets have replaced the traditional type.

8. Loans are used for only productive or asset earning purpose. Many of the members only availed loan through the revolving fund which is less than Rs. 50,000.

9. It is noted that there is proper understanding and relation between the members in all the groups. The 12 group members jointly do almost all the activities.

10. It is found that, before joining the SHG group 45 members have no saving at all but after joining the SHG group all the members started savings. There is a significant increase in the saving group category.

11. Money lending with reasonable rate of interest among the group members on short – term basis is the only active function of the SHG. Other activities such as handicraft goods production, poultry, honey keeping, mat weaving, matchbox making, basket making

etc., are not tried in this group. So the member is deprived of getting other loan facilities and subsidies through government agencies.

12. The role of Non Government Organization (NGOs) is almost nil in the study area.

Suggestions

1. Government through the panchayat could provide training of the group member in producing consumable goods. The products of the group could be marketed in the town area by providing rent-free government buildings.
2. SHG for men is started in some districts. In all villages SHG for men could be started which provides gender balance.
3. Women could be given vocational training under women entrepreneurship development programme.

4. The nationalised banks should give more loan for the SHGs women members.

Conclusion

The economic study of Women Self Help Groups in Senthambalam village in Thoothukudi Taluk is quite satisfactory. SHGs have uplifted the women from social bondage and have promoted the importance of thrift, sanitation and co-ordination among members. Definitely, the standard of living of the people has raised, thanks to the members involved in social activities in general. The study reveals that most of the SHG beneficiary families are shifted income from lower level to better level and better level to satisfactory.

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CULTURAL INFLUENCE IN ENGLISH LANGUAGE TEACHING AND LEARNING**E. R. Kumar¹, P. Revathi², K. V. Rama Rao³, A. R. Bonthu⁴ and N. Sankara Babu⁵**¹Avanthi Institute of Engineering and Technology, Tagarapuvalasa, AP,²Raghu Engineering college,^{3,4}Sri Vasavi Engineering College, Tadepalligudem, Andhra Pradesh,⁵Government Degree College, Palakonda,

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ABSTRACT

English plays an essential and significant role in our daily work and life. English teaching is a big and popular project in China, with the further development of China's reform and opening-up. There is a natural relationship between culture and language. Whenever we teach English, we transmit western cultures to our students unavoidably. When taking in the essence of western culture, students may learn English quickly and well. This thesis focuses on the relationship between Culture and language and difficulties and challenge on how to teach English effectively considering the cultural impact.

Keywords: Culture introduction, Cultural Teaching, English teach

Introduction

With the development of modernization, as we all know the world itself is becoming a "global village". Opportunities for Indian to contact with westerners are growing more and more. Due to the differences in history, geography, development level, culture, Misunderstandings often occur in English teaching and learning process. For people with different cultures, the same words or expressions may not mean the same. A serious question may cause amusement or laughter due to cultural differences; speakers may get blank faces or stony silence. After several years of English study, even English majored college students still find it's difficult to deal with English speakers, especially for some slang or buzz words. Teaching should focus on culture study and learn the skills of communication.

This paper includes five parts. The first part is about the differences between language and culture. The second part is about the differences between Indian and English teaching. The next part is a brief introduction on difficulties in teaching English aroused by culture differences. The third part is about the importance of Cultural Background Knowledge in Language Teaching. The last part concerns some advice on English with culture. It is about suggesting teaching methods in cultural learning and teaching.

Language-culture relationship

What is culture? Different people may have their own answer. It can be approached from different perspectives and therefore defined in very different approaches. Most of us agree that culture refers to a country or group's customs and beliefs, art, way of life and social organization. It's fictitious, actually, but leads one's thought, way, work and life. Culture broadly means a nation's or person's way of life, including customs, customs, objects, institutions, techniques and languages that characterize the lives of the human community. Culture, in a narrow sense, can refer to local practices, beliefs or customs, mainly found in folk culture, corporate culture, food culture and so on. Culture is an inclusive complicated system, and can be broadly divided into material culture and spiritual culture. Material culture refers to all the concrete and substantial cultural aspects of human society. Spiritual culture, on the contrary, refers to abstract and implicit cultural aspects of human society, including ideology, patterns of thought, values, beliefs, conventions, traditions, social norms and customs, assumptions, interpersonal relationships, etc.

Through mentioned above, we can have a brief understanding of culture. So what is the connection between language and culture? Who can reply to that question? All we can say at least is that language and culture have a

close and intimate connection. Nobody would dispute the relationship between language and culture. Language unconsciously expresses cultural connotations, reflects people's thoughts, beliefs, views of life, world views, etc. Culture releases and constrains people simultaneously in terms of metaphor, society and history. Culture also has an influence on people's vainly hopes which we can observe from their daily life and sociality.

Language plays an important role in all the social activities and also in the subjective world. We cannot fully analyse the cause of formation and influence mechanism due to people's linguistic phenomena is so mysterious and senseless. There is lots of study on this part since olden days. Scientist still cannot eventually unveil the mystery to the general public.

Language is closely connected to culture and not only part of culture. Language is for many people not only a cultural medium, it is also an important part of culture. People constantly give words symbolic meaning. Even years after they already have established themselves, it is quite common for immigrants to a new country to retain their old customs and speak their first language in their folk group. Because immigrants are keen to preserve their own heritage, not only customs and traditions but also language, they try to maintain their particular identity. Language is not just the simple cultural carrier which, in turn, constitutes the important content and language. We can dig out cultural features from language expressing and explain language phenomena with culture changes.

There are many ways in which we can find that language and culture influence each other and are intimately related. Both phenomena are quite unique to humans and have arisen lots of attention and interest in anthropology related subjects and study. Language is determined by culture or cultural mix and devolving to a great extent. The reverse is also true that culture is strongly influenced or determined by language. Comparing with culture, language is more open and superficial, and is apt to change with other kind of language. The good example is Dialects, idioms, internet buzzwords and Chinglish which are all representing the big or small change in culture.

Culture is strongly linked to language. Each nation's specific culture can be reflected in a variety of ways, but there is nothing else that shows as much content as its language of its culture. From a language and social culture perspective, language can be seen as a special and clear phenomenon of its social culture. Language development is also closely linked to the cultural and social improvement of a nation's economy and spirits. The social changes and progress of thinking, for example, constantly enrich the language's expression. Consequently, second language learning is also the understanding of a second culture. This is, in a sense, a process of conflict, destruction, reconciliation and rebuilding. An English teacher is an important connection between the language culture of the target and learners.

Culture Differences between India and America

Culture in India

Traditional **Indian** culture has gradually changed into a Hindu spirit throughout its long historical evolution. It can still be clearly expressed in the ways of thinking and behaviour, in the national temperament and in other aspects of culture. The traditional values of Indian culture can generally be summed up as follows: collectivism, harmony, hierarchy, humility and courtesy.

Collectivism and Harmony

A key belief in community cultures is that the smallest unit of survival is the group or collective.

Indian culture is classified as a collectivist. The fundamental unit is the family, not the individual. It is sometimes referred to as a collective or group culture. People live in basic unit family from childhood to colleague phase. And then spend 4- years in colleague to pursue the bachelor degree and start working after graduate. This is not an abstraction but is a daily manifestation of children and adults who show their obedience and concern for their parents and their welfare. Family support is highly valued by society as a whole.

The support of the family requires cooperation with others. Harmony is therefore highly appreciated and conflicts are avoided. Competition is not properly promoted. One

important way to achieve harmony is to accept and respect the need to preserve the face of each individual.

Hierarchy and Humility

Hierarchy is another important feature of Indian society. In order to achieve social harmony, people have to accept their social position both in family and society. "The Emperor should be an Emperor, the subject a subject, the father a father and the son a son," Confucius wrote. This means that individuals were not equal in the household as in the country. He recognized inequality because, in his opinion, the obligations between the higher and lower classes worked in both directions in society. Everyone had a duty to the other. Throughout Indian history, people with a hierarchical perspective have shown respect for seniority, age and family.

Courtesy/Good Manners

As harmony in hierarchical societies is wanted, courtesy in Indian culture has always played a key role in interacting with people. Humility is manifested in everyday life and often without our consciousness. It frequently takes the form of self-departing.

Typical Culture in America

US culture was seen as "cultural pluralism." The cultures of various Native American tribes, Spanish colonizers' in the southeast and Florida, African slaves, French traders and British colonialists show a diversity throughout American history. Immigration has enhanced this diversity over two hundred years. American culture is often referred to as an individualistic culture, in which people subordinate collective goals to their personal goals. Six core values or beliefs have evolved into traditional American values: individual freedom, self-confidingness, equal opportunity, competition, the desire for material wealth and hard work.

Individual Freedom and Self-Reliance

The early settlers created an atmosphere of freedom with an emphasis on the individual because of a restriction on government, church, and the absence of Aristocracy. The new independent United States (after 1776) introduced the concept of freedom for

individuals, perhaps the most fundamental of American values. A key belief of individualistic cultures is that the individual is the smallest unit of survival. American culture is sometimes referred to as "I" culture because the emphasis is on the individual rather than the group.

Freedom for Americans means that every individual has the right to control his own destiny without external interference from the government, the ruling class, the church or another organised power. However, a price is paid for individual freedom: autonomy. This typically implies financial and emotional independence from parents as soon as feasible. The need to "stand on one's own feet" is a priority.

Equality of Opportunity and Competition

President Lincoln said that "equal opportunities" are important. The Americans understand this as the right to equal opportunities in life for success, but not as equality between everyone and everyone. You view life as a success storey. Equality means everyone has the same chance of winning and entering the race.

If life is regarded as a race, a person must run it to succeed. An individual must compete with others. This is the price paid for equal opportunities. It is anticipated that everyone will try to succeed. Americans match their intelligence in a competitive success contest against that of their neighbours. The successful are seen as winners. Competition and the will to win are seen as healthy and desirable.

Material Wealth and Hard Work

Probably the most generally recognized indicator of social standing in America is material riches. A rejection of the structure of Europe's classes and a more classless society saw the emergence of social status as a substitute for judgment. This was replaced by the quantity and quality of the individual material wealth. But Americans pay a price: hard labor. The land and other rich natural resources, as was the industrialization of America, were exploited by hard work. The wealth generated was and remains material property and a high standard of living. Hard

effort has been really rewarding. Material property is physical proof of this.

Difficulties in teaching English aroused by culture differences

Some Communication Problems Caused by Culture Differences

Due to cultural differences mentioned above, there may be misunderstandings, although the language used in communication can be faulty. The same words or expressions may not mean different peoples the same thing.

Here's an example that's like a joke:

Once an American visited a Indian house, he said, "Your wife is very gorgeous," the visitor saw his host's wife.

The host was smiling and saying, "Where? Where?" - which caused the American's surprise, but still he answered: "Eyes, hair, nose, everywhere, everywhere..." - an answer that the host found a bit puzzle. Different cultures created the surprise. "Where? Where?" is a sort of humble saying that means "Nali! Nali!" in Indian. But the American saw it as "What part of the body is beautiful?" The reason for the misunderstandings of both sides was therefore differences of customs and customs. Each expressed and understood what the other said in his or her culture.

As a matter of fact, events like these are fairly common when people of different languages and cultures Communicate because cultures differ from one another and each culture is unique. Learning English well means more than mastering pronunciation, grammar, words and idioms; it means learning also to view the world as native speakers see it; to learn how the language of their language reflects their society's ideas, customs and behaviours; to learn how to understand their "mind language."

Problems in English Teaching and Material Caused by Culture Differences

Indeed, learning a language is inseparable from understanding its culture.

But culture has not been given sufficient attention in our teaching for a long time. Although many students have acquired enough knowledge, they often make mistakes in application of language to real life, because our teaching and teaching materials attach importance to language forms but ignore the social meanings and language application in

reality. The following dialogues may be seen in various textbooks:

1. A: Which is your name?

B: LiLy is my name.

A: How old are you, how old are you?

B: I'm 20.

2. A: Where do you go?

B: I go to library. B: I go to library.

3. A: Are you sending your folks a letter?

B: Yes, I am.

A: How often are you going to write to your parents?

B: Approximately once a week.

All the above dialogues are roughly the combination of English and Indian thinking. While these forms are correct, they are not suitable. It's unimaginable for someone other than hospitals, immigration offices and such places to ask a string of questions such as: "What's your name?" "How old have you been?" The natural reaction of English-speaking people to the greetings like: "Where are you going?" would mostly likely be "Why do you ask?" or "It's none of your business." Questions like "Write to your parents?" are meant to influence the privacy of yourself. Our teaching materials, teachers sometimes don't pay enough attention to differences between cultures, so students are usually ignorant of the factor of culture and they can only mechanically copy what they have learned.

Importance of Cultural Background Knowledge in Language Teaching

Thus, in English teaching, we should not only pass on the knowledge and skill of language learners, but also enhance the knowledge of the relative cultural background of education and the way we speak English.

Necessity of Cultural Background Knowledge in Aural Comprehension

Many students complain in teaching the aural understanding that a lot of time has been spent listening, but little has been gained. What's the explanation behind this? On the one hand, perhaps the English of some students is very poor and the material rather difficult. On the other hand, it's important that they are unfamiliar with the culture of the USA and England.

Aural understanding, which is closely related to American and British culture, historical histories, way of thought, politics and economics, is a study of our comprehensive skills including our English level, knowledge, analysis competence and imaginative power.

We may have this experience: if we listen to something we know about, no matter what, we usually understand or devise the unfamiliar part according to its context. However, we may feel difficult or frightened when we find unfamiliar material or something closely related to cultural backgrounds. Even if the material is simple, we know the literal meaning only, but we cannot understand the connotation because we have a lack of cultural knowledge.

A phrase from a report is as follows: "The route to November is uphill all the way." "November" means literally "11th month of year." But here we refer to "the November presidential election." Another example is 'red-letter days,' a simple phrase that's easy to hear and means holidays like Christmas and other important special days. However, students often cannot understand it without an explanation from the teacher.

It's not too much to say that: in English listening, the introduction of cultural background is necessary.

Necessity of Cultural Background Knowledge in Oral Comprehension

Speaking is also not just about pronunciation, grammar and intonation. Students can only improve their oral English and reach the goal of communication through huge reading, rich language skills and knowledge of western cultural heritage. Thus in oral training, teachers should emphasise factual language and use certain material related to every day life, such as daily conversations with tape, magazines, songs, videos, films, TV, radio and newspapers, etc., because the material is real-life and it helps students become familiar with standard pronunciation and intonation, and speak the appropriate English.

Necessity of Cultural Background Knowledge in Reading Reading English articles requires a certain level of language, but reading and understanding are not entirely related to the level of your language. Cultural background knowledge is also extremely

essential. Reading is a process affected by the integration of one's knowledge of the language, cultural background, capacity and other professional knowledge and the continuous devaluation process, corrections and auto processing based on the available language material, cultural background and logical reasoning. In general, Indian study Indian without cultural background difficulties. However, differences between the Indian and Western cultures usually have many difficulties when we read English articles.

In English works often appear many allusions, slangs and idioms drawn from history, religion, literature, etc. which became common terms in the modern age. It is an essential element of a particular language and culture. However, without knowledge of western culture and history, such statements are not always easy for learners to understand and use.

It is thus clear that reading difficulties cannot be solved entirely through our language knowledge, because the works of a people cannot be separated from the cultural traditions of the people. Thus, a teacher should explain grammatical problems and an explanation of cultural background in teaching. And students should learn not to look at such idioms simply because they are composed of simple and easy words but because they should look for the same phrases with different meanings, and look them up in a dictionary if they are not sure. They have to try and keep it long enough, because it's an accumulation process.

Necessity of Cultural Background Knowledge in Writing and Translating

Likewise, writing and translation cannot be separated from knowledge of cultural backgrounds. Even the very simple terms cannot be dealt with easily in translation without taking particular contexts and customs into account.

Written understanding of the cultural context is also essential. Why can you say fairly easily if an article was written by a Indian or an English native speaker? On the one hand, this is probably due to the lack of knowledge of most Indian students in the language or mode of thinking; on the other, probably due to differences in the styles of Indian and English writing that reflect cultural

differences. In Indian, narration and description seem a bit more ornate or "floruous" than in English.

Indian and English speakers seem to look at the use of phrases and expressions differently. Take as an example the following situation: English-speaking writers tend to be less militant in language and tone than most Indian in convincing writing such as social or political essays and editorials. The aim is to let the facts to speak on their own. So in such kinds of writing, we will try not to use the phrases we must, we should not, it is wrong, it's absurd, can't be denied, we must demand it resolutely. The tone is typically limited; the language is usually mild. In today's Indian social and political writings, the facts are, of course, of prime importance, but militancy is also highly emphasised to clarify its position. This is a significant difference in mindsets.

How to Improve English Teaching of Different Culture

From the above analysis, we can easily conclude that the knowledge of language forms is not enough for English students. The significance of English teaching and learning is rich in culture. It is not just the mastering, but the touching, recognizing and understanding of the western people's cultural thinking patterns. However, how can we teach English effectively and efficiently in different culture, especially in Indian culture?

Introduction of the background knowledge/culture of text

Before each unit teaching, teacher should briefly introduce the relevant background knowledge of the text/paragraph, such as: related historical background, related geography knowledge, political economy, literature and art knowledge, religious beliefs and customs, stories or slangs. The knowledge of culture can help students understand better and remember easier. It's beneficial for teachers in his/her teaching progress.

Apply multimedia to assist cultural teaching

As we all know, song, novel, movies are the simple, effective and popular way to learn a specific culture. In the days of the Internet boom, we can say that they are the best and cheapest way to learn English language better. And teach English language more effectively. Teachers can give students interesting and

stimulating tasks so that they are using English in a situation that they enjoy.

Exploring Culture-based Activities

Linguistic behaviour differs from culture to culture and is part of human behaviour. Communication activities here relate to learners participating actively in communication, such as role-playing, information gap activities, problem-solving activities and so on. If an English teacher wants to introduce the students to a general restaurant meal practice, the best way is probably to give the students an instruction in English on how to find the table reserved, how to order and how to pay and so forth that can then be followed by the role playing of the learners. This not only demonstrates how well the students understand them, but also gives them a vivid impression. This approach is helpful in combining cultural content with communication activities.

Bespoken Inside and Outside class interact and other activities

Crossword Puzzles---- teachers can prepare some complicated and esoteric big words in riddle and mark it in different colors. Students can be divided into different groups and guess a riddle about word. The winner can get reward and small gift. It will help students familiar with vocabulary.

On class discussion --- Teachers can organize regular discussions on cultural traits if different countries and nations with the English as first language on the below topic: Classic Movies, Novels, or hot topic news, etc. students can be divided into different groups and so some predation before class and challenge each other. It can help students practice the way of think and expressing.

Role play— Role play can give students an opportunity to use language in new contexts and for new topics. And a lesson will add interest. Teachers can create many different situations for dialogue and ask students to challenge roles in real life. It is the most direct way of understanding the target culture and easily overcoming cultural obstacles and communication conflicts.

Conclusion

One culture or language, as mentioned in this paper, is unique and different. Cultural

differences can be seen as the way in which the customs, laws and life styles of other ethnographic groups are socially organized, developed or communicated in other groups, societies or countries. Therefore it is not easy to understand the target language and it is very important to be aware of the cultural differences, only that will allow someone to respect other cultures and use their languages well.

In this thesis, I firstly explain the relationship between culture and teaching, the traditional and the current situation of English in China. Secondly, the introduction into China and America of traditional culture and the problems caused by cultural differences. After analyzing the difficulties created by cultural variations in English education, I made several suggestions to bring culture within a restricted area. This is the last but most important part in which I explain how to present and present cultural background knowledge in English teaching, in order to help students understand

the essence of language and to develop their full English skills.

In summary, teachers must not only pay attention to cultural differences, but also try to understand and learn the differences so that study and communication are not misunderstood. Students must be taught directly and become aware of cultural backgrounds to overcome obstacles created by cultural differences.

In all, cultural variables have a major part in the teaching of English. The goal of English teaching is to foster the ability of students to learn English through their language and culture. Cultural introductions contribute to promoting students' cultural consciousness of the target language through successful teaching and studying of both language and cultural background. This allows students to increase their English skills and cultural communication of the target language. This fulfils the objective of teaching foreign languages.

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A COMPREHENSIVE STUDY ON LANGUAGE ACQUISITION THEORIES- CIRCUMSCRIBING ON ANALYSIS, COMPARISON AND APPLICATION

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ABSTRACT

Language acquisition and learning have always been considered to be subject to discussion for researchers and theorists. Various theories have been used for understanding language acquisition such as Behaviourist theory and natural approach to language acquisition. Experiments have also revealed that the most important techniques that influence language learning in the children are imitation and practice, for learning a new language. In this research paper made attempted to A Comprehensive Study on Language Acquisition Theories- Circumscribing on Analysis, Comparison and Application.

Keywords: Language, acquisition, learning, Theories, techniques and Behaviourist.

Introduction

Over the last three decades, a variety of theories have been developed to explain the way language education is conducted, identify the factors important for the acquisition of the second language and give advice to second-language instructors. Each language acquisition theory accounts from a distinct viewpoint therefore have certain criteria to categorise and assess each theory.

Discussion of the Behaviourist theory

Brief definition of Behaviourist theory

Behaviourist theory states that a desired behaviour or special response is illicit by a specific stimulus. As per the experiment of Skinner on operant conditioning, any behavioural acquisition that includes language acquisition can take place through punishment or reinforcement. Skinner had stated that the second language might. Be considered as a stimulus for the student learn the language by responding to it.

Application of the theory to second language acquisition

The application of the Behaviourist theory can be applied to the learning of the second language just as the children can learn the first language through imitation, practice, and

reinforcement. Behaviourist theory is about the nurturing of the children by making them acquire the learning of the second language from the environment by observation followed by practice.

For instance, it can be added that when the teacher is attempting to make the students

Learn the second language, it tries to use the technique of reinforcement by making the student practice more words so that the new words from the second language can be reinforced. Moreover, when the teachers are teaching new words in the second language, the students might be rewarded for pronouncing the words correctly. Through reinforcement and a rewarding system, the student can be made to utter more words in exchange for rewards such as an appreciation for the initial learning.

Terms of Natural Approach

The natural approach as a method for the teaching language had been developed by Tracy Terrell and Stephen Krashen by conforming to the naturalistic principles of learning. The theory states that language acquisition is different from language learning and the learning of the second language and its competence can be developed through language acquisition. This theory further supports that language acquisition is an

unconscious process that needs to be followed by language learning that is a conscious process of learning stating the discovery of the rules about the new language other than the first language that had already been acquired before. As per Krashen's theory of natural approach for the acquisition of the second language, there needs to be meaningful interaction between the target language through natural communication. In this process, the children would learn to acquire the second language as the learners are not concerned with the form of the utterance but the message that is conveyed and the understanding of the language. Furthermore, the tenets of this theory state that for second language acquisition there is no need for extensive use of the grammatical rules consciously neither extensive drill nor practice is required. The central hypothesis that is stated in this theory is that a second language is acquired when the children read or hear anything and not on what is being said. Hence, second language acquisition needs to provide comprehensible input where the learner could understand the language outside the classroom situation.

Comparison of Behaviourist theory with Natural Approach

The similarity in the approach in the acquisition of the second language

One of the key similarities between the Behaviourist theory and natural approach is that both the theories have differentiated between language acquisition and language learning process. Both theories state that there is a difference between the conscious and unconscious process of learning for second language acquisition. Another similarity that had been noted in the two theories is the importance of reinforcement in the learning process of the second language. Both the theories assume that language acquisition needs to be reinforced for learning and that while language acquisition is an unconscious process for acquiring new language; it needs to be followed by the process language learning where there are conscious efforts undertaken for reinforcing the language for communication.

Differences in the approach in the acquisition of the second language

The key point of difference between the two theories is that the natural approach states that language and specifically second language is taught successfully only when it is taught for transmitting any message and not when it is taught explicitly for learning consciously. In the Behaviourist theory, there is a deliberate focus on the fact that the students need to be conditioned to acquire a language as a behavioural change through observation and practice. Hence there is a simultaneous focus on both acquisition and learning process. On the contrary, as per the natural theory of second language acquisition, there is more focus on language acquisition than language learning. The need for consciously reinforcing learned language has not been deliberately placed. Other than Behaviourist theory where there is a focus on imitation and practice of the teachers for second language acquisition, in the natural approach, it is assumed that the learners possess the cognitive abilities to acquire a new language by listening. Hence there is a focus on listening skills and students are made to respond non verbally as they are made to follow meaningful input that their competence level. The formal process of grammatical organization of a language as it is done in the Behaviourist theory is not stressed in the natural theory approach. The grammatical organization considered to be pre-requisite in the language acquisition process as in the Behaviourist theory

Analysis of the impact of research in second language acquisition on views on Behaviourist theory with Natural Approach

There have been recent researches when new theoretical implications have impacted the views under the Behaviourist with Natural Approach. As part of the second language acquisition process, recent studies such as **Language Acquisition Device (LAD)** had revealed that the development stages of the children that are part of the children's development including the development of the cognitive abilities cannot be applied to the process of language learning. This further states that second language acquisition cannot be considered to be limited to the stages of

development and the successive cognitive abilities development. Hence, suggesting that second language acquisition and learning can be done in the later stages of development as the learners have the innate capacity of language acquisition that can be done in later stages of development also. This research study has also reflected upon the tenets of Behaviourist with Natural Approach by stating that learners have instinctive mental capability enabling them to learn the second language instinctively and that it cannot be considered as a habitual process as argued in the Behaviourist theory.

Application of analysis to the second language classroom

The analysis of the Behaviourist theory states that in the classroom situation, for the second language acquisition, there is a need for determining the behavioural traits of the learners and to determine how the social environment can facilitate second learning acquisition. Furthermore, it can be stated that in the classroom, as per Behaviourist theory, practice and observation needs to be part of the second language training process. On the other hand, as per the natural approach and its application in the classroom, there is a need for grammar training and listening skills of the children need to be focused upon so that the children can acquire the second language by listening to the language from the teachers. Furthermore, the grammatical 6 of 11 organization of the language is not required.

Teaching approach and eclectic approach to be used

There are various methods such as the 'Grammar translation method' where the

second language can be taught through translating words and sentences from the first language into the second language. Direct method of language acquisition' can be used as a suitable teaching approach for second language acquisition where the language can be taught directly through grammar teaching. Another eclectic approach that can be used for the teaching of the second language is task based learning when task-based learning can be adopted and students can be given tasks to learn a new language.

Example of use of teaching approach in the second language classroom

The task be given to the students:

Students can be given language drills and exercises on new language for enhancing their language acquisition (behaviourism theory) and also they can be asked to take part in storytelling and listening exercises for language acquisition (natural approach).

Resources to be used in the task:

Audiovisual aids can be used for making the children learn a new language through Listening as well as visually observing the words in the new language.

Conclusion

Behaviourist theory states that the immediate environment of the children determines how they acquire language that they speak. On the other hand, it had been argued that language output cannot be enforced but they are allowed to learn spontaneously once the children have acquired comprehensible input of language. The two theories shall be discussed and their implications in second language acquisition had been determined in this study.

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THE COLOR PURPLE: A JOURNEY OF AFRICAN AMERICAN'S WOMAN IDENTITY**V. B. Chitra¹, M. Ravichand², H. Seshagiri³, G.B. Corvino⁴ and B. R. Lakshmi**¹JNTU, Ananthapuram, Ananthapur²Sri Vidyanikethan Engineering College, Tirupathi. Andhra Pradesh³JNTUA, Ananthapuram.⁴University of Turin, Italy,⁵G.Narayanamma institute of technology and science, Hyderabad, Telangana,
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The Color Purple by Alice Walker is an epistolary novel set in the early twentieth century. Illustrates the difficulties and traumas faced by Celie, a young black lady from the rural south, during a period when African Americans were striving for representation and women's rights were being fought. Many other black women in the novel, including Sofia, Shug Avery, and Squeak, face persecution from male characters and strive to create a voice for themselves in a culture that suppresses women, as told via Celie's narrative. She goes on a path of self-discovery, guided by these women and the inner strength she gains through her letters. In the face of discrimination and injustice, one must learn how to hold ground. While Celie discovers her new identity, Walker utilizes the epistolary method to point out prejudice and misogyny in Georgia in the early 1900s.

Keywords: black, rural south, discrimination, epistolary, discovering

Introduction

The Color Purple is a piece of literature that may be read at any time and location. It does not need any further classification since it is just outstanding. As with the most remarkable celebrations, The Color Purple is an honest one that honors what it means to be a black woman and a woman of color. Alice Walker's honesty is belligerent, unyielding, and redemptive in this work. Walker's vision is never tainted by the bitterness that arises from his honesty; instead, the vision remains full of compassion. In addition to not softening its punches, The Color Purple is brave enough to cling onto a beautifully encouraging trust in possibilities, forgiveness, and compassion, as well as optimism. This novel operates on many levels: political, historical, personal, emotional, spiritual, etc. Every single word is used to its full potential, and no effort is spared. All aware that this is a classic work of literature.

Young Celie, whom her father has sexually assaulted, struggles to cope with oppression in the novel. For Celie, the home has never been a secure or pleasant place to grow up. Her mother was unwell did not stop her from refusing Pa, her daughter, from having sex with him while they were together. Because of this, Pa's lusty gaze falls on Celie, starting years of

torture. "When that hurt. I weep," Celie wrote in her prayers to God after the incident. "You best shut up and get accustomed to it," he says as he starts to choke me (Walker 2). Fearful of her father's threatening gaze, Celie refuses to speak to anybody and keeps her true feelings to herself. Renowned novelist Steven C. Wiesenberger describes how "[The Color Purple's] real beginning is not with a letter but with a proscription, the voice of Celie Pa telling her: "You best not ever tell anyone except God" (261-262). To protect herself, Celie begins to journal her experiences and share them only with God, the one person she trusts. Writing helps her realize how vital her connection with God is, as He rapidly establishes himself as a trustworthy person in her life with whom she feels free to share her thoughts and feelings. So all she needs is a confidante whom she loves and whom she has a real sense of reciprocating her affection for her so that whatever truth she tells would be treated with respect. Adolescent Celie keeps a secret diary as a means to escape her abusive family life. Little does she know, and this journal would strengthen her character later on.

After marrying Mr. Celie, Celie's life changes dramatically since she is now a subordinate wife. Mr.'s home was a dangerous place for Celie, where she was subjected to

physical and verbal abuse as well as sexual assault. As a result, she channeled her anger and frustration into the one outlet she had: her letters. After being dragged into an unhappy marriage by her father's cold-blooded actions, Celie must decide how to deal with a guy who has the upper hand in their relationship. Celie expresses her horror at her predicament in a letter to God: "Mr. I was born thanks to my father's labor of love. Mr. is not my favorite person. Take care of his children by marrying me. I am marrying him because he does not love me" (Walker 66). Instead of serving as a marriage between two individuals, these unexpected nuptials acts as a contractor arranged to fulfill Mr.'s desire for domestic assistance, lacking intimacy, passion, or even simple attraction to one another. As a woman and a wife, Celie fills social expectations and becomes a new source of domestic work, but she is soon reduced to nothingness under her husband's abominable control. This is a challenge for Celie and other women like her, particularly in a patriarchal society where males are empowered to take on the self-prescribed position of alpha males in their relationships and to feel entitled enough to take pleasure in how they intimidate their female partners. "In the text, the patriarchy maintains control by pushing the female body into a position of helplessness, therefore depriving the woman of the capacity to form an identity," author and English professor Wendy Wall claim in her essay. Due to their confinement in interiority and subordination, women cannot distinguish between their male partners and determine independence.

Celie is affected by this. It was a first-hand experience as Mr. Constantly spits at me: "you black lady. The goddamned... you're nothing" (212). To strike Celie where it hurts the most, he uses terms like "appearance" and "gender," things she can't alter about herself. He employs this technique to keep Celie captive. Mr._____ tries to convince Celie that the most extraordinary thing she can be is his bride. Author Marc A. Christophe believes that Celie is what her husband wants her to be: "he interprets his wife is being and controls her existence, she lives solely for him and him alone and not for herself..." (284). Terrified of fighting back, Celie's silence lets Mr. take

control of her life, and she ultimately begins to live only for him. The more she buys into Mr. Lies' disgusting lies, the less she thinks that God, the one person she previously clung to, would save her. S harsh reality and, as a result, she distances herself from him and falls victim to Mr. Lies' manipulations.

Celie learns how to be loved and create her own identity apart from Mr. Love when Shug enters the novel. Having spent many hours daydreaming about the beautiful blues singer Shug Avery, Celie is finally allowed to spend Time with her when Mr. brings Shug home to care for her one night when she is ill. To begin with. As Mr. Did, Shug treats Celie horribly, calling her ugly and making light of her appearance and education. He also never appreciates what Celie has done for him throughout Celie's sickness. The more Time Shug and Celie spend together, the more comfortable Shug becomes around Celie, and they develop a special bond: one of genuine friendship and passion. When Celie tells Shug the truth about her sexual abuse for the First Time, she establishes a new bond and trust with him. After telling Shug about her past, Celie sobs, "Nobody ever loved me" (117), to which Shug responds, "I love you, Miss Celie" (118), leaning forward and kissing her, expressing emotions for Celie she never knew she possessed. Celie cherishes every second they spend together because she is discovering a new facet of life: Happiness. Celie writes to God about Shug's impact on her life, saying, "My life stopped when I left home. It has come to an end thanks to Mr. However, Shug is a good place to start over" (85). It gives Celie a feeling of importance and acknowledgment while also providing her an identity other than simply being the wife of a guy who does not love or care for her. As a result, Celie has spent years hiding in the shadows, never finding out who she is for herself because of the guys who are constantly tearing her down. Shug provides her with the chance to guide her transformation from a weak and subservient girl to a confident, powerful, and independent lady.

Moreover, challenge Mr.'s longtime control over Celie with her newly discovered identity and a sense of purpose in life. When Celie discovers a trunk full of letters from her late sister Nettie that her estranged brother, Mr.

Has, has been concealing, she is enraged. Celie confesses to Shug, "I feel ill. I'm completely numb right now. What am I going to do if I want to avoid murdering him? (Walker 150-151). Previously, Celie would have accepted defeat in the face of Mr.'s terrible deeds, but now she is blazing with rage to do something about it. Frustrated with women who take advantage of them, Celie resolves to make a stand and leave Mr. Behind when Shug asks her to join him in Memphis with him. While fighting Mr. B, Celie shows just how much she is changed since her Time with Shug. When he does not let her go, he says, "You're a lowdown dog. Time to leave you and enter the creation is now. Moreover, your demise is the perfect welcome mat for me. "(207). it is at this moment that Celie realizes the actual meaning of power: the ability to decide for oneself, to decide for others, and the ability to inflict punishment. She successfully flips the script on her relationship with Mr. and takes control of her destiny instead of letting him make decisions for her. As the novel progresses, Celie Metamorphose [zes]-from a miserable lady who accepts her fate into a liberated person who chooses to take control of her life, says Christophe (285). Celie's long-awaited freedom and independence will be made possible thanks to this much-needed character growth.

Through Celie, the novel's primary character, the narrative of development, sexism, racism, and the importance of one's identity is told. The transformation from an ignorant exploited adolescent to a strong,

independent woman who knows how to take on society and the patriarchy head-on. Celie is a fearless leader who is determined to shape her destiny. Through all of her trials, Celie becomes a proudly independent business owner, living in her own home and doing the best she can with the life she has been given. Since starting on this path, she has discovered the value of being true to herself while also learning to love and be loved in return, both of which she never knew as a kid or for most of her adulthood. As the novel concludes with a celebration of kinship between Celie and Nettie, as the two are eventually emotionally and joyously reunited after many years, Celie's extraordinary tale symbolizes one of reconciliation. This is all in addition to Celie and Mr.'s unexpected shift in the relationship, which wins him the privilege of having his first name put in her journal as Albert, as a genuine apology and regret the cruel manner he treated her. Assisted by a powerful female sisterhood (Shug and Nettie), Celie overcomes racism, persecution, and sexism to discover her authentic self, opening the door to a fresh beginning and her long-awaited second chance at life.

Conclusion

The Color Purple was a groundbreaking novel that helped end the taboo around domestic and sexual abuse by telling the stories of the survivors. Alice Walker's epic, filled with compassion and stunning imagery, takes readers on a journey of forgiveness and love.

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ESTABLISHMENT OF THE 'SELF' IN MANJUKAPUR'S "THE IMMIGRANT."

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ABSTRACT

This paper discusses Nina's development of 'Self' as a thirty-year-old spinster who lives in India with her widowed mother Mrs. Batra. She marries Ananda, a dentist living in Halifax, Canada, after his parents' deaths and at the urging of his uncle Dr. Sharma and aunt Nancy. Nina's nuptial night becomes abortive due to the sexual inadequacies of Ananda. Her desire to conceive begins to become a distant dream. Much against her own wishes, she joins a course on library sciences and becomes a friend of her co-student Anton, who is already married. They soon enter into an illicit relationship. Ananda undergoes training at a sex workshop to overcome his inhibitions. Nina understands that Anton is wanton and only needs her for sex when he tries to molest her. She distances herself from him. Nina's mother dies. When Nina wishes to solely rely on Ananda, the discovery of his sexual relationship with Mandy, a receptionist forces her to walk out. Nina experiences all the problems that an immigrant confronts on a land that is not her own. Besides that, she also has to face the problem of establishing herself as a woman. Her involvement with La Leche League, and later with Beth and Gayathri, enables her to become self-sufficient. She finally resolves to break the shackles and establish her own 'self' by moving away from Ananda and start working.

Keywords: Nina, Ananda, Halifax, Immigrant, Adjustment, Values, Relationship, Conception, La Leche League, Assertive

Introduction

The Immigrant is the fourth novel by ManjuKapur. Chandra Bhushan Singh remarks, "The immigrant is a fine and sensitive story of Nina who dwells endlessly between her desires, her passions, her hopes and her frustrations. Nina's story is the story of the woman belonging to high profile society where establishment in abroad is considered as the perfect boon in life. Her marriage, love, frustration, emotional breakdown, post-marital sex, etc., have been dealt with extra care and in the light of fast changing attitude and approach of human being for the sake of modernity. Nina, the novel's lead character, is a thirty-year-old spinster who stays with her widowed mother. Her mother Mrs. Batra and friends express their concern and sympathy over her remaining unmarried.

Apprehensions of unmarried people in India

Nina is apprehensive about her life too turning out to be bitter if she remains a spinster like her friend Zenobia. She thinks about her mother who had been remorseful and expectant of her marriage. Nina's father's death left them in distress. Nina falls in love with Rahul, her teacher in the English Department though there is fifteen years age gulf between them. However, she keeps this relationship a secret

from her mother. Nina seeks for respectability in her love, "Her self-respect finally forced her to choose loneliness over compromise. Silently she grieved, the only men in her life long dead authors". (IMGT6)

Every unmarried, aged person irrespective of gender faces the problem of enquiries. In Indian society, it is strange to understand whether people enquire about the marital status to express sympathy or remind them of their misery! Zenobia always urges Nina to apply for a PhD and go abroad because Indian boys are looking for traditional Indian girls. Nina and her mother are awaiting the arrival of an astrologer that will resolve the unpleasant alignment of stars that has dominated their lives and is gradually giving way to a more favourable mix. After finishing the conversation with the astrologer, they go back home with hope about their future.

Ananda, a Brahmin from Uttar Pradesh, on the other hand has been practicing as a dentist in Canada who had moved to Halifax, Canada after the death of his parents and over the insistence of his uncle, Dr. Sharma and his aunt Nancy. They always explain the western domestic style of living. Ananda finds Canada an entirely strange place. There is loneliness throughout day and night. It is like hell to him and he has to do all domestic chores on his

own. *Rushdie summing up the entire experience and predicament of an immigrant says, "A migrant suffers traditionally a triple disruption. He loses his place, he enters into social language, he finds himself surrounded by beings whose social behaviour and codes are unlike and sometimes even offensive to his own."* His uncle, however, says, *'You will learn soon, beta,'* (IMGT20)

The gulf between the East and the West

Ananda soon realises that the western society is entirely different from that of the Indian. In India, people rely on others heavily for every work. They don't prefer even 'Self-Service Hotels'. In the western world, the 'Self-Work' is the golden rule. However, in western society, there are no servants to do the domestic works. For an immigrant, adaptability is the key for success in terms of climate, timezones, food habits, culture, etc., Ananda slowly acclimates to Canadian climate and culture. In India, he used to celebrate festivals like Holi, Diwali, Dussura with his parents. Now he is alone but celebrates with a few Indian families and savours delicious food from Taj Mahal restaurant. Dr. Sharma's remarks echo his quest for identity,

"Beta, I was once like you. I too wanted to leave my country behind when I left its shores".

"Twenty years ago there was no India Club. I am one of the founding members. I realised that if I forgot everything of mine, then who was I? When the children came, it became even more important to keep in touch. Nancy thinks like I do, after all there is something so graceful about our rituals. She loves the opportunity to wear her Sari. Then at Christmas we all go to Church, that is fair, don't you think?" (IMGT28)

Dr. Abida Farooqui analysing the attempts of the immigrants to discover their roots comments, "Dining at Taj Mahal and celebrating Holi and Diwali in a hybrid manner hold meaning and promise for the expatriate to connect to his land, which in reality remains a myth. Such simulations are attempts at finding a sense of belongingness, and not really prompted by the desire to be back in India to experience the real. Lara's question as to why her father never went to

India too often, if he really cared for it, throws light on the fact that the immigrant is not in a quest for the real, but looks at these simulations as a cushion to fall back on, as a prop to find a sense of belongingness."

There is a great difference between Indian and Canadian life and family styles. This is reflected when his uncle says, *"Family here means different things, beta. We help you be independent. We do not want to cripple you, he could almost taste the sugar on the pill being used to get rid of him"*. (IMGT29) Ananda imbibes social skills from his three year stay at Dental school. Gary Geller, his friend whose father is already a dentist, always travels in Asia and knows India well as he has broad cultural empathy. Ananda, later moves to Gary's house for a rent of fifty dollars a week. Gary's parents always treat him well. Ananda is helped by Gary to shift his luggage from his uncle's house while Lara and Lenny, Ananda's cousins bid farewell as their father preached them regarding the bonds of Indian families. There is an interesting domestic conversation,

"Ah yes, Dr. Sharma has been a long time, hasn't he?"

"Twenty two years, but he began with meat when he was a student in India".

"Andy here is a late starter. But soon you will be asking for steak," Gary rallied".

"Cows are sacred in India, Gary. You must not make fun of a person's beliefs," said Mr. Geller".

"I'm aware of that, Mom - I haven't travelled in India for nothing - but Andy knows what I mean. When in Rome do as Romans do". (IMGT33)

This is not just regarding consumption of food. Infact, they represent the entire outlook or mental framework that undergoes a revolutionary change once someone goes abroad. Even those who are considered to be the hardcore supporters of Indian culture and tradition are bound to deviate. It is to be understood that 'Live-in relationship' is quite common in the foreign countries whereas in India, it is not possible. Kim and Gary, Ananda and Sue go downtown film hall holding hands. The two pairs go to a lonely place for romance. Sue and Ananda begin to engage in foreplay. Before they go for sex, he reaches climax. Sue

reminds him of his inadequacy. In India, women are shy, timid to express their feelings regarding sex but foreign girls are more proactive and free to express or share their views on sex without any deterrents. It is quite natural in their upbringing. It is common for the foreigners to shift their love interests. All their relationships, particularly those that revolve around sex are just make-shift arrangements.

Loneliness of Ananda and Nina

Ananda yearns for a companion. Being alone throughout life may be difficult. In India, parents search for a girl. But in Canada, children have to find out their partner. His best friend, Gary arranges dates for Ananda in vain. He makes it not only his house but also his clinic. The proposal of marriage alliance with Nina comes his way. Ananda is happy because he is going to get married to an Indian girl. Mrs. Batra is very much excited at her daughter's future. Nina has some doubts about his 'will' to marry an Indian girl. Nina contemplates a lot and then writes a letter to him and then the frequency of exchanging letters increases. Nina tells her mother, "Canada seems like a nice place... What is there in this country now? Nothing. You know that as well as I do". (IMGT61)

Nina is concerned about her mother's aloneness after her marriage. Nina shares her insecurities with her mother, *'I'm not sure, Ma, it is such a big step. And so far away. It means leaving everything, job, friends, you. If anything happens, I'll be left with nothing.'* (IMGT74) Nina's brain is buzz with plenty of thoughts about her future with Ananda. She feels that marriage is a question of adjustment as she has to live with a person with whom she does not know much. Nina and Ananda are tied up in the marital knot. The first night becomes abortive due to Ananda's premature ejaculation while Ananda falls asleep during the other. Nina migrates to Halifax. Nina says that she is flexible to eat when he asks her whether she is vegetarian. Ananda is habituated to eat non-vegetarian and to drink beer. They become busy with their domestic chores. Nina shares everything with her mother and Zenobia except her bed room experiences.

Immigrants and their struggle for identity

Dr. Sharma is the senior immigrant who has imbibed all the experiences that make up an immigrant. He is a pathshower to his nephew Ananda, who, in turn, conveys the same message to his wife, Nina. After a long time, Ananda's close friend, Mr. Gary invites the new couple to his house. The way the foreigners dress is quite different from that of Indians. Though Nina prefers to be natural and traditional, she buys jeans and shirts. When she wears her traditional dress Salwar Kameez no one recognizes her but in jeans, she becomes psychologically accessible to the whole city. Ananda is very pleased at her change. He even wants to be called, 'Andy' by his wife.

'There was a subtle distinction between calling me Andy and my name is Andy, which Sue was perhaps not in a position to appreciate. To sensitise her, Nina briefly described Ananda's efforts to assimilate.' (IMGT154)

The name change from Ananda to 'Andy', Sue's grandfather 'Dmitri' to 'Jimmy' are acts of merging of identities. There are some attacks at non-locals. This incident makes immigrants get concerned about their security. However, Ananda feels that it is useless to be scared by such incidents.

Nina's yearning to attain motherhood

Nina's curiosity for a 'child' grows day by day. She calls her mother and takes opinion to consult doctor in order to take treatment but Ananda dislikes all this and he says that they have not been married that long so as to become apprehensive. When Nina goes to Sue's house for advice, she comprehends and suggests her to come over for the next meeting of the La Leche League, which is an association of nursing mothers where all mothers meet to discuss over their problems. Nina still feels, *'If only I were home I would have somebody I could talk to, ask is there anything wrong, am I worrying too much, should I see doctor, is it too early, am I being as alarmist as my husband insists, how much time should I give it? I am thirty two. Is it already too late?'* (IMGT162)

Nina's each doubt about her conception reveals her irresistible yearning and fascination for motherhood. According to Indians, a woman becomes complete only when she gives birth to child. 'She could find the reasons for not

conceiving which might be diverse, 'The stress of being in a strange country could be a reason for not conceiving....The anxiety and strain often took the desire out of sex, and then the marriage often broke up.(IMGT162-163)The life of Nina, according to Scurr, "is already so pressured in professional and reproductive terms, becomes an even more impossible balancing act inside a foreign country."The relationship between wife and husband depends on various aspects. Conception is a boon. Woman craves for motherhood. Nina takes an appointment from a gynecologist, Dr. Abbot and answers to all his questions. She asks Ananda too to undergo tests but he overlooks it. One morning, Nina hears voices in Hindi about KumbhMela, an extremely auspicious event for Hindus.

"Today is the day of the MahaKumbh, the day the spiritual blends with the ordinary, when the muted murmur of millions of pilgrims, marching to the Ganga, are matched by the early morning war cries of the Naga sadhus. Two crore faithful will bathe in this river today. The confluence of the Ganga, Yamuna and the mythological Saraswati has turned into an ocean of human beings immersing themselves in the holy waters to the chanting of Vedic hymns, blowing of conch shells and beating of drums". (IMGT 172)

Ananda's involvement in a sex therapy

Nina and Ananda are excited about the event. It was of more concern to Ananda than Nina as he enjoyed the celebrations in his childhood. Ananda finally meets Dr. Hansen and begins to undertake a workshop about sex therapy. Marty, a young and beautiful professional sexual helper starts therapy. Nina joins Beth's association and becomes as member of the Team where she notices 'GoGo' (Gayatri Gulati), an Asian. Ananda doesn't like the thought of changing the association. To avoid dependence, the association helps them to have cooperation with each other in order to protect themselves from male dominated society.

'We all have problems,' Beth started, 'and we all need help, right? Now, how are we going to get it? So far, the only way has been through professional counsellors, therapists, psychoanalysts, usually men, usually with

biased attitudes that are considered normal. As a result, male-female power equations are further replicated, with the difference that the woman is now paying for this shit. (IMGT 214)

Le Leche League and Nina's self realisation

Beth introduces Nina to everyone in the association. The actual aim of it is empowering themselves against all sorts of oppression. Gayatri says that she has to be brave and that she will meet success one day. Her philosophy is quite apparent, "We are conditional to think a woman's fulfilment lies in birth and motherhood, just as we are conditioned to feel failures if we don't marry".(IMGT230)Nina is in a dilemma about her getting admission into either PhD or doing any other course. She is interested to work in the colleges but Ananda wants her to be a librarian. Nina becomes disappointed and says, "I miss home-I miss a job-I miss doing things. I feel like a shadow. What am I but your wife?"(IMGT 233-234)

Nina's realisation occurs in the association. She is taught there about individuality, self-identity, self-respect, freedom, seeking for recognition, etc., She begins to feel 'emptiness' within. A sort of 'identity-crisis' envelopes her. C.S. Singh says, "the women characters struggle to redefine their role and identity in the light of feminism." Ananda has illicit liaison with Mandy, who is a receptionist. He feels sexually at ease with Mandy. Nina is more homely and does not trigger the sexual impulses in him which kills his sexual drives. Nina wants to be a teacher or a lecturer which gives one a scope for one's own 'identity', for being authoritative, to vent one's views, share vibrantly one's opinions and mould others. However, against her own wishes, Nina applies for admission to build her career as a Librarian to get Canadian identity. Nina meets Anton, who is already married. They soon fall into a banter relationship. It is common in Canada to have relationship between men and women, especially with immigrants. In Canada, nobody owns anybody.

Nina at crossroads of traditions of the native land Vs practicalities of the abroad

Nina is torn between her own traditional values and that of the practicalities of the west. She

suffers from a deep sense of isolation and rootlessness that every immigrant senses sooner or later. Ananda, in contrast, tries to convince her by saying that they are comfortable with their identity, jobs, status and better standard of living. Ananda gets a ticket to Nina for her short visit to India. He feels himself that this is a beautiful opportunity to him to spend time with 'Mandy'. After few days, Nina tells her mother about her life in Canada. Her mother examines her carefully and asks about daughter's future regarding her conception but Nina says that they are trying. The writer, through the character of Nina echoes the futility of marriage, "*Marriage was a social institution, she reminded herself. A certain amount of pretence was necessary for its successful functioning*". (IMGT 285)

Nina's repulsion of Anton and her discovery of Ananda's deeds

Nina returns to Halifax. Her dreams of living a blissful, conjugal life in Canada begin to melt down. During the field trip to New York, Anton makes an attempt to molest Nina in the hotel room but she thwarts it. She begins to despise Anton. Nina feels that she has become all alone in her life and everyone has tried to make use of her. Finally she gets qualified for a job. She comes to know that her mother died of a cardiac arrest and is aghast with sorrow. She goes to India to fulfil the rites and comes back. She feels that there is no one left to her in the world other than him. She later finds a wavy blond hair net to her pillow when she is making her bed.

She at once judges that someone was all the time sharing bed with Ananda during her absence. The revelation tears her apart. The sanctity of marriage is thus lost. It all has come to deception, lies and betrayal. Nina decides to break away from the mess of marriage and unhappiness it produced. Anton makes a proposal to help her but Nina induces a sense of guilt in Anton and her resistance is a small victory but very assertive. Even at home, she considers confrontation with Ananda on his infidelity and analyse the reasons behind their mutual betrayal. Ananda tries his best to cheer her up pretending as if nothing had happened in vain. He feels that she was always a start

contrast to him. The conversation is a testimony for it,

'You are a drifter. One needs some purpose in life. One needs to give back. You are always taking.'

'To whom should I give back? You? Canada?' He replied with dignity, 'I am not talking about myself. But, yes, this country has offered you a lot. Did you get a full scholarship or not? Do you think such a thing is possible in India, or even in the US?'

'I am sorry, Ananda, I can't be as grateful as you want me to be.

Consider it a character defect.'

He frowned. He hated levity, the kind of cleverness that allowed people

To take refuge from serious issues. (IMGT 327-328)

Ananda's stress and his persuasion Vs Nina's resolve and her identity

Ananda kept his own stress close to his heart. He married in consonance with his family's wishes. He feels that an immigrant from India to Canada should be courageous to explore all possibilities and subsequently all difficulties involved in that. Marriage brought a significant change in his life but in all these, his wife was left behind. Nina graduated and applied for jobs everywhere but in Halifax. Nina tells Ananda clearly that she needs to get away for work. Ananda tries to question and persuade her to stay and work in Halifax in vain. She hoped independence would facilitate her thought processes. She looked down the path on which there would be no husband and saw the difficulties, the pain, the solitude.

"'I need to be by myself,' she clarified".

"'Away from me. Why don't you say it?'"

'Yes, away from you.' (IMGT 329)

Nina resembles like Nora of Ibsen's *A Doll's House* where she slams the door on the face of her husband and decides to walk her way out into the world. Nina gets an interview call from the University of New Brunswick. She, in her heart of hearts thanked the colleagues at HRL, Beth, Gayatri, Library School and the women's group that encouraged her to be angry and assertive. The entire experience of an immigrant

is beautifully summed up by the writer in the end,

“Perhaps that was the ultimate immigrant experience. Not that any one thing was steady enough to attach yourself to for the rest of your life, but that you found different ways to belong, ways not necessarily lasting, but ones that made your journey less lonely for a while. When something failed it was a signal to move on. For an immigrant there was no going back. The continent was full of people escaping unhappy pasts. She too was heading towards fresh territories, a different set of circumstances, a floating resident of the Western world. When one was reinventing oneself, anywhere could be home. Pull up your shallow roots and move. Find a new place, new

riens, a new family. It had been possible once, it would be possible again.” (IMGT 330)

Conclusion

Therefore, Nina becomes self-assertive and resolves to venture into a world of her own, free from all dependencies and expectations from others. Candy D.Cunha remarks, “ManjuKapur, in her novel *The Immigrant*, deals with the immigrant experiences which are an important theme in the mosaic of the Western society. She writes to unite people. Her aim is to destroy myths and stereo types. She hopes that through her writings, she could dissolve boundaries between people of different backgrounds, communities, ages and even different worlds. Her writings span cross more that these boundaries and explain the problems of women which are not easily expressed.”

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IDENTIFY DEFECTS OF VISUAL ACUITY AMONG SCHOOL CHILDREN IN SELECTED SCHOOL, AT ANICHAKUPPAM, TAMIL NADU, INDIA.

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ABSTRACT

Introduction: Eyes have been the most precious human organ for their function of vision, expression and beauty. Eyes are supreme among all sensory and action organs. Children are wealth of tomorrow. Children are the major consumers of preventive medicine. In India about 35% of total population is children below 15 years of age. Children should be given specific attention to live and develop well. Good vision is a vital to success. For better reading & writing, visual skills are needed for the school children. New research estimates that a million children have an undetected vision problem, while almost 70% of schools do not have any eye screening, which was described as "an absolute public health disgrace" by Bob Hughes.

Objective: 1. To assess the defects of visual acuity among school children.
2. To assess the family history of defects of visual acuity among school children.
3. To associate defects of visual acuity with selected demographic variables.

Methodology: A descriptive study was carried out over a period of one week among 141 school children (5-14 years) studying from 1st to 9th standards in Ryan Matriculation School, Anichakuppam, Tamil Nadu. Samples selected by convenient sampling technique. Informed consent from parents and assent from participants were obtained. Interview questionnaire were followed for collecting the complete data. Afterwards children's eyes were tested by using Snellen's chart graded as short sighted and long sighted. For each individual it took approximately 20-30 minutes taken for finishing the questionnaire. The obtained data was analyzed using descriptive and inferential statistics.

Results: The collected 141 school children are taken for the investigation. The study findings revealed that majority of the children were (46.8%) were belong to 9-11 years, 46.8% & was males and 53.2% were females. Most of them (83.7%) were from rural and 16.3% from urban. 7.1% were having defects of visual acuity in right eye and 8.5% in left eye. The family history of defects of visual acuity denotes that sleep habits of mean value is 8.87 and SD value is 904. This shows, there is no significant association between the eye defects and demographic variables.

Conclusion: The findings provide the important insight that leads us towards a new direction in addressing the defects of visual acuity and motivate the parents to know the examination of the eye. The present study reflects defect of visual acuity in right eye are 7.1% and in left eye is 8.5% between school children.

Keywords: Defects of visual acuity, school children.

Introduction

Vision plays a vital role in the reading process. Unnoticed refractive errors for many years led to low vision. The World Health Organization has grouped Refractive error with trachoma, ocular trauma, infectious diseases, and Vitamin A deficiency are the common cause of blindness and vision impairment. It is important to detect refractive errors among young children. Eye test is more needed for children due to vision problems i.e. 5 to 10% in preschools, 25% in school aged children In India, 2-5% of the children are affected with vision problems. In Puducherry, approximately 6.37% and the prevalence was even higher among children who belonged to urban region. Children having family history of wearing spectacles had expected to have visual impairment.

Need For The Study

In 2010, the WHO had estimated across all people of India (285 million) and also worldwide 39 million were lost their vision. In addition, people live in growing countries have 90% visually impaired and 21.9% are in India. In global level, more or less 18.9 million children under 15 years visually impaired. In 2010 Cross sectional study were conducted on refractive error among school children in Tamil Nadu and Puducherry It reveals that the quantity of children living in urban area was significantly more with RE (17.5%) than rural area (12%) and Myopia was (14.6%) in RE. Screening helps to find out vision problems as early and correction with spectacles. An eye defect has been given high priority under the NPCB. Therefore, the investigator felt that this is required to find eye defects among children

between 5 to 15 years at selected schools, Tamil Nadu.

Objectives

1. To evaluate the defects of visual acuity in school children.
2. To assess the family history of defects of visual acuity in school children.
3. To associate defects of visual acuity with selected demographic variables.

Hypotheses

H₁: There will be a positive correlation between family history and defects of visual acuity of 1 children.

Materials And Methods

The quantitative research approach was adopted with descriptive research design. The setting was selected Ryan matriculation school at Anichakuppam. Population was school students in Iststd to IXth std. 141 students was computed using formula $4pq/d^2$ assuming the level of 0.235, confidence to be 95% and a relative precision of 7%. The samples were selected those who met the inclusion criteria. The sampling technique used was the convenient sampling. The tools were prepared by the investigator after an extensive review of literature and with the guidance of experts. It was formulated to assess family history of defects in visual acuity-interview questions to

parents. Snellen’s chart used to check the visual acuity of the children.

Description of the Tool

- Section- A: Socio –demographic details. Socio–demographic data were collected such as age, gender, height, weight & area of residence.
- Section-B: Children’s family history of defects of visual acuity- Interview questions to parents.
- Section-C: Snellen’s chart for checking visual acuity. Children those who are having 20/20 observed as normal visual acuity and more than 20/20 observed as abnormal visual acuity.

Analysis and Interpretation of Data

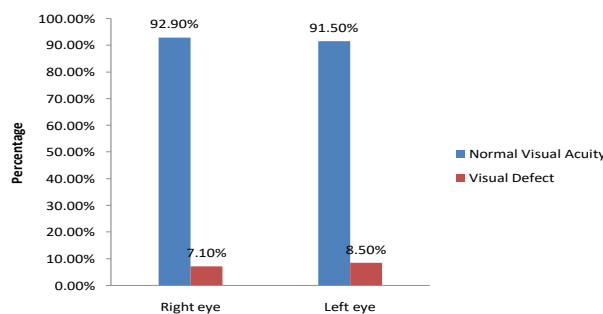
Results

Section-A: Frequency and percentage distribution according to demographic variables: The majority of them (46%) were belonging to 9-11 years, 53.2% were females, 83.7%. of them stay in rural area, majority of the children’s height range between 121-140cms (51.15) and weight between 26-50kgs (56.7%).

Section-B: Frequency and percentage distribution based on defects in visual acuity is 7.1% in right eye and 8.5% in left eye.

Section-B: Frequency and percentage distribution of school children based on defects of visual acuity.

- **Figure -2:** depicts that 7.1% of the participant had defect of visual acuity in right eye and 8.5% in left eye.



Section-C: Distribution of children according to family history of defects in visual acuity.

56% of the school children said that to see clearly at distance, 48.2% of them told that sleeping at night for 8 hours and all the participants eat non-vegetarian diet.

Section-D: Association between the defects of visual acuity with demographic variables.

Findings showed that no significant association statistically between the eye defect and demographic variables.

Domain	Mean	Standard deviation
Sleep habits	8.87	0.904

Section-E: Mean and standard deviation for sleep habits of children.

n=141

This table denotes the mean sleep habit is 8.87 and SD value is 0.904.

Discussion

- Demographic variables of the school children- Majority of them (46.8%) were 9-11years of age, 46.8% were males and 53.2% were females. Most of them were from rural (83.7%) and 16.3% from urban.

- The first objective was to assess defects in visual acuity of children.

Defects in visual acuity on right eye are 7.1% and left eye are 8.5%. Chinta kumar et al, (2016) conducted for school children at Vijayawada city. Their study shows prevalence of defective vision in Rt and Lt eyes 34%.

- The second objective was to find out the family history of defects of vision. Results reveals, 24.2% of family members have defects in vision and 4.7% are advised to wear glasses but not wearing. Mita Saha (Dutta Chowdhury) et al, (2015) done a prevalence study on refractive error in school children at west Bengal. Included 1840 students' age

between 5-15years and screened for vision by snellen's chart, retinoscopy and post mydiatric test. The results showed 13.86% had refractive error and noted that there was a relationship between family history of parents or siblings having refractive errors. The third objective was to associate defects of visual acuity with selected demographic variables.

- there was no significant association between the eye defects and demographic variables. This objective is supported by James M Tielsch et al, (2019) conducted a prevalence and severity of vision loss and ocular disease and their relationships to socioeconomic and other risk factors. among Americans. This study made up of 5300 subjects and concluded that visual impairment was associated with age, race, general health status, educational level, income and employment status. An association of race with blindness and visual impairment was reduced, but not eliminated, after adjustment for these socioeconomic factors, indicating that socioeconomic status itself is an important determinant of visual impairment.

Conclusion

- The findings of the study provide important insight that leads us towards a new direction in addressing the defects of visual acuity and motivates the children to know the eye screening. This study finding showed defects of visual acuity of right eye are 7.1% and in left eye is 8.5%.

- Eye Screening in school should be carried out periodically. In addition, school children and their parents can be educated about eye problems. Vision screening of school children will be useful in detecting vision problems at early stage.

Scientific Implication And Recommendation

A related study can be undertaken at different setting and with mass sample size for more Justification and Generalization.

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ANTIFUNGAL ACTIVITY OF OCIMUM SANCTUM L. AGAINST ASPERGILLUS SPECIES ISOLATED FROM DISEASED COWPEA SEEDS

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ABSTRACT

The fresh leaves extract from *ocimum sanctum* was tested against *Aspergillus* species isolated from the diseased cowpea seeds from the study area. In the preliminary studies almost all extracts show the antifungal properties against tested fungal stains. Methanol extract shows the highest percentage of inhibition compare to the other extracts in three tested fungal stains. The antifungal activity was measured by zone of inhibition.

Keywords: *Aspergillus* species, *Ocimum sanctum*, Zone of inhibition, Antifungal activity

Introduction

Ocimum sanctum is a medical shrub and commonly known as Tulsi. Tulsi (*Ocimum sanctum*) is potent aromatic shrub belongs to the family Lamiaceae. Among of the all-medicinal plants, aromatics herbs show the best source of bioactive compounds and these bioactive compounds were used in both agriculture and ayurvedic medicine (Mathela, 1991; Cutler and Cutler, 1999). More than 700 medicinal plants are used in the traditional folk medicine (Ali-Shtayeh et al, 1999) Present days a numerous studies have been conducted to find new alternative sources of antimicrobial agents, especially from plants, due to increasing development of resistance by microorganisms (Yamani et al.2016). Within Ayurveda the tulasi known as the incomparable one and also known as Mother Medicine of Nature and Queen of herbs (Singh et al., 2010). In India, Tulsi is used in Spiritual rituals and living life styles. Tulsi have provide a vast array of health benefits. The daily consumption of the tulsi increase to prevent disease and increase general health benefits. It has been one of the most valuable traditional medicine in India almost every part of the plant has been found to possess therapeutic properties (Singh et al., 2010). Traditionally the leaves of this plant were used as a medicine for asthma and other respiratory problems (Jeeva GM. et al,2007). Scientists have examined several pharmacological effects of tulsi products which were obtained by different extractions methods (Prakash and Gupta ,2005), reviewed all the

scientific studies of the therapeutic significance of Tulsi and eugenol, a major component of Tulsi. The antimicrobial properties of essential oils distilled from Australian-grown *Ocimum sanctum* (Tulsi), to quantify the volatile components present in flower spikes, leaves and the essential oil, and to investigate the compounds responsible for any activity The pharmacology studies may be helpful to establish a scientific basis for therapeutic use of the plant. About 54 compounds identified in Tulsi leaves, flower spikes, or essential oil, three are proposed to be responsible for this activity (Yamani et al.2016) In Ayurveda Tulsi (*Ocimum sanctum* L.) have been shows a well-documented therapeutic potential and also described as DashmeaniShwasharni (Antiasthmatic) and Antikapidrugs (Ashish Ranjan Singha, et all .2013). The main chemical ingredient in this plant were eugenol, carvacrol, methyl eugenol and caryophyllene. Thulsi is abundant in essential oils and antioxidants, which are effective in reducing the effects of stress on the body. The antifungal activity of the *ocimum sanctum* plant extracts was reported and the bioactive compounds extracted from plants leaves of the *ocimum sanctum* shows the antifungal activity and these are used in the herbal medicine nowadays. (Balakumar. S et al. 2011). The present study was to evaluate the antimicrobial activity of extracts from the leaves of the *ocimum sanctum* plant against there pathogenic fungal stains isolated from the diseased or contaminated cowpea seeds.

Using plant crude extracts on the control of antimicrobial activities is increased due to their medicinal, antibacterial, antifungal properties (Abdolmaleki et al,2011). The fresh leaves of the plant were taken for using against antifungal property of tested pathogens. The antifungal activity of these plant was evaluated on mycelium growth on petri plate.

Aflatoxin was produced in *Aspergillus flavus* invades peanuts, cotton, corn and certain seeds under favourable conditions of temperatures and humidity. A significant portion of the agriculture crop was contaminated due to mycotoxins, especially these mycotoxins contamination was produced by *aspergillus* in grains, fruits and seeds. (Janardhan et al., 1999; Chandra and Sarbhoy, 1997; Devi et al., 2001).

The aromatic medicinal plants were widely used in the folk medicine due to their properties like their volatile oils. The essential oils from many medicinal plants shows the antifungal activity (Kalemba & Kunicka, 2003) Present controlled methods like optimal culture practices, have reduced but not eliminated the pre-harvested contamination of aflatoxin in susceptible crops. The identification of the new antifungal activity against *A. flavus* could lead to the development of biotechnological strategies for controlling aflatoxin contamination and increase the plant resistance to fungal invasion through genetic engineering (A.-L. Moyne et.al, 2001).

Materials and Methods

Collection of plant material: Fresh diseased free leaves of *Ocimum sanctum* were collected from plants in local areas. Freshly collected leaves were washed thoroughly and shade dried. The dried leaves were grinded and preserved for further use.

Preparation of extracts: The dried leaves were grinded into a fine powder and it was preserved in an air tighter container for further use. About 50 grams of dried coarse powder of *osmium sanctum* was weighed and used for cold maceration method by different solvents like ethyl acetate, hexane, methanol and distilled water. The known powder of plant extract was soaked in 250 ml in each solvent for 24 hrs at room temperature under at shaking condition. The extract was filter by whatman no.1 filter paper. The finally filtered

extract collected.100mg of each extract was weighed and dissolved in 1 ml of 5% DMSO (dimethyl sulfoxide) and it can be used for further analysis.

Tested fungal stains used in the study:

The seed samples of cowpea seeds were plated on Czapeck -Dox Agar (CZA), Malt Extract - salt-agar (MESA) and subjected to standard Blotter Method (SBM) to isolate the frequently occurring seed -borne phytopathogenic fungi and storage fungi associated with these seeds. There species of *Aspergillus* were frequently isolated viz., *Aspergillus flavus*, *Aspergillus fumigates*, and *Aspergillus Niger*. The test fungal organisms which were isolated from cowpea seeds are used as test organisms. Tested fungal stains were *Aspergillus flavus*, *Aspergillus Niger*, *aspergillus fumigates*. All the tested stains were maintained at potato dextrose agar (PDA) slants at 4 °C.

Antifungal activity:

The antifungal activity of plant extracts was performed by agar well diffusion method. For the antifungal activity of plant extracts, the stock cultures of the fungi were maintained by inoculating in broth media and grow at 27 °C at for 72h. The potato dextrose agar plates were prepared. Each petri plate was inoculated with 10^3 spores/ml (0.1 ml) and spread evenly on the solid media. The wells with 6mm diameter bored by using sterilized cork borer and then filled with test samples of 100mg/ml concentration. Respectively an antifungal fluconazole disc (25mg concentration for drug) and DMSO were also placed for positive and negative control. All the petri plates were incubated at incubation chamber for 5-7 days at 27 °C and then the diameter of the zone of inhibition were calculated.

Results

The Zone of inhibition is used to elevated the antifungal nature of the plant extracts and due to this we estimated that the minimum required amount of plant extract to kill or arrest the growth of the fungi present in media. The extracts of the medicinal plant *osmium sanctum* leaves showed effective antifungal activity to tested fungal organisms. In the present study results showed that the methanolic extraction of the plant extract shows the maximum inhibition ranges from

15.00±0.5mm to followed by ethyl acetate 11.5 ±0.5 in Aspergillus flavus and Methanolic ranges from Aspergillus Niger and Aspergillus fumigates will be 13. 04± 0.3 and 14.23±0.5.

The ethyl acetate, Methanol, Hexane and DMSO showed a different range of MIC, they are listed in the table 1.

Table. 1

Extract	Con (mg/ml)	A. flavus	A. fumigates	A. niger
Methanol	100	15.00±0.5mm	13.04±0.3	14.23±0.5
Ethyl acetate	100	11.05±0.5	9.00±0.25	7.50±0.26
Hexane	100	10.11±0.6	9.66±0.57	9.33±0.57
DMSO	100	-	-	-
Fluconazole	25mg /disc	16.78±1.76	14.12±1.34	15.11±1.06

All the extracts were effectively inhibited the growth of the fungal organisms. The Methanol extracts were shows highest inhibition in Aspergillus flavus and lowest range in Aspergillus fumigates. Ethyl acetate and hexane extractions ware shows highest in Aspergillus flavus and lowest in Aspergillus Niger. The antifungal drug Fluconazole is used a standard and DMSO is negative control.

Dissucion

In historical documents prove that many medicinal plants oils and extract like tea tree oil, clove, garlic and neem many more shows the antimicrobial properties (Hoffman, D.L. et al ,1987; Lawless, J. et al1995). It is important to investigate scientifically those plants which have been used in traditional medicines as

potential sources of novel antimicrobial compounds (Mitscher, L.A. et al ,1987). The various researchers prove that the antimicrobial activity of essential oils and plant extracts includes rosemary, peppermint, bay, basil, tea tree, neem and fennel (Sunita Bansod and Mahendra Rai, 2008).

Conclusions

From these results it was conclude that *Ocimum sanctum* (Tulsi)possesses sufficient antifungal properties, they show sufficient antifungal activity in tested phytopathogenic fungi. It can be stated that methanol is the best solvent among the tested solvents foe extracting antifungal compounds from *Ocimum santum*.

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DO MERGERS & ACQUISITIONS ARE A VIABLE TECHNIQUE TO ENHANCE OPERATING PERFORMANCE?

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ABSTRACT

Mergers and Acquisitions (M&A) are well-known phenomena among the business organizations across the globe. It has a glorious past in the history of national and international economies in the form of several waves because of various changes in industrial and economic policies. Governments at times have used M&A as a restructuring tool for bringing economic reforms by merging the ailing units with the performing ones to safeguard the interests of various stakeholders and create synergies in the form of cost reduction, better operating margins and several other advantages of becoming bigger in size.

This has created a thrust among researchers to study the impact of mergers on firms by considering various parameters - profitability, operating, efficiency, liquidity, solvency, leverage, cash flows, liquidity and so on. Globally, enormous work has been undertaken to gauge whether M&A enhance the performance of the acquirer by computing comparing the before and after merger ratios, especially with short-term horizons and most have taken the duration of three years for each phase.

This work attempts to determine the effect of M&A on long-run operating performance of the companies by taking a timeline of six years for pre and six years subsequent to the merger. The ratios were calculated according to DuPont Return on Assets (ROA) model for 46 companies comprising 14 sectors that have gone through the process of M&A in F.Y. 2004 – 2005, 2005 – 2006 and 2006 - 2007 and are operating to date taken as a sample for the research. The outcome evinced that the firms have different experiences in terms of all three ratios following the merger.

Keywords: Operating Performance, Long Run, Mergers and Acquisitions, DuPont Return on Assets

Introduction

Operational Efficiency can be defined as “the output achieved with the given amount of resources allocated by any unit.” Operational efficiency offers lot of advantages in terms of reduction in cost, better profit margins, quality products and services, product differentiation, bigger customer base, better and effective utilization of resources so on and so forth. In order to attain operational efficiency a firm deploys numerous strategies that are available at their disposal. Mergers and Acquisitions (M&A) is one such strategy that have enacted by the players from varied sectors across the globe in order to enhance the operating performance.

M&A as a mechanism has a glorious past in the history of national and international economies in the form of several waves because of various changes in industrial and economic policies. Governments at times have used M&A as a restructuring tool for bringing economic reforms by merging the ailing units with the performing ones to safeguard the

interests of various stakeholders, create synergies and several other advantages of becoming bigger in size.

This has attracted the attention of the researchers and has led to enormous work that has been undertaken to gauge whether M&A enhance the performance of the acquirer by computing comparing the before and after merger ratios, especially with short-term horizons and most have taken the duration of three years for each phase.

The current research work attempts to determine the effect of M&A on long-run operating performance of the companies that have gone through the process of M&A in F.Y. 2004 – 2005, 2005 – 2006 and 2006 - 2007 and are operating to date with the help of DuPont Return on Assets (ROA) model.

Review of Literature

Aggarwal and Garg (2019) studied the effect of merger by using accounting based performance on a sample of 68 firms segregating them into service and manufacturing sectors that have merged during 2007-2008 to 2011-2012 and

took five years and three years' time frame for before and after merger. They computed and compared liquidity, profitability and solvency ratios and applied paired sample t-test for inferential conclusion. It was observed that out of three, profitability and liquidity of the firms significantly improved after the merger and service sector companies have performed better in comparison to manufacturing sector units in the medium term.

Sil (2015) examined the post-merger performance of 17 Indian pharmaceutical companies from 2000 - 2007 by using the CRISIL financial parameters for three years before and three years after the merger and exact binomial tests, nonparametric Mann-Whitney tests and Wilcoxon signed rank tests statistical techniques were used to check the significant impact. The researcher found that all the selected firms had not experienced any noteworthy improvement in the ratios after the merger and concluded that companies failed to generate financial synergy from the acquisitions.

Verma and Sharma (2014) conducted the study to see the effect of M&A on the financial and operating performance of the Indian telecom sector by taking a sample of 59 companies that have been merged between 2001-2002 to 2007 -2008. The researchers took three years period for pre and post-merger respectively to compute the ratios and applied Augmented Dickey Fuller Test and OLS Regression to check the results statistically and the outcome exhibited that M&A decreases the financial and operating performance significantly of the Indian telecom sector companies.

Kalra (2013) chose the sample of 47 Indian companies that have gone through the M&A process in F.Y. 2008 -2009 and used liquidity, profitability, operating performance and leverage ratios to see the effect of merger on these firms for three years before and subsequent to merger. The researchers applied paired sample t-test to check the significant difference and results evinced that few firms experienced notable improvement in liquidity, profitability, operating performance and financial leverage.

Leepsa and Mishra (2013) conducted a study to see the duration of effects of M&A on

the companies from Indian manufacturing sector for the period from 2003-2004 to 2006-2007 by taking financial data for three years before and three years after the merger and computed and compared the liquidity, profitability and solvency ratios. The researchers applied a paired sample t-test to gauge the results significantly and found out that M&A has a significant impact in the event year and after a year of merger.

Leepsa and Mishra (2012) carried a study on 33 Indian manufacturing firms from 2000 - 2001 - 2009 - 2010 and studied the liquidity, profitability and solvency ratios for three years before and three years after the merger. The paired sample t test and wilcoxon signed ranks test were applied to data and the outcome revealed that there was a mixed effect on the performance of the companies after the acquisition and the firms who have acquired bigger targets compared to their size have negative performance.

Kumar (2009) studied the after merger operating performance of the 30 sample companies from the period 1999 -2002 by determining the profitability, assets turnover and solvency ratios and using paired sample t test as a statistical tool. The researcher found that post-merger companies have not shown any significant improvement in the ratios and concluded that merger does not lead to any enhancement in the acquiring firms financial performance.

Saboo and Gopi (2009) studied the effect of M&A on the financial performance of 54 Indian corporates that have done either domestic or cross border mergers from 2000 - 2007. The researchers computed the ratios for two years before and two after the merger and compared them significantly by deploying paired t- test and observed that impact differ on domestic and cross border mergers and specifically, domestic acquiring firms experienced a positive impact on financial performance whereas cross border acquirers observed little negative impact on financial performance following merger.

Mantravadi and Reddy (2008) examined the effect of mergers on the operating performance of selected Indian firms from six industries namely - Sugar & Agri- Products, Organic & Inorganic chemicals, Textiles,

Banking & Finance, Pharmaceuticals & Healthcare and Electrical Equipment. The researchers computed and compared the operating ratios for six years - three years prior to merger and three years subsequent to merger, applied t test to see the significant change statistically and discovered that mergers have different impacts on each sector. The firms from the banking and finance sector had a small positive impact on profitability whereas the companies from the pharmaceuticals, textiles and electrical equipment sectors experienced slightly negative impact on operating performance contrast to that the Chemicals and Agri-products sector has seen significant decline in operating performance after the merger.

Singh and Mogla (2008) undertook the study on 56 companies that were merged between 1994-2002 to see the impact on financial performance in the post-merger scenario. The researchers computed profitability, liquidity and leverage ratios and applied paired sample t test as a statistical tool and noticed a dip in profitability following the merger and benefited on interest coverage ratio and increased size aspects, also group firms performed better than the non-group firms.

Objective of the Study

Having discussed the backdrop of work done by the antecedent researchers in the M&A sphere, this study attempts to determine the effect of M&A on long-run operating performance of the companies by using ratios as per DuPont Return on Assets (ROA) model and hypothesis are constructed accordingly:-

H_0 = There is no significant effect on Return on Assets (ROA) prior to and subsequent to the merger.

H_1 = There is significant effect on Return on Assets (ROA) prior to and subsequent to the merger.

H_0 = There is no significant effect on Net Profit Margin (NPM) prior to and subsequent to the merger.

H_1 = There is significant effect on Net Profit Margin (NPM) prior to and subsequent to the merger.

H_0 = There is no significant effect on Asset Turnover Ratio (ATR) prior to and subsequent to the merger.

H_1 = There is significant effect on Asset Turnover Ratio (ATR) prior to and subsequent to the merger.

Collection of Data and Methodology Application

The data used in the research work is secondary in nature. Information pertaining to 453 M&A transactions for F.Y. 2004- 2005, 2005- 2006 and 2006 -2007, sectors segregation and financial data with respect to sales, net profit and total assets were captured comprehensively and thoroughly from Prowess IQ – A database of Centre for Monitoring Indian Economy (CMIE), annual reports and stock exchange websites were also referred as well. M&A pacts between group companies were wiped out to have precision in results. Data filtered further by ostracizing the firms of financial service and banking sectors, acquirers who have done more than a single M&A deal in three years and those companies whose lacks in financial data availability. As a resultant, a sample of 46 companies comprehending 50 M&A deals and 14 sectors were culminated for the purpose of research (*Table II*).

Owing to the data obtainability in the Prowess IQ database, the time duration plumped for were six years – prior the merger and six years post-merger for comparing and contrasting the financial recital of the acquiring firms following the merger. Wherefore, for M&A deals of F.Y. 2004-2005; the specifics were cumulated from F.Y. 1998 - 1999 to F.Y. 2003 – 2004 and F.Y. 2005-2006 to F.Y. 2010 – 2011; of F.Y. 2005 – 2006; from F.Y. 1999 - 2000 to F.Y. 2004 – 2005 and F.Y. 2006 - 2007 to F.Y. 2011 – 2012; of F.Y. 2006 – 2007, from F.Y.2000 - 2001 to F.Y. 2005 – 2006 and F.Y. 2007 - 2008 to F.Y. 2012 – 2013 for the pre-merger and for after the merger respectively.

Thereupon the ratios were reckon for before and after the merger spell and to reach at statistical interference of mergers impact assessed by the non-parametric test - Wilcoxon signed rank at 5% level of significance.

Table I – An Encapsulation of M&A Deals

S. No	Sectors	M&A Deals in F.Y. 2004-2005	M&A Deals in F.Y. 2005-2006	M&A Deals in F.Y. 2006-2007
1	Chemical and Chemical Products	4	2	5
2	Information Technology	1	1	1
3	Consumer Goods	1	4	-
4	Miscellaneous Seviles	1	-	1
5	Textiles	1	-	1
6	Construction Materials	-	2	4
7	Metals and Metals Products	1	1	1
8	Industrial and Infrastructural Construction	-	1	-
9	Machinery	-	6	-
10	Transport Equipment	1	-	-
11	Hotels and Tourism	-	2	4
12	Food and Agro Based Products	-	2	-
13	Minerals	-	-	1
14	Real Estate	-	-	1
Year wise M&A Deals		10	21	19

Du Pont Return on Assets (ROA) Equation

The Du Pont return on assets framework also popularly known as three-factor model as it is made up of three ratios namely – Return on Assets (ROA), Net Profit Margin (NPM) and Asset Turnover Ratio (ATR). The ROA and NPM are the ratios used to assess the

profitability and ATR helps to gauge the efficiency of the firms.

It also explains the interdependency of the ratios and the way one affects the other. Donaldson Brown invented this concept in 1912 while working on finding out the way for financial frenzy of General Motors that was bought by Du Pont at that point of time.

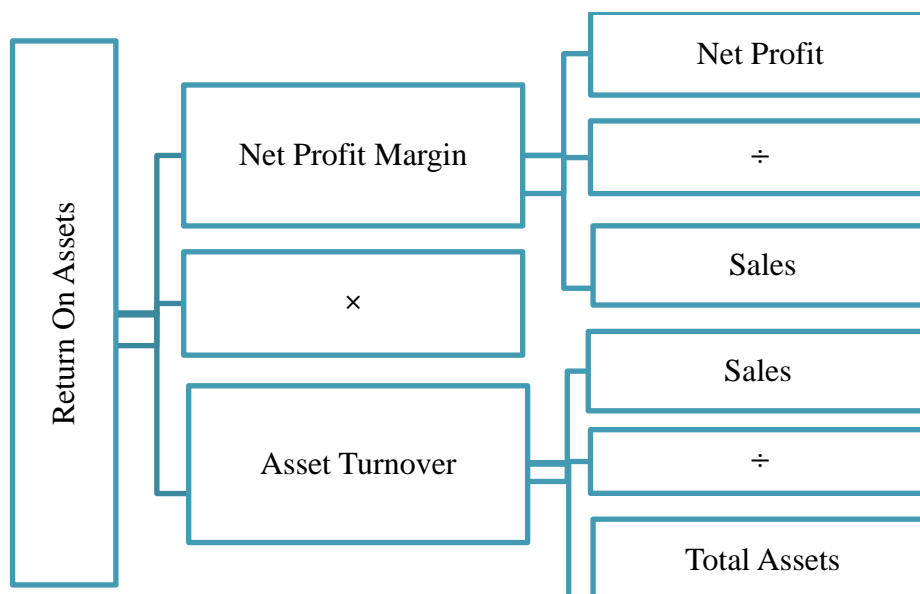


Figure I: Du Pont ROA Framework

Outcome and Analysis

In the outcome, it was observed that subsequent to merger, 15 companies had no noteworthy effect on either of the ratios. From the left over 31 firms, 11 companies had significant impact on Return on Assets (ROA) ratios (*Table IIIA – III D*) subsequent to merger wherein 7 companies ROA has enhanced and ROA of 4 companies has fallen after the merger. On investing the Net Profit Margin Ratio (NPM), (*Table IVA – IV D*) the observation was that 16 companies had notable effect of merger in which for 9 firms the ratio has become better and for 7 firms it had gone down following the merger. With reference to Asset Turnover Ratio (ATR) (*Table VA – V D*) 11 firms has experienced improvement in the ratio and 10 firms have seen fall in the ratio, in total 21 firms that has remarkably affected by the merger.

EIH Associated Hotels Ltd, HIL Ltd and Crisil Ltd are the firms that have experienced significant improvement in all three ratio on the contrary all three ratios of Bharat Petroleum Corpn. Ltd, Forbes & Co. Ltd and Pioneer Embroideries Ltd. dropped remarkably subsequent to the merger. Lakshmi Machine Works Ltd. has shown improvement and Thomas Cook (India) Ltd has registered dip on the count of return on assets and net profit margin ratios after the merger. After merger, Pfizer Ltd., NMDC Ltd and Peninsula Land Ltd has registered notable growth in net profit margin and downfall in asset turnover ratios and Chettinad Cement Corpn. Ltd. has seen significant improvement in return on assets and asset turnover ratio.

The return on assets of Mphasis Ltd and ACC Ltd, net profit margin of Dabur India Ltd and Larsen & Toubro Ltd. and asset turnover ratios of Nesco Ltd., Akar Tools Ltd., JSW Steel Ltd., Thermax Ltd., Universal Cables Ltd., VIP Industries Ltd. and India Cements Ltd. has become better after the merger. H C L Technologies Ltd., Kisan Mouldings Ltd. and Mirza International Ltd. and Marksans Pharma Ltd., HMT Ltd. and Megasoft Ltd has recorded downturn in net profit margin and asset turnover ratios respectively.

Precis and Concluding Remarks

To conclude, the present research work was shoulder upon to determine the effect of M&A on long-run operating performance of the companies and the results disclosed mixed impact of mergers on the acquirers. Post-merger, the asset turnover ratio stood first, net profit margin ratio second and return of assets at third position with respect to the improvement. This stipulates that mergers are beneficial to the firms as it enhances their operational efficiency and it entirely depends on a firm the manner in which it lays out a proper strategic plan to integrate the target firms in after merger scenario.

Scope for Future Study

The researcher in future can go for extended studies by the adding more samples and extending the timeline. Sector specific and cross border work can be conducted to see whether results obtained are alike or distinguish in nature. Apart from Du Pont Analysis, other ratios like liquidity, solvency, profitability, capital gearing free cash flow, leverage can also be used as performance indicators.

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Table – II Details of M&A Deals along with the sectors

S. No	Name of Acquirer	Main Sector of Acquirer	No. of Mergers	Name of Company(ies) Targeted & Merged	Main Sector of Target	Year of M&A Deal
1	Bharat Petroleum Corpn. Ltd.	Chemical and Chemical Products	1	Kochi Refineries Ltd.	Chemical and Chemical Products	2004-2005
2	Kisan Mouldings Ltd.		1	Gaurav Agro Plast Ltd.	Chemical and Chemical Products	
3	Marksans Pharma Ltd.		1	Glenmark Laboratories Ltd.	Chemical and Chemical Products	
4	Pfizer Ltd.		1	Pharmacia Healthcare Ltd.	Chemical and Chemical Products	2005-2006
5	V I P Industries Ltd.		1	Aristocrat Luggage Ltd.	Chemical and Chemical Products	
6	Goa Carbon Ltd.		1	Paradeep Carbons Ltd.	Chemical and Chemical Products	
7	Coromandel International Ltd.		2	Ficom Organics Ltd.	Chemical and Chemical Products	2006-2007
				Rasilah Investments Ltd.	Other Fund Based Financial Services	
8	Jain Irrigation Systems Ltd.		1	Orient Vegetexpo Ltd.	Food & Agro Based Products	
9	Khaitan Chemicals & Fertilizers Ltd.		1	Mahadeo Fertilizers Ltd.	Chemical and Chemical Products	
10	Reliance Industries Ltd.		1	Indian Petrochemicals Corpn. Ltd.	Chemical and Chemical Products	
11	H C L Technologies Ltd.	Information Technology	1	Shipara Technologies Ltd.	Information Technology	2004-2005
12	Mphasis Ltd.		1	Kshema Technologies Ltd.	Information Technology	2005-2006
13	Megasoft Ltd.		1	Visualsoft Technologies Ltd.	Information Technology	2006-2007
14	Mirza International Ltd.	Consumer Goods	1	Leather Trends Pvt. Ltd.	Consumer Goods	2004-2005
15	Dabur India Ltd.		3	Balsara Home Products Ltd.	Consumer Goods	2005-2006
				Balsara Hygiene Products Ltd.	Consumer Goods	
				Besta Cosmetics Ltd.	Misc. Services	
16	Videocon Industries Ltd.		1	E K L Appliances Ltd.	Consumer Goods	
17	Nesco Ltd.	Miscellaneous Seviles	1	Indabrador Ltd.	Diversified	2004-2005
18	Crisil Ltd.		1	Irevna Research Services Ltd.	Miscellaneous Services	2006-2007
19	Welspun India Ltd.	Textiles	1	Glofame Cotspin Inds. Ltd.	Textiles	2004-2005
20	Pioneer Embroideries Ltd.		1	Crystal Lace (India) Ltd.	Textiles	2006-2007
21	H I L Ltd.		1	Malabar Building Products Ltd.	Construction Materials	2005-2006
22	Century Plyboards (India) Ltd.	1	Shyam Century Ferrous Ltd.	Metals and Metals Products		
23	A C C Ltd.	1	Tarmac (India) Pvt. Ltd.	Construction Materials		
24	Chettinad Cement Corpn. Ltd.	Construction Materials	2	High-Tech Lime Products Ltd.	Construction Materials	2006-2007
				Sabari Cements (Chennai) Ltd.	Construction Materials	
25	India Cements Ltd.		1	Visaka Cement Industry Ltd.	Construction Materials	
26	Welspun Corp. Ltd.	Metals and Metals Products	1	Eupec Welspun Pipe Coating India Ltd.	Metals and Metals Products	2004-2005

27	J S W Steel Ltd.		1	Euro Coke & Energy Pvt. Ltd.	Mining	2005-2006
28	Steel Authority Of India Ltd.		1	Bharat Refractories Ltd.	Construction Materials	2006-2007
29	Larsen & Toubro Ltd.	Industrial and Infrastructural Construction	1	Datar Switchgear Ltd.	Machinery	2005-2006
30	Akar Tools Ltd.	Machinery	1	Ajanta Auto Inds. Pvt. Ltd.	Transport Equipment	2005-2006
31	Forbes & Co. Ltd.		1	F A L Industries Ltd.	Consumer Goods	
32	Lakshmi Machine Works Ltd.		1	Jeetstex Engineering Ltd.	Machinery	
33	Universal Cables Ltd.		1	Optic Fibre Goa Ltd.	Miscellaneous Manufacturing	
34	H M T Ltd.		1	Praga Tools Ltd.	Machinery	
35	Thermax Ltd.		1	Thermax Babcock & Wilcox Ltd.	Machinery	
36	Kesoram Industries Ltd.	Transport Equipment	1	Assam Cotton Mills Ltd.	Textiles	2005-2006
37	Kamat Hotels (India) Ltd.	Hotels and Tourism	1	Himco (India) Ltd.	Hotels and Tourism	2005-2006
38	E I H Associated Hotels Ltd.		1	Indus Hotel Corpn. Ltd.	Hotels and Tourism	
39	Hotel Leela venture Ltd.		1	Kovalam Hotels Ltd.	Hotels and Tourism	
40	Indian Hotels Co. Ltd.		1	Taj Lands End Ltd.	Hotels and Tourism	
41	Taj G V K Hotels & Resorts Ltd.		1	Sri Tripurasundari Hotels Ltd.	Hotels and Tourism	
42	Thomas Cook (India) Ltd.		1	L K P Forex Ltd.	Other Financial Services	2006-2007
43	Dhampur Sugar Mills Ltd.	Food and Agro Based Products	1	Mansurpur Sugar Mills Ltd.	Food and Agro Based Products	
44	Tata Global Beverages Ltd.	Products	1	Tata Tetley Ltd.	Food and Agro Based Products	2005-2006
45	N M D C Ltd.	Minerals	1	Sponge Iron India Ltd.	Metals and Metal Products	2006-2007
46	Peninsula Land Ltd.	Real Estate	1	Dawn Mills Co. Ltd.	Textiles	2006-2007
			50			

Table – III (A) Wilcoxon Signed Ranks Test Results for Return on Asset Ratio

Wilcoxon Signed Rank Test	BPCLPOST ROA - BPCLPRER OA	HCLPOST ROA - HCLPRER OA	KISANPOS TROA - KISANPRE ROA	MARKSA NSPOSTR OA - MARKSA NSPRERO A	MIRZAPOS TROA - MIRZAPRE ROA	NESCOP OSTROA - NESCOP REROA	PFIZERPOS TROA - PFIZERPRE ROA	WELSPUNCP POSTROA - WELSPUNCP REROA	WELSPUNIPP OSTROA - WELSPUNIPR EROA	AKARPOS TROA - AKARPRE ROA	CENTPOS TROA - CENTPRE ROA
Negative Ranks	6	4	3	4	5	1	3	1	2	4	1
Positive Ranks	0	2	3	2	1	5	3	5	4	2	5
Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	3.50	3.75	3.33	3.25	3.80	2.00	4.00	6.00	3.00	3.50	3.00
	0.00	3.00	3.67	4.00	2.00	3.80	3.00	3.00	3.75	3.50	3.60
Sum of Ranks	21.00	15.00	10.00	13.00	19.00	2.00	12.00	6.00	6.00	14.00	3.00
	0.00	6.00	11.00	8.00	2.00	19.00	9.00	15.00	15.00	7.00	18.00
Z	-2.201(*)	-0.943(*)	-0.105(#)	-0.524(*)	-1.782(*)	-1.782(#)	-0.314(*)	-0.943(#)	-0.943(#)	-0.734(*)	-1.572(#)
Asymp. Sig. (2-tailed)	0.028	0.345	0.917	0.600	0.075	0.075	0.753	0.345	0.345	0.463	0.116

*: Based on Positive Ranks

#: Based on Negative Ranks

Table – III (B) Wilcoxon Signed Ranks Test Results for Return on Asset Ratio

Wilcoxon Signed Rank Test	DABPOST ROA - DABPRER OA	DHAMPOS TROA - DHAMPRE ROA	EIHPOSTR OA - EIHPRERO A	FORBESPOSTROA - FORBESPR EROA	GOAPOST ROA - GOAPRER OA	HILPOST ROA - HILPRER OA	HMTPOST ROA - HMTPRER OA	JSWPOSTR OA - JSWPRERO A	KAMATPOST ROA - KAMATPRER OA	KESORAMP OSTROA - KESORAMP REROA	LAKSHMIPO STRO - LAKSHMIPR EROA
Negative Ranks	1	3	0	6	2	0	5	2	2	2	0
Positive Ranks	5	3	6	0	4	6	1	4	4	4	6
Ties	0	0	0	0	0	0	0	0	0	0	0

Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	2.00	2.67	0.00	3.50	5.00	0.00	3.00	2.00	3.00	3.00	0.00
	3.80	4.33	3.50	0.00	2.75	3.50	6.00	4.25	3.75	3.50	3.50
Sum of Ranks	2.00	8.00	0.00	21.00	10.00	0.00	15.00	4.00	6.00	7.00	0.00
	19.00	13.00	21.00	0.00	11.00	21.00	6.00	17.00	15.00	14.00	21.00
Z	-1.782(#)	-0.524(#)	-2.201(#)	-2.207(*)	-0.105(#)	-2.201(#)	-0.943(*)	-1.363(#)	-0.943(#)	-0.734(#)	-2.201(#)
Asymp. Sig. (2-tailed)	0.075	0.600	0.028	0.027	0.917	0.028	0.345	0.173	0.345	0.463	0.028

Table – III (C) Wilcoxon Signed Ranks Test Results for Return on Asset Ratio

Wilcoxon Signed Rank Test	LTPOSTROA - LTPREROA	MPHISIS POSTROA - MPHISIS PREROA	TATAPOSTROA - TATAPREROA	THERMAX POSTROA - THERMAX PREROA	UNIVERSALPOSTROA - UNIVERSALPREROA	VIPPOSTROA - VIPREROA	VIDEOPOSTROA - VIDEOPREROA	ACCPOSTROA - ACCPREROA	CHETTIPOSTROA - CHETTIPREROA	COROPOSTROA - COROPREROA	CRISILPOSTROA - CRISILPREROA
Negative Ranks	1	0	3	1	1	1	2	1	1	1	0
Positive Ranks	5	6	3	5	5	5	4	5	5	5	6
Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	2.00	0.00	3.00	2.00	2.00	2.00	3.00	1.00	1.00	3.00	0.00
	3.80	3.50	4.00	3.80	3.80	3.80	3.75	4.00	4.00	3.60	3.50
Sum of Ranks	2.00	0.00	9.00	2.00	2.00	2.00	6.00	1.00	1.00	3.00	0.00
	19.00	21.00	12.00	19.00	19.00	19.00	12.00	20.00	20.00	18.00	21.00
Z	-1.782(#)	-2.201(#)	-0.314(#)	-1.782(#)	-1.782(#)	-1.782(#)	-0.943(#)	-1.992(#)	-1.992(#)	-1.572(#)	-2.201(#)
Asymp. Sig. (2-tailed)	0.075	0.028	0.753	0.075	0.075	0.075	0.345	0.046	0.046	0.116	0.028

Table – III (D) Wilcoxon Signed Ranks Test Results for Return on Asset Ratio

Wilcoxon Signed Rank Test	LEELAPOSTROA - LEELAPREROA	ICPOSTROA - ICPRE ROA	IHPOSTROA - IHPRE ROA	JAINPOSTROA - JAINPRE ROA	KHAITANPOSTROA - KHAITANPREROA	MEGAPOSTROA - MEGAPREROA	NMDCPOSTROA - NMDCPREROA	PENIPOSTROA - PENIPREROA	PIONPOSTROA - PIONPREROA	RELPOSTROA - RELPRE ROA	SAILPOSTROA - SAILPREROA	TAJPOSTROA - TAJPRE ROA	THOMASPOSTROA - THOMASPREROA
Negative Ranks	3	0	3	1	1	3	2	1	6	2	3	2	6
Positive Ranks	3	6	3	5	5	3	4	5	0	3	3	4	0
Ties	0	0	0	0	0	0	0	0	0	1	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	3.67	0.00	4.33	4.00	4.00	3.67	3.50	3.00	3.50	3.50	2.67	5.00	3.50
	3.33	3.50	2.67	3.40	3.40	3.33	3.50	3.60	0.00	2.67	4.33	2.75	0.00
Sum of Ranks	11.00	0.00	13.00	4.00	4.00	11.00	7.00	3.00	21.00	7.00	8.00	10.00	21.00
	10.00	21.00	8.00	17.00	17.00	10.00	14.00	18.00	0.00	8.00	13.00	11.00	0.00
Z	-0.105(*)	2.201(#)	0.524(*)	-1.363(#)	-1.363(#)	-0.105(*)	-0.734(#)	-1.572(#)	-2.201(*)	-0.135(#)	-0.524(#)	-0.105(#)	-2.201(*)
Asymp. Sig. (2-tailed)	0.917	0.917	0.600	0.173	0.173	0.917	0.463	0.116	0.028	0.893	0.600	0.917	0.028

Table – IV (A) Wilcoxon Signed Ranks Test Results for Net Profit Margin Ratio

Wilcoxon Signed Rank Test	BPCLPOSTNPM - BPCLPRENPM	HCLPOSTNPM - HCLPRENPM	KISANPOSTNPM - KISANPRENPM	MARKSANPOSTNPM - MARKSANSPRENPM	MIRZAPOSTNPM - MIRZAPRENPM	NESCOPOSTNPM - NESCOPRENPM	PFIZERPOSTNPM - PFIZERPRENPM	WELSPUNCPPOSTNPM - WELSPUNCPRENPM	WELSPUNIPPOSTNPM - WELSPUNIPRENPM	AKARPOSTNPM - AKARPRENPM	CENTPOSTNPM - CENTPRENPM
Negative Ranks	6	6	6	3	5	1	0	2	3	4	1
Positive Ranks	0	0	0	3	1	5	6	4	3	2	5
Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	3.50	3.50	3.50	3.00	4.00	2.00	0.00	1.50	2.00	4.00	3.00
	0.00	0.00	0.00	4.00	1.00	3.80	3.50	4.50	5.00	2.50	3.60
Sum of Ranks	21.00	21.00	21.00	9.00	20.00	2.00	0.00	3.00	6.00	16.00	3.00
	0.00	0.00	0.00	12.00	1.00	19.00	21.00	18.00	15.00	5.00	18.00
Z	-2.201(*)	-2.201(*)	-2.201(*)	-0.314(#)	-1.992(*)	-1.782(#)	-2.201(#)	-1.572(#)	-0.943(#)	-1.153(*)	-1.572(#)
Asymp. Sig. (2-tailed)	0.028	0.028	0.028	0.753	0.046	0.075	0.028	0.116	0.345	0.249	0.116

Table – IV (B) Wilcoxon Signed Ranks Test Results for Net Profit Margin Ratio

Wilcoxon Signed Rank Test	DABPOSTNPM - DABPRENPM	DHAMPOSTNPM - DHAMPRENPM	EIHPOSTNPM - EIHPRENPM	FORBESPOSTNPM - FORBESPRENPM	GOAPOSTNPM - GOAPRENPM	HILPOSTNPM - HILPRENPM	HMTPOSTNPM - HMTPRENPM	JSWPOSTNPM - JSWPRENPM	KAMATPOSTNPM - KAMATPRENPM	KESORAMPOSTNPM - KESORAMPRENPM	LAKSHMIPOSTNPM - LAKSHMIPRENPM
Negative Ranks	0	3	0	6	3	0	5	2	2	2	0
Positive Ranks	6	3	6	0	3	6	1	4	4	4	6
Ties	0	0	0	0	0	0	0	0	0	0	0

Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	0.00	2.33	0.00	3.50	4.33	0.00	3.00	1.50	3.00	4.00	0.00
	3.50	4.67	3.50	0.00	2.67	3.50	6.00	4.50	3.75	3.25	3.50
Sum of Ranks	0.00	7.00	0.00	21.00	13.00	0.00	15.00	3.00	6.00	8.00	0.00
	21.00	14.00	21.00	0.00	8.00	21.00	6.00	18.00	15.00	13.00	21.00
Z	-2.201(#)	-0.734(#)	-2.201(#)	-2.201(*)	-0.524(*)	-2.201(#)	-0.943(*)	-1.572(#)	-0.943(#)	-0.524(#)	-2.201(#)
Asymp. Sig. (2-tailed)	0.028	0.463	0.028	0.028	0.600	0.028	0.345	0.116	0.345	0.600	0.028

Table – IV (C) Wilcoxon Signed Ranks Test Results for Net Profit Margin Ratio

Wilcoxon Signed Rank Test	LTPOST NPM - LTPREN PM	MPHASI SPOSTN PM - MPHASI SPRENPM	TATAPO STNPM - TATAPRENPM	THERMA XPOSTNPM - THERMA XPRENPM	UNIVERSALPOSTNPM - UNIVERSALPRENPM	VIPPOST NPM - VIPPRENPM	VIDEOPOSTNPM - VIDEOPRENPM	ACCPPOSTNPM - ACCPPRENPM	CHETTIPOSTNPM - CHETTIPRENPM	COROP OSTNPM - COROPRENPM	CRISILP OSTNPM - CRISILPRENPM
Negative Ranks	0	3	1	2	1	1	1	1	1	2	0
Positive Ranks	6	3	5	4	5	5	5	5	5	4	6
Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	0.00	4.00	2.00	3.50	2.00	2.00	4.00	2.00	2.00	3.50	0.00
	3.50	3.00	3.80	3.50	3.80	3.80	3.40	3.80	3.80	3.50	3.50
Sum of Ranks	0.00	12.00	2.00	7.00	2.00	2.00	4.00	2.00	2.00	7.00	0.00
	21.00	9.00	19.00	14.00	19.00	19.00	17.00	19.00	19.00	14.00	21.00
Z	-2.201(#)	-0.314(*)	-1.782(#)	-0.734(#)	-1.782(#)	-1.782(#)	-1.363(#)	-1.782(#)	-1.782(#)	-0.734(#)	-2.201(#)
Asymp. Sig. (2-tailed)	0.028	0.753	0.075	0.463	0.075	0.075	0.173	0.075	0.075	0.463	0.028

Table – IV (D) Wilcoxon Signed Ranks Test Results for Net Profit Margin Ratio

Wilcoxon Signed Rank Test	LEELAP OSTNPM - M - LEELAP RENPM	ICPOSTNPM - ICPRENPM	IHPOSTNPM - IHPRENPM	JAINPOSTNPM - JAINPRENPM	KHAITANPOSTNPM - KHAITANPRENPM	MEGAPOSTNPM - MEGAPRENPM	NMDCPOSTNPM - NMDCPRENPM	PENIPOSTNPM - PENIPRENPM	PIONPOSTNPM - PIONPRENPM	RELPOSTNPM - RELPRENPM	SAILPOSTNPM - SAILPRENPM	TAJPOSTNPM - TAJPRENPM	THOMASPOSTNPM - THOMASPRENPM
Negative Ranks	3	0	3	1	1	2	0	1	6	4	2	2	6
Positive Ranks	3	6	3	5	5	4	6	5	0	2	4	4	0
Ties	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	3.33	0.00	4.33	4.00	3.00	3.50	0.00	1.00	3.50	3.50	2.50	4.50	3.50
	3.67	3.50	2.67	3.40	3.60	3.50	3.50	4.00	0.00	3.50	4.00	3.00	0.00
Sum of Ranks	10.00	0.00	13.00	4.00	3.00	7.00	0.00	1.00	21.00	14.00	5.00	9.00	21.00
	11.00	21.00	8.00	17.00	18.00	14.00	21.00	20.00	0.00	7.00	16.00	12.00	0.00
Z	-0.105	-2.201	-0.524	-1.363	-1.572	-0.734	-2.201	-1.992	-2.201	-0.734	-1.153	-0.314	-2.201
Asymp. Sig. (2-tailed)	0.917	0.917	0.600	0.173	0.116	0.463	0.028	0.046	0.028	0.463	0.249	0.753	0.028

Table – V (A) Wilcoxon Signed Ranks Test Results for Assets Turnover Ratio

Wilcoxon Signed Rank Test	BPCLPOSTATR - BPCLPREATR	HCLPOSTATR - HCLPREATR	KISANPOSTATR - KISANPREATR	MARKSANPOSTATR - MARKSANSPREATR	MIRZAPOSTATR - MIRZAPREATR	NESCOPOSTATR - NESCOPREATR	PFIZERPOSTATR - PFIZERPREATR	WELSPUNCPPOSTATR - WELSPUNCPREATR	WELSPUNIPPOSTATR - WELSPUNIPREATR	AKARPOSTATR - AKARPREATR	CENTPOSTATR - CENTPREATR
Negative Ranks	6	1	1	6	2	0	0	1	4	0	3
Positive Ranks	0	5	5	0	4	6	6	5	2	6	3

Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	3.50	3.50	2.00	3.50	2.50	0.00	3.50	4.50	3.75	0.00	5.00
	0.00	3.50	3.80	0.00	4.00	3.50	0.00	3.50	3.00	3.50	2.00
Sum of Ranks	21.00	3.50	2.00	21.00	5.00	0.00	21.00	4.50	15.00	0.00	15.00
	0.00	17.50	19.00	0.00	16.00	21.00	0.00	16.50	6.00	21.00	6.00
Z	-2.201(*)	-1.472 (#)	-1.782(#)	-2.207(*)	-1.153(#)	-2.201 (#)	-2.201(*)	-1.261(#)	-0.943(*)	-2.207(#)	-0.943(*)
Asymp. Sig. (2-tailed)	0.028	0.141	0.075	0.027	0.249	0.028	0.028	0.207	0.345	0.027	0.345

Table –V (B) Wilcoxon Signed Ranks Test Results for Assets Turnover Ratio

Wilcoxon Signed Rank Test	DABPOS TATR-DABPRE ATR	DHAMPO STATR-DHAMPRE ATR	EIHPOST ATR - EIHPRE ATR	FORBESPOSTATR - FORBESPREATR	GOAPOSTATR - GOAPRE ATR	HILPOSTATR - HILPRE ATR	HMTPOSTATR - HMTPRE ATR	JSWPOSTATR - JSWPRE ATR	KAMATPOSTATR - KAMATPRE ATR	KESORAM POSTATR - KESORAM PREATR	LAKSHM IPOSTATR - LAKSHM IPREATR
Negative Ranks	3	4	0	6	1	1	6	1	5	4	3
Positive Ranks	3	2	6	0	5	5	0	5	1	2	3
Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	3.83	3.00	0.00	3.50	1.50	1.00	3.50	1.00	3.80	4.00	2.67
	3.17	4.50	3.50	0.00	3.90	4.00	0.00	4.00	2.00	2.50	4.33
Sum of Ranks	11.50	12.00	0.00	21.00	1.50	1.00	21.00	1.00	19.00	16.00	8.00
	9.50	9.00	21.00	0.00	19.50	20.00	0.00	20.00	2.00	5.00	13.00
Z	-0.21(*)	-0.314(*)	-2.226(#)	-2.207(*)	-1.892(#)	-1.992 (#)	-2.201(*)	-1.997(#)	-1.782(*)	-1.153(*)	-0.524(#)
Asymp. Sig. (2-tailed)	0.833	0.753	0.026	0.027	0.058	0.046	0.028	0.046	0.075	0.249	0.600

Table –V (C) Wilcoxon Signed Ranks Test Results for Assets Turnover Ratio

Wilcoxon Signed Rank Test	LTPOST ATR - LTPREATR	MPHASI SPOSTATR - MPHASI SPREATR	TATAPOSTATR - TATAPREATR	THERMAXPOSTATR - THERMAXPREATR	UNIVERSALPOSTATR - UNIVERSALPREATR	VIPPOSTATR - VIPPREATR	VIDEOPOSTATR - VIDEOPREATR	ACCPPOSTATR - ACCPPREATR	CHETTIPOSTATR - CHETTIPREATR	COROPOSTATR - COROPREATR	CRISILPOSTATR - CRISILPREATR
Negative Ranks	2	1	6	0	0	0	5	3	0	2	0
Positive Ranks	4	5	0	6	6	6	1	3	6	4	6
Ties	0	0	0	0	0	0	0	0	0	0	0
Total	6	6	6	6	6	6	6	6	6	6	6
Mean Rank	5.50	3.00	3.50	0.00	0.00	0.00	3.80	3.67	0.00	1.50	0.00
	2.50	3.60	0.00	3.50	3.50	3.50	2.00	3.33	3.50	4.50	3.50
Sum of Ranks	11.00	3.00	21.00	0.00	0.00	0.00	19.00	11.00	0.00	3.00	0.00
	10.00	18.00	0.00	21.00	21.00	21.00	2.00	10.00	21.00	18.00	21.00
Z	-0.105(*)	-1.572 (#)	-2.207(*)	-2.201(#)	-2.201(#)	-2.201(#)	-1.782(*)	-0.105(*)	-2.207(#)	-1.572 (#)	-2.207(#)
Asymp. Sig. (2-tailed)	0.917	0.116	0.027	0.028	0.028	0.028	0.075	0.917	0.027	0.116	0.027

Table –V (D) Wilcoxon Signed Ranks Test Results for Assets Turnover Ratio

Wilcoxon Signed Rank Test	LEELAPOSTATR - LEELAPREATR	ICPOSTATR - ICPREATR	IHPOSTATR - IHPREATR	JAINPOSTATR - JAINPREATR	KHAITANPOSTATR - KHAITANPREATR	MEGAPOSTATR - MEGAPREATR	NMDCPOSTATR - NMDCPREATR	PENIPOSTATR - PENIPREATR	PIONPOSTATR - PIONPREATR	RELPOSTATR - RELPREATR	SAILPOSTATR - SAILPREATR	TAJPOSTATR - TAJPREATR	THOMASPOSTATR - THOMASPREATR
Negative Ranks	4	0	4	2	4	6	6	6	6	1	4	5	5
Positive Ranks	2	6	1	4	2	0	0	0	0	5	2	1	1

Ties	0	0	1	0	0	0	0	3.5	0	0	0	0	0
Total	6	6	6	6	6	6	6	0	6	6	6	6	6
Mean Rank	4.00	0.00	3.13	2.25	3.25	3.50	3.50	1.00	3.50	5.00	3.63	3.20	3.90
	2.50	3.50	2.50	4.13	4.00	0.00	0.00	4.00	0.00	3.20	3.25	5.00	1.50
Sum of Ranks	16.00	0.00	12.50	4.50	13.00	21.00	21.00	1.00	21.00	5.00	14.50	16.00	19.50
	5.00	21.00	2.50	16.50	8.00	0.00	0.00	20.00	0.00	16.00	6.50	5.00	1.50
Z	-1.156(*)	-2.201(#)	-1.355(*)	-1.261(#)	-0.524(*)	-2.207(*)	-2.201(*)	-2.201(*)	-2.20(*)	-1.153(#)	-0.841(*)	-1.153(*)	-1.892(*)
Asymp. Sig. (2-tailed)	0.248	0.028	0.176	0.207	0.600	0.027	0.028	0.028	0.028	0.249	0.400	0.249	0.058

USAGE OF STRATEGIES IN ENGLISH AND TELUGU LANGUAGES AT HIGHER EDUCATION LEVEL

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ABSTRACT

The researcher aim to explore the usage of strategies in reading and writing skills of both English and Telugu languages. In this study, the participants taken from Govt degree college, Nalgonda. Those are four male and four female participants and those who have low proficiency in English language. The questionnaire related to second language learning strategies (cognitive and metacognitive strategies) had given to them and collected the data in both English and Telugu languages. And analysed the data in excel and conducted standard deviation and paired ttest for the data. In the findings, the researcher found out that the usage of strategies in reading and writing in Telugu language is much better than that of usage strategies in English language. The ttest conducted to cognitive and metacognitive strategies of reading skill of both English and Telugu language and writing skill of both English and Telugu languages. Introducing new methods of using strategies with more learner centered methods may give more interest to the learners and help the learners to usage of strategies in English language learning.

Keywords: Language skills, Second language learning, Second language learning strategies, Cognitive strategies and Metacognitive strategies.

Introduction

The skill of reading is a process that involves extracting information from text. It is not simply decoding words or symbols. It involves searching for meaning in the text. Factors that influence a person's reading experience. These include the reader's ability to mentally and physically participate in the process of reading. Second language reading is regarded as a means to improve students' academic performance. It contributes to their personal and intellectual development. Success in reading sets students up for success in life. It helps them become more informed citizens and contribute to society. Learning strategies and methods are used to evaluate and develop success in reading. As the complexity of reading texts increases, the strategies used to improve one's reading skills should also change according to the different types of texts and the reading purpose.

Language: Human beings are able to communicate and exchange knowledge, beliefs, and feelings by using language. At the same time, they can also express their feelings and anger by raising their eyebrows or smiling. In 2008, Bruce Goldstein stated that language is a system of communication that enables people to express their feelings and thoughts. It is a system of communication that consists of words and symbols that are used to

communicate. Non-linguistic communication is the use of non-words such as smiling, laughing, and shrieking. Language enables people to communicate what they are thinking or feeling. Without this medium, their social life would not have been possible.

Origin of language: According to Charles Darwin, the development of language was probably started around 100,000 to 50,000 years ago. It is believed that some type of spoken language was first used around 5,000 years ago. In most Hindu traditions, the language that people use comes from the wife of Brahma, who created the universe. King James the Fourth of Scotland experimented with this possibility by having children speak Hebrew. In an experiment, it was proven that children who grew up without access to human language development no longer have any language skills. This is because the human auditory system is already processing primitive sounds. Since humans are the only animals on Earth that possess language, it is believed that their communication system was necessary to maintain their position in the human lineage prior to the split between the chimpanzee and the hominids. Few researchers believe that languages have been around 2 million years old. In 2007, George Yule noted that there are around 6,900 languages spoken in the world. He went on to say that these languages can be divided into over 90 language families. Many

peoples believe that language is the source of power and life. For some people, a newborn child is just a creature, not a person. Only by learning a language can a child become a human being.

First Language: "All languages in the world have been used as a mother tongue or a second language. The purpose of speaking them is to express, to think, and to record" (Gurrey.P.1970). Language one is the mother tongue. It is the language that a child learns by himself or from his parents. It helps him develop his logical and verbal skills. Learning L1 is a natural process that takes place in a child's natural environment. The child uses the language at home and in the school. The mother tongue learning process is unconscious but gradually learned. The child learns to listen and speak at home. This is the reason why the teacher must build a foundation in the mother tongue. The human brain is also involved in the acquisition of L1 & L2. Even though the capacity of the brain is limited, one can still say and understand infinite numbers of sentences.

Second Language: Through various sources, such as teacher presentation, learning materials, and interaction with the learner, language input can be provided. The purpose of this is to enable the students to develop their language skills in various contexts. According to Stevick, B. (1990), if a person acquires a language, it will remain permanent. However, if they fail to retain the learned content, it may be forgotten. According to Spolsky.B (1989), receptive skills are usually stronger than productive skills. For people to improve their receptive skills, they should have a minimum of knowledge about the new language and its constituent parts. Learning a language can be more efficient if the students do not have to produce all the material they are exposed to. This allows them to focus on the meaning of the language without being limited by the time they have to memorize. Britton, J. (1970) identifies some important factors, which may be useful in identifying the process of second language learning. The second language learner must understand the language's lexical and syntactic processing in order to effectively communicate with others.

During the initial stages of learning a new language, the brain processes and makes sense of the incoming. This process helps the learners develop their own language forms. They then learn to use them confidently and without being afraid to make mistakes. Factors such as motivation, attitude, and enthusiasm are also important to consider when it comes to language learning. Learning is made easier if the environment is motivating and provides the necessary support to enable individuals to develop their personal language skills. In the early stages of learning a second language, the learner has to be very careful about listening. In this regard, it is very important that the learners are engaged in talks for a long time so that they can hear and understand. **For learning English as second language:** Second language learning has been defined by Ellis, R. (1994) as the "subconscious or conscious processes by which a language other than the mother tongue is learnt in a natural or tutored setting". For people with limited or no previous knowledge of English, the process of learning another language can be considered conscious and voluntary. This learning method involves acquiring four skills namely listening, speaking, reading, and writing. English should be taught in India as it is one of the most widely used languages in the world. Students of English should also learn to speak it to people from different cultures.

Barriers of second language learning: Second Language learning is a complex process that involves the skills of listening, speaking, reading, and writing. Learning is done through practice, which can be done in various locations. Firstly, success depends on analyzing the learners, their roles, their needs, learning style and their attitudes towards the second language learning. Second is Believing in the importance of language teaching and learning goes hand in hand with the right materials and teachers. The teacher's attitude toward teaching is also important to ensure that the students are successful. Thirdly, the function of English in the daily lives of the students is very important. Also, the identification of the difficulty level of the students is also crucial for their language learning.

Second language learning strategies: A good learning style is one that involves a variety of theories, methods, and strategies. This concept is often used in the context of language learning as it explains the process of learning. Language learning is as important as the factors that influence it. For people, it is not enough to just learn a language. They also have to learn how to use it in a form. The important areas of investigation, therefore, have to dwell on the processes that define: what and how learners learn and what individual and social factors influence learning (Chaudhary, S. 2002).

Communication skills: Language is the main vehicle of communication for humans. It is their expression of thoughts and feelings. Without it, the world would have been different. Language learning is a process that involves acquiring various skills in order to improve one's ability to communicate. Talking and Reading are both active skills that involve the use of language. They are also known as productive skills. Aside from the usual skills, such as speaking and listening, language skills also have interrelated components. These components can be acquired depending on the level of the child's cognitive development. The concept of exposure to language in meaningful situations is reinforced by the use of input rich theoretical methodologies. This method aims to introduce the child to the language through practice. The skills that are productive are those that can be learned and used effectively, such as listening and reading. These skills are those that can be learned and used without requiring the use of a language.

Reading: Reading skills are very important nowadays. They are required for academic success and professional purposes. A good reading technique is a must in order to excel in academic and professional tasks. Over the years, various researchers have been involved in studying the process of reading comprehension. Their theories have shed light on the various facets of this complex process, works as also K. Goodman (1996), whose theories have shed light on the complexity of the reading process and its conventions. Reading is a process that involves acquiring and developing meaning from text. It is done in order to connect with and predict new

meanings from the existing information. When the reader engages with the text in a way that they feel comfortable with, they develop strategies to improve their reading skills. While receiving and interpreting the written word, the reader is concerned with four factors, that is: 1. Decoding 2. Comprehending 3. Text analysis 4. Response Decoding Decoding or interpreting in reading means to change the coded message into information. As it involves understanding of the written language, it needs the ability to identify words accurately, understand the definitions of the words being used and the manner in which words are used in varying contexts. A written message can only be deciphered once the reader has learned the language where the words are used. The complexity of the message and the context in which it's written may affect the reader's interpretation.

Writing: Although the four language skills are important for the student, most of the students at the tertiary level are not very good at writing. This is mainly due to the lack of time and resources allocated for developing writing skills for the specific needs of the students. . Richard, J.C. (1985) in "The Context of Language Teaching" opined that "The language skills should be integrated while teaching a lesson in the class room. In order to improve their written communication skills, it has been suggested that they should develop their listening, reading, and speaking skills together. This course aims to teach them how to write effectively and efficiently at professional level. It will help them overcome the various problems they might face while writing. Writing helps us to think critically about what we experience and what others have to say about us. It is also used to stimulate thought and to create a sense of what is meaningful to us. It is very important that people develop the skills necessary to effectively use language.

Role of first language (L1) in learning a second Language (L2): The use of the L1 of the learner in L2 learning has been a controversial issue for a long time. From an interactionist perspective, for example, emphasis needs to be given to ensuring that learners receive maximum exposure to L2 input, whereas from a sociocultural perspective

the L1 can serve as a tool for scaffolding learner production in the L2 (Ellis 2008). Krashen (1981) suggests that the knowledge of the L1 is a source of errors in learners' L2 performance, for that there should be an English environment in English language classroom. In recent years, most research approves the use of the L1 as it facilitates the learning process of the L2 (Cummins 2007, García 2008 and Kang 2012). It has been decided that depending on the learners' L2 proficiency level, the extent of L1 use in the classroom should be determined without affecting the learners' opportunity for the exposure to the target language. The use of L1 as a linguistic resource in the classroom can encourage and enhance the students' positive attitude toward their L1, their belief in themselves and their capabilities to achieve higher learning in academic areas as well as second language and literacy. One of the main assumptions of this researcher's approach is that the first language of the learner is a very powerful factor in second language learning and one which cannot be eliminated from the process of learning. Depending on the knowledge of L1, more or less consciously, the learner tries to perceive and assimilate concepts of the target language. The L1 represents a powerful resource that can be used as an aid to enhance learning but it must always be used in a principled way. When learners use their L1 structures in L2 performance, they in effect plug lexical items of the L2 into the surface structure of the L1. In other words, they "think" in the L1 and use words from the L2, much as one would handle word-for-word translation (Dulay, Burt and Krashen 1982). Further, the use of L1 frees learners from psychological barriers like embarrassment or nervousness and offers them mental comfort. It also creates a kind of rapport between the teacher and the learners and the learners are motivated to interact with the teacher independently. The first language provides a new dimension to the class and makes it learner friendly and lively. As a teacher of English as a second language at the higher education level, the researcher believes that the first language of the learner should be treated as an ally in the process of second language teaching and that it should be

consciously used instead of being ignored and avoided at all costs.

Literature Review

Chen Chen (2020) explores native language is an important factor that affects second language acquisition. Its positive transfer has been neglected in the discussions about negative transfer of native language. This paper presents the similarities between Chinese and English and their effect on SLA. It also explores the various teaching methods that can promote the positive transfer of a native language. Urai Salam et al. (2020) aim to describe the various learning styles and strategies utilized by a research subject during the four years of a study program. The data was collected through various means, such as interviews, questionnaires, and documents. The goal of the study was to determine the student's learning style and the strategies that they use to achieve it. The study revealed that the successful foreign language learner performed two different learning styles, which are visual and individual. The subjects were then asked to identify the style that they learned best.

Derya Uysal et al. (2019) study aims to analyze the existing literature on motivational strategies used in Turkish language teaching. It shows that the strategies are often used in a biased manner. Meta-synthesis studies aim to explain a particular phenomenon or concept through the synthesis of various studies conducted on that subject. The findings of the studies are then presented and discussed in order to develop future research topics. Narges Saffari et al. discuss the transfer of mother tongue rhetoric from Persian to English in the writings of Iranian undergraduate ESL learners. They also discuss the various styles of writing that they prefer to use in their studies. The statistical analysis revealed that Iranian undergraduates use the same rhetorical patterns for their Persian and English writing. They also prefer to discuss the topic before writing their essays. Debra M Wolf and Linh Phung (2019) conduct this case study explored the experiences of Chinese nurses who completed their graduate degrees in English as a second language. The findings of this study revealed that international students have varying levels of difficulty with academic writing and

speaking. The study also highlighted the importance of addressing these issues in order to improve academic support services.

Yanilis Romero et al. (2017) present a case study to analyze the influence of the first language on the learning of a foreign foreign language. It was carried out with a student from Saudi Arabia. The findings of this case study supported the concept of cognitive assessment and early learning theory (EA) in studying the effects of the first language on a learner's learning process. It was revealed that the learner had a better performance in terms of receptive skills. Sandro Sehic(2017) studies the effects of learning English language on creativity skills such as flexibility, originality, and fluency. The study revealed that the differences in the domains of flexibility, creativity, and fluency were not significant. Saraswati Dawadi (2017) investigates the use of language learning strategies by English-speaking students in Nepal. The findings indicate that students use metacognitive strategies such as compensation and cognitive strategies more than other strategies. Affective strategies were the least preferred strategies by the participants. T-test results revealed significant differences between male and female learners in the use of overall strategies; male students reported using LLS more frequently than female students. Additionally, it was found that male students favoured compensation, social, and affective strategies more than their female peers, whereas female students preferred cognitive and metacognitive strategies more than their male peers.

Yi-Jiun Joul (2015) aims to investigate the use of metacognitive reading techniques by college students while reading academic materials in their first and second language. The metacognitive reading strategies questionnaire was used to investigate the use of metacognitive strategies in terms of academic article reading. It revealed that students tend to use both analytical and pragmatic reading strategies when they read academic articles. This study aims to study the differences in usage of metacognitive reading strategies between L1 and L2 students. It will also help guide students in applying the strategies effectively

Khaled Karim and Hossein Nassaj (2013) study to analyze the various theories about L1 transfer and to provide suggestions for future research on how this tool can be utilized in L2 writing instruction. The paper also reviews some of the studies that have examined this topic.

Seyed Hassani (2012) tries to find out the relationship between the languages and one's multi-competence. He has conducted studies that show that the improvement of one's reading skills can be translated into other languages. Although the transferability power of reading is universal, it can be limited by the factors that affect its effect. Those factors include language proficiency and directionality of transfer. An increase in the process or reading can also improve the product of reading as it will make it more likely to be completed in the language of instruction.

Ailing Kong (2006) investigates the strategies used by four adult Chinese readers to read both Chinese and English texts. They used different strategies in both cases. Most participants were critical of the author's opinions when evaluating the Chinese texts. Those with a high level of L2 proficiency were more likely to transfer their strategy use from the Chinese L1 to the English L2.

The goal of this study is to investigate the effects of orthographic influence on the cognitive processing involved in reading second language by Keiko Koda Ohio University. Previous studies suggested that different strategies for recoding are used by different types of readers. This study aims to find out if these strategies can be utilized in L2. This study shows that reading among English, Spanish, and Arabic phonographic readers is seriously impaired when they cannot access essential information. The study also showed that the use of L1 strategies in reading English is similar to the reading process of L2 readers.

Rebecca L. Oxford (1990) synthesizes research from various parts of the world on two key variables affecting language learning: styles, i.e., the general approaches to learning a language; and strategies, the specific behaviors or thoughts learners use to enhance their language learning. These factors influence the student's ability to learn in a particular instructional framework.

Objectives of the Study

The researcher aimed to check out the strategies, which are used in English and Telugu language.

1. To find out the strategies, which are used in English language reading and writing
2. To know about the strategies, which are used in Telugu language reading and writing
3. To check there is any possibility of transfer of strategies from Telugu to English
4. To find out the similarity or difference between these strategies in both languages through questionnaire

Research Questions:

1. What are the strategies used in English reading and writing?
2. What are the strategies used in Telugu reading and writing?
3. Is there any possibility of transfer of strategies in both languages?
4. Is there similarity or difference in between these two languages through the strategies?

Methodology

This is a sample study to identify the the strategies used or not in Telugu and English language. This research is based on questionnaire method. And through this method, the researcher can get a conclusion about under graduate students’ interest towards English learning as a second language. The sample for this study has taken from low percentage students in English language as a subject in academic, under graduate students, whom were completed their secondary school education or intermediate education in Telugu medium and joined in English medium for their graduation, low percentage students in English

language as a subject in academics, whom are studying first year and second year of degree in a government degree college, at Nalgonda. And the researcher conducted test in questionnaire method.

Questionnaire of the study:

All questions are adopted from (SILL) Strategy Inventory for Language Learning (SILL, Version 7.0) by Rebecca L. Oxford.1990. These strategies are six types, these are Memorization, Cognitive, Compensation, Metacognitive, Affective and Social strategies. From these six, the researcher had taken only two, which are most used in reading and writing skills. The researcher had taken only skills of language these are reading and writing. To get to know more information in reading and writing skills in English and Telugu, these strategies will help more.

Data collection: the data collection done by conducting test in the form of questionnaire to the students. These students are studying second year under graduation in Nalgonda Govt College, Telangana.

Analysis of data:

The data collected through questionnaire. These questions are divided into the type of strategies of reading and writing. In the questionnaire, likert five point scale used. In the analysis part, the options of the questions had taken as one, two, three, four and five number form. In analysis, first added in the data in excel sheet and arranged all these in strategy type and skill type wise. After that, the researcher, find out the average of cognitive and metacognitive strategies in English reading skill.

Questions of cognitive strategy of reading skill in English

participant	Cognitive strategies	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S
M. Rajesh	3	3	3	3	1	2	3	2	2
V.Bhavani	2	2	3	3	2	4	3	3	3
T. Dinesh	2	2	2	3	3	1	2	3	2
R. Joseph	3	2	2	1	3	3	1	2	3
G. Vijaya	3	2	2	3	3	3	3	1	4
V. Balu	2	3	2	2	3	3	2	2	2
G. Baby	1	2	5	2	3	2	3	3	4
G. Therisa	1	2	3	2	2	2	1	1	3

$$\bar{X} = \frac{\sum X}{n}$$

Mean(average) :

Avg =2.416667. It is the average of cognitive strategies in reading skill of English language

Questions of Metacognitive strategy of reading skill in English

Participant	Metacognitive strategies	M.S	M.S	M.S	M.S	M.S	M.S	M.S
M. Rajesh	3	3	1	3	3	2	3	2
V. Bhavani	2	2	2	2	2	2	2	2
T. Dinesh	1	1	2	2	3	3	3	3
R. Joseph	2	3	3	2	3	2	3	2
G. Vijaya	2	2	2	3	1	2	2	2
V. Balu	3	3	2	3	1	1	3	3
G. Baby	2	1	3	2	3	1	2	3
G. Therisa	2	3	3	3	1	3	3	2

Avg=2.28125. It is the average of metacognitive strategies in reading skill of English language.

Questions of Cognitive Strategy of Writing skill in English

Participant	Cognitive strategies	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S
M. Rajesh	3	2	3	2	3	2	3	2	3	3
V. Bhavani	2	3	3	3	3	2	3	2	2	2
T. Dinesh	3	2	2	3	3	3	2	3	2	2
R. Joseph	2	2	3	4	2	3	1	3	2	3
G. Vijaya	2	3	2	1	2	3	3	3	2	2
V. Balu	3	3	1	2	3	3	2	3	3	3
G. Baby	3	3	2	2	3	3	3	3	2	2
G. Therisa	3	3	3	3	3	3	2	2	3	3

Avg=2.55. It is the average of cognitive strategies in writing skill of English language.

Questions of metacognitive strategy in writing skill of English

Participant	Metacognitive Strategies	M.S	M.S	M.S	M.S	M.S	M.S	M.S
M. Rajesh	3	2	1	2	2	3	3	2
V. Bhavani	2	2	2	2	3	3	3	1
T. Dinesh	3	1	2	2	2	3	3	2
R. Joseph	1	3	3	2	2	2	3	2
G. Vijaya	3	3	3	3	3	2	2	3
V. Balu	3	3	3	3	3	3	2	3
G. Baby	2	3	2	2	3	3	2	3
G. Therisa	3	2	3	3	2	3	2	3

Avg=2.46875. It is the average of metacognitive strategies in writing skill of English language.

Questions of Cognitive strategy in reading skill of Telugu

Participant	Cognitive strategies	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S
M. Rajesh	3	4	5	5	4	3	3	5	3
V. Bhavani	5	4	4	4	5	3	5	5	4
T. Dinesh	3	5	4	4	5	3	3	5	5
R. Joseph	4	3	3	3	3	4	4	5	4
G. Vijaya	3	3	3	3	5	5	3	3	5
V. Balu	3	3	3	3	4	3	4	5	4
G. Baby	4	3	5	5	3	3	4	3	5
G. Therisa	3	4	3	3	4	3	5	5	5

Avg=3.875. It is the average of cognitive strategies in reading skill of Telugu language.

Questions of Metacognitive strategy in reading skill of Telugu

Participant	Metacognitive Strategy	M.S	M.S	M.S	M.S	M.S	M.S	M.S	M.S
M. Rajesh	3	5	3	3	5	3	3	4	
V. Bhavani	4	4	4	4	4	4	3	4	
T. Dinesh	3	4	5	5	4	3	3	5	
R. Joseph	4	3	3	4	3	4	3	4	
G. Vijaya	3	3	4	3	3	4	5	3	
V. Balu	5	3	3	3	4	3	4	3	
G. Baby	3	3	5	5	3	3	4	4	
G. Therisa	4	4	3	3	5	3	4	3	

Avg=3.671875. It is the average of metacognitive strategies in reading skill of Telugu language.

Questions of Cognitive strategy in writing skill of Telugu

Participant	Cognitive Strategy	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S
M. Rajesh	3	3	3	4	3	3	4	4	3
V. Bhavani	4	4	3	3	4	4	3	5	4
T. Dinesh	3	4	4	4	5	4	4	5	5
R. Joseph	4	3	3	5	4	5	3	4	4
G. Vijaya	3	3	4	3	5	4	4	3	5
V. Balu	3	4	3	4	3	3	5	3	4
G. Baby	4	3	4	4	3	4	4	4	5
G. Therisa	3	4	3	3	4	3	5	3	4

Avg=3.78. It is the average of cognitive strategies in writing skill of Telugu language.

Questions of Metacognitive strategy in writing skill of Telugu

Participant	Metacognitive Strategy	M.S	M.S	M.S	M.S	M.S	M.S	M.S	M.S
M. Rajesh	3	2	4	4	4	5	4	4	
V. Bhavani	4	5	5	5	3	3	5	5	
T. Dinesh	3	5	4	4	5	4	4	4	

R. Joseph	4	3	5	5	4	5	5	5
G. Vijaya	3	3	5	3	4	5	5	4
V. Balu	3	3	3	4	3	3	5	3
G. Baby	4	3	4	5	5	4	5	5
G. Therisa	3	4	3	3	5	3	5	5

Avg=4.046875. It is the average of metacognitive strategies in writing skill of Telugu language.

AVG 1	AVG2	AVG3	AVG4
2.416667	2.55	3.875	3.78
2.28125	2.46875	3.671875	4.046875

Avg1 means averages of cognitive and metacognitive strategies of reading skill of English language.

Avg2 means averages of cognitive and metacognitive strategies of writing skill of English language.

Avg3 means averages of cognitive and metacognitive strategies of reading skill of Telugu language.

Avg4 means averages of cognitive and metacognitive strategies of writing skill of English language.

AVG1	AVG3	AVG2	AVG4
2.416667	3.875	2.55	3.78
2.28125	3.671875	2.46875	4.046875

The researcher divided the data into four parts based on the strategies and skills of both languages. Here, the four averages are explained above and with those the researcher found out the standard deviation of those four skill averages in both language under reading and writing skills. Avg1 and Avg3 are related to reading skill of English and Telugu respectively. Avg2 and Avg4 are related to writing skill of English and Telugu language respectively. With those four sets the researcher conducted the standard deviation for reading skill of English and Telugu. And for writing skill of English and Telugu.

Standard deviation formula(σ)

$$s = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1}}$$

STDEV1	STDEV3	STDEV2	STDEV4
0.095754	0.143631	0.057452	0.188709

Here, the standard deviation of the four sets of data found out and these are almost near to

zero value. So, the standard deviations of these four sets are near to the averages of these sets. And these standard deviations are 1 tail distributions. After that, with these standard deviations the researcher found out the ttest results with reading skill of English and Telugu languages. And other ttest with the help of writing skill standard deviations of English and Telugu languages.

These values are

STDEV1	STDEV3
0.095754	0.143631

$$t = \frac{(x_1 - x_2)}{\sqrt{\frac{(s_1)^2}{n_1} + \frac{(s_2)^2}{n_2}}}$$

Ttest for these two sets is

TTEST1
0.007563

STDEV1 is the standard deviation of cognitive and metacognitive strategy of reading skill in English.

STDEV3 is the standard deviation of cognitive and metacognitive strategy of reading skill in Telugu.

TTEST 1 is TTEST of reading skill in both English and Telugu languages.

STDEV2 STDEV4
0.057452 0.188709

Ttest for these set is TTEST2
= 0.039261

STDEV2 is the standard deviation of cognitive and metacognitive strategy of writing skill in English.

STDEV4 is the standard deviation of cognitive and metacognitive strategy of writing skill in Telugu.

TTEST 2 is TTEST of writing skill in both English and Telugu languages.

Here, ttests are both can be <0.05 , it is a paired data and it is one tail data. These two ttest values are less than 0.05 and it shows that the reading skill of English and Telugu languages have some difference in between. And in the same way the ttest value of writing skill of English and Telugu has some difference in between.

Conclusion

The learner have a lot of doubts and fear about learneing English as a second language. Basically, the sample was completed their intermediate education in Telugu medium and they donot have much knowledge about rules of English language. They hesitated clarify their doubts infront of the whole class,they cannot even talk in English with other students. Because of low confidence and low proficiency

level of English language. The strategies are used in Telugu langugae reading and writing skills but not in English language reading and writing skills. Because, the learner may not know exact way of using these strategies and they knew about their mother tongue and they can implement the strategies consciously and unconsciously in Telugu language. They have some frighten feeling about learning English as a second so, they can just follow whatever the teacher said in the class, they don't think about implementation of strtageies too. If we can impleent any new way to use strategies in English classroom through Telugu language. It will give good knowledge and skills to the learner to how to use strategies in English language. By using the questionnaire, data collected and analysed and found out that there is much difference in between English reading and writing skills and Telugu reading and writing skills in the veiw of using stratgeies in both languages. In Telugu langguage, the learner used tsrategies and in English language, the learner don't know about using strategies in a proper way. In the ttest, for both reading and writing skills have differences in English and Telugu. We can take it as a main difference between these two languages and try to implement new methods of using strategies in English language with learner centered methods in the English classroom. This study is mainly conducted to get know about whether they are using strategies in both labguages or not. As per the researcher's point of view, they used strategies in their mother tongue without knowing these are strategies and they donot use strategies in English language learning. By introducing and implementing new methods like task based learning, and storytelling methods to get involvemnt of learner in the English language classroom.

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Questionnaire of this study:

For reading strategies in English language:

Cognitive strategies:

1. While answering the comprehension questions do you re-read the passages to answer some specific questions?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

2. Do you underline the important words and sentences while reading?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

3. Do you scan the text for specific words when you do reading comprehension?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

4. Do you read as much as possible in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

5. Do you first skim-read an English passage when you do reading comprehension?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

6. Do you look for words in your's own language that are similar to new words in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

7. Do you understand the text easily when read in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

8. Do you practice the difficult sounds in English text?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

Metacognitive strategies:

1. While reading the passages do you try to identify the main ideas and the supporting ideas?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

2. While reading do you stop at certain places to re-read something that you could not understand?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

3. Do you plan your schedule so that you will have enough time to read English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

4. Do you plan out in advance how you are going to read a text in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

5. Do you look for opportunities to read as much as possible in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

6. Do you try to find out how to be a better reader of English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

7. Do you follow specific styles when you read an English text?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

8. Do you correct your mistakes in reading in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me. D. Usually true of me, E. Always or almost always true of me

9. Do you analyse the text when you read it?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me. D. Usually true of me, E. Always or almost always true of me

**For writing skill in English language:
Cognitive strategies:**

1. Do you note the main ideas and supporting ideas in a separate piece of paper before writing the essay?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

2. While writing the essay do you try to elaborate the main ideas and the supporting ideas?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

3. Do you try to summarize the main ideas and the supporting ideas of the passage in the summary?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

4. Do you try to use your own word while writing the summary?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

5. Do you write new English words several times?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

6. Do you write notes, messages, letters or reports in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

7. Do you make summaries of information that you hear or read in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

8. Do you synthesize the text before you write a summary about it?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

9. Do you make note-taking before you write a summary of a text in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

10. Do you practice structures and sounds in a text before you write summary about it?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me

Metacognitive strategies:

1. Before writing the essay do you think about the main ideas and the supporting ideas that would be expressed in the essay?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me, D. Usually true of me, E. Always or almost always true of me.

2. Do you plan in advance the sequence in which the main ideas and the supporting ideas will be presented in the essay?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me D. Usually true of me, E. Always or almost always true of me

3. Do you try to find as many ways as you can to use in your English writing?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

4. Do you look for opportunities to write as much as possible in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

5. Do you try to find out how to be a better writer of English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

6. Do you gather and organize materials before you write an essay in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

7. Do you monitor your mistakes in your writing in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

8. Do you evaluate your tasks/essays/summaries in English?

A. Never or almost never true of me, B. Usually not true of me, C. Somewhat true of me,

D. Usually true of me, E. Always or almost always true of me.

తెలుగు చదవడానికి ఉపయోగించే వ్యాసాలు :

Cognitive strategies:

1. మీరు చదివేటప్పుడు ముఖ్యమైన పదాలని మరియు వాక్యాలని గుర్తిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

2. మీరు రీడింగ్ కాంప్రహెన్షన్ చేసేటప్పుడు నిర్దిష్ట పదాల కోసం ఇచ్చిన పేరాల్లో అన్వేషిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

3. మీరు సాధ్యమైనంత ఎక్కువ తెలుగు లో చదువుతారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

4. మీరు తెలుగు లో రీడింగ్ కాంప్రహెన్షన్ చేసేటప్పుడు ముందు ఇచ్చిన ప్రకరణం యొక్క సారాంశం తెలుసుకున్నారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

5. మీరు తెలుగు లో మీకు తెలియని పదాల అర్థాల కోసం మీకు తెలిసిన పదాలని చూసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

6. మీరు కావల్సినంత తెలుగు చదవడానికి షెడ్యూల్ వేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

7. మీరు చదివేటప్పుడు p ని విశ్లేషణ చేస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

8. మీరు తెలుగు చదివేటప్పుడు నిర్దిష్ట శైలిని అనుసరిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

9. మీరు తెలుగు చదివేటప్పుడు మీ తప్పులను సరిచేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

MetaCognitive Strategies:

1. మీరు గద్యాలు చదివేటప్పుడు ప్రధానమైన ఆలోచనలను మరియు మద్దతు ఆలోచనలను గుర్తించడానికి ప్రయత్నించారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

2. మీరు చదివేటప్పుడు ఏదైనా అర్థం కాకపోతే ఆగి మళ్ళీ చదువుతారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

3. మీరు తెలుగు లో ప్రకరణం చదవడానికి ముందే ప్రణాళిక వేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

4. మీరు తెలుగు లో చదవడానికి వీలైనన్ని అవకాశాలు వెతుక్కుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

5. మీరు లోటి విద్యార్థులతో కలిసి తెలుగు చదవడం సాధన చేస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

6. మీరు తెలుగు లో కఠిన శబ్దాలను సాధన చేస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

7. మీరు తెలుగు చదివేటప్పుడు గందరగోళంగా ఉన్న పదాల స్పష్టత కోసం ఇతరులని అడుగుతారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

8. మీరు తెలుగు చదివేటప్పుడు మీ తప్పులను సరిచేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

తెలుగు రాయడానికి ఉపయోగించే వ్యూహాలు:

Cognitive strategies:

1. మీరు వ్యాసం రాసేటప్పుడు ప్రధానమైన మరియు మద్దతు ఆలోచనలని వివరించి రాయడానికి ప్రయత్నిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

2. మీరు వ్యాస సారాంశంలో ప్రధానమైన మరియు మద్దతు ఆలోచనల సారాంశాన్ని రాయడానికి ప్రయత్నిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

3. మీరు సారాంశం రాసేటప్పుడు మీ సొంత పదాలని ఉపయోగిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

4. మీరు నోట్స్ , సందేశాలు మరియు నివేదికలు తెలుగు లోనే రాస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

5. మీరు విన్న లేదా చదివిన సమాచారాన్ని సారాంశంగా తయారు చేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

6. మీరు సాధ్యమైనంత వరకు తెలుగు లో రాయడానికి ప్రయత్నిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

7. మీరు సారాంశాన్ని రాయడానికి ముందు విషయ సేకరణ చేస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

8. మీరు సారాంశాన్ని రాయడానికి ముందు శబ్దాలని మరియు నిర్మాణాలని సాధన చేస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

9. మీరు వ్యాసం రాయడానికి కావాల్సిన సమాశాన్ని సేకరించి ఉంచుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

Metacognitive strategies:

1. మీరు తెలుగు లో వ్యాసం రాయడానికి ముందు దానికి సంబంధించిన ప్రధానమైన ఆలోచనలు మరియు మద్దతు ఆలోచనల గురించి ఆలోచిస్తారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

2. మీరు వ్యాసానికి సంబంధించిన ప్రధానమైన ఆలోచనలని మరియు మద్దతు ఆలోచనలని వరుస క్రమంలో అమర్చుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

3. మీరు తెలుగు లో రాయడానికి కావలసినన్ని అవకాశాలని వెతుక్కుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

4. మీరు తెలుగు రాయడం లో ఇతరుల నుండి సహాయం తీసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

5. మీరు సారాంశం రాయడానికి ముందు దాన్ని అవగాహన చేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

6. మీరు తెలుగు లో మీ తప్పులని సరిచేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

7. మీరు మీ పనులని/వ్యాసాల్ని/సారాంశాల్ని మీరే మూల్యాంకనం[ద్దిద్దుకుంటారు] చేసుకుంటారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

8. మీరు ఇతరులని మీ తప్పులని సరిచేయమని అడుగుతారు?

a. ఎప్పుడూ నిజం కాదు b. సాధారణంగా నిజం కాదు c. కొంత వరకు నిజం d. సాధారణంగా నిజం e. ఎప్పుడూ నిజం

EXAMINING THE EFFECT OF DEMOGRAPHIC VARIABLES ON M-COMMERCE ADOPTION

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ABSTRACT

Traditional mode of shopping is getting replaced by digital mode where mobile phones play a very significant role. So, it becomes necessary to know the factors that draw people towards adopting this medium of commerce. This study was undertaken to examine the relationship between demographic variable namely, age, gender, occupation, income, type of family and marital status on different mobile commerce adoption intention. Despite the fact that sample size was small and area for collecting sample was restricted to one district of Gujarat, this study would give some insights into the demographic profile of m-commerce users. Those business houses who want to enter into mobile commerce may find this study useful as it gives insight into the socio-economic details of target group which would help the marketers while deciding their strategies.

Keywords: Mobile Commerce, Demographic variable, Attitude, Adoption Intention

Introduction

Advances in Information and communication technology (ICT) in the form wireless mobile communication technology has allowed consumers to plan, browse and acquire products and services from anywhere at any time. The increase in purchasing power due to higher disposable income coupled with high wireless subscriber base, implementation of 4G network, mounting demand for rich mobile contents, social networking trends, increasing enterprise mobility, broader reach and flexibility, contextual marketing and the changes in expectation and behaviour pattern of consumers with regard to shopping were the factors that have largely contributed to the growth of M-commerce. As more people have started using wireless internet for buying goods and services, it is very important to identify the demographic profile of users of this medium of commerce. This study would make an attempt to throw some light on that aspect as the researcher in this study have made an earnest attempt to identify the demographic profile of m-commerce users. The paper is organised into different section. First section discusses about conceptual back ground of the study followed by Review of Literature. Objectives, Hypothesis and Research Methodology part is discussed later. In the third section, data analysis and interpretations are given followed by findings, implications and conclusions.

A Brief Review of Literature

Age was found to be an important factor in technology adoption as young consumers, being born in a digital era are more technologically proficient than people of other age groups (Pieri and Diamantinir, 2010). While some researchers (Pederson, 2005; Islam et al., 2010) found age to be an important predictor of m-commerce, others have expressed their reservations (Kalliny, M. and Minor, M., 2006). Chong et al., (2012) investigated the predictors of m-commerce and found that except age, other demographic factors like gender and education have no role to play in adoption decision. Moderating role of gender on m-commerce adoption was studied by many researchers, Liébaná-Cabanillas et al. (2014) studied in m-payment context and found gender as an important factor for m-payment adoption where the impact was greater in men than women. Sohn et al., (2014) found that adoption factors of people differ as per gender as males prefer utilitarian apps whereas females preferred hedonic apps. Similar results were found in studies conducted by Okazaki and Mendez (2013) and Marinkovic et.al., (2020) in m-commerce adoption. Direct role of gender was studied by Yang (2005) in m-commerce and Teo et al. (2012) in m-banking and they found that gender played a major role in adoption decision. Some studies have found that men are

more likely to adopt m-commerce than their counterparts (Yang, 2005) while others have found that gender gaps are lessening or disappearing (Enrique Bigné et al., 2007; Chong, 2013; Faqih and Jaradat, 2015). Dekimpe et al. (2000) and Muthaiyah (2004) indicated that income plays an important role in mobile commerce adoption as it affects the penetration level of mobile technology whereas it was not found to be an important determinant in m-purchase decision (Enrique Bigné, 2007). Li et al. (2014) found that education had a significant impact whereas gender recorded no major effect on adoption. Marumbwa (2014) found that age and gender had negative influence whereas education and employment had positive influence on user's acceptance. Sheehan (2002) revealed that people with high education were more worried about the privacy related to online transactions and people with high income were having less concern regarding information privacy (O'Neil, 2001).

Objectives and Hypothesis of the Research Study

Most of the previous studies were focused on technology adoption, neglecting the effect of demographic variables on adoption intention. Investigating the influence of demographic variables would help the m-commerce vendors to re-segment their target market and to personalise their offering as per the target group's requirement. This information would be beneficial to advertisers to decide their positioning strategies accordingly. So, the researchers should have a clear understanding of the demographic profile of the consumers and their adoption behavior towards m-commerce services. The main objective of the study was to find the impact of selected demographic variables viz., Age, income, gender, occupation, type of family and marital status of selected consumers on their adoption decision. Based on the above literature review the following hypothesis have been developed:

H1: There is no significant difference between demographic variables namely the respondents' age, with their intention to adopt M-Commerce.

H2: There is no significant difference between demographic variables namely the

respondents' gender, with their intention to adopt M-Commerce.

H3: There is no significant difference between demographic variables namely the respondents' income, with their intention to adopt M-Commerce.

H4: There is no significant difference between demographic variables namely the respondents' occupation, with their intention to adopt M-Commerce.

H5: There is no significant difference between demographic variables namely the respondents' marital status with their intention to adopt M-Commerce.

H6: There is no significant difference between demographic variables namely the respondents' type of family with their intention to adopt M-Commerce.

Research Methodology

The research design of the study considering its objectives, rationale, scope and coverage was explorative as well as descriptive in nature. The Structured non-disguised questionnaire was used to collect primary data from mobile phone users of Vadodara by using convenience and quota sampling. The samples were collected from different market places, shopping malls, office complexes and some residential areas of Vadodara. The questionnaire was employed to measure their attitude and intention to engage in mobile commerce. A male & female mobile phone user residing in the city of Vadodara, above 16 years of age were considered as a representative sampling unit.

The questionnaire contains demographic profile of respondents based on age, gender, marital status, type of family, occupation, and annual income are given in Table Number-01.

Table Number-01: Descriptive statistics of Demographic variable (n = 350)

Measure	Level	Frequency	Percent (n=350)
Age (yrs.)	16-30	102	29.1
	31-50	173	49.4
	>50	75	21.4
Gender	Male	171	48.9
	Female	179	51.1
Marital Status	Unmarried	48	13.7
	Married	298	85.1

	Single	4	1.1
Type of Family	Joint	150	42.9
	Nuclear	200	57.1
Occupation	Student	99	28.3
	Service	137	39.1
	Self-Employed	94	26.9
	Unemployed	20	5.7
Annual Income (Rs.)	<6 Lakh	95	27.1
	6-9 Lakh	143	40.9
	9-12 Lakh	69	19.7
	>12 Lakh	43	12.3

Assessing the Normality of the Distribution of Data

Test of Normality of the Distribution

As the assumption of normality is a prerequisite for many inferential statistical techniques, an attempt was made to assess the normality of the data that was collected from 350 people belonging to different sections of the society from Vadodara, Gujarat. The p-value of Kolmogorov-Smirnov Statistics (0.000) and Shapiro-Wilk Statistics (0.000) shows that data is not normal.

The analysis about the opinion of selected mobile commerce users on the drivers of m-commerce adoption intention showed a negative skewness with the value of -2.856 and kurtosis with a value of 8.125 indicates that the

distribution is peaked. The peakedness is also supported by the shape of the curve of the histogram as well as the median value positioned in the centre of the box plot which indicated that distribution cannot be assumed to be normal. As data is not normally distributed non-parametric was used to analyse the data. Chi-square was performed to test the association among demographic variables namely age, gender, educational qualification and occupation and the eleven constructs of the study.

Pre-tested questionnaire was used to analyse the data. Reliability and Validity details are given in Table Number -02. Reliability of the questionnaire was tested using Cronbach Alpha. As the Cronbach alpha for all the eleven variables have reliability coefficient of .7 and more, we can interpret that the items have good internal consistency and the questionnaire is reliable for the purpose of the research. Exploratory factor analysis (EFA) was performed to know the underlying relationships between measured variables and to scrutinize its internal dependability. The results of Cronbach alpha and exploratory factory analysis shows reliability and validity of the data for further analysis. In order to know the sample adequacy, KMO test was conducted. From the Bartlett's test of sphericity that P value is less than 0.001 and KMO measure is 0.706. The significant values Bartlett's test and KMO value (>0.6) shows that sample is adequate for doing the research study

Table Number-02: Summary of Exploratory Factor Analysis and Cronbach alpha

Variable	Original item	Deleted item	Actual item	Factor loading	Reliability (Cronbach alpha)
PC	9	0	9	0.685-0.837	0.925
PER	5	0	5	0.639-0.850	0.843
PRY	3	0	3	0.497-0.627	0.774
PT	9	0	9	0.635-0.840	0.679
PR	7	0	7	0.612-0.856	0.849
PEOU &PU	12	1	11	0.517-0.833	0.889
SN	8	0	8	0.421-0.788	0.704
PBC	8	2	6	0.623-0.857	0.729
AT	9	2	7	0.549-0.857	0.772
AI	11	0	11	0.442-0.812	0.893

Table Number-03: Association of Adoption intention statements with various demographic variables using Chi-Square Test

Factors	Age	Gender	Marital Status	Family	Income	Occupation
Cost	0.511	0.618	0.289	0.619	0.912	0.954
Personalisation	0.392	0.939	0.111	0.232	0.299	0.332
Privacy	0.097	0.693	0.517	0.271	0.224	0.289
Trust	0.819	0.400	0.680	0.792	0.962	0.846
Risk	0.334	0.931	0.950	0.262	0.058	0.431
Userfriendliness	0.584	0.627	0.711	0.175	0.847	0.714
Ease of Use	0.686	0.488	0.011*	0.975	0.991	0.293
Attitude	0.131	0.943	0.014*	0.727	0.890	0.141
Intention to continue	0.564	0.348	0.049*	0.789	0.592	0.281
More frequent adoption in future	0.007*	0.275	0.014*	0.869	0.292	0.022*
Willingness to recommend	0.440	0.101	0.081	0.561	0.346	0.295

From the Table Number-03 it was examined that age and occupation of the m-commerce users affected the adoption of m-commerce. Marital Status affected ease of use, attitude, continuous use, adoption of m-commerce rest of the demographic variable were not associated with the variable under study.

Table Number-04: Hypothesis Testing and Major Findings of the Study

Table Number-04: Results of Kruskal-Wallis Test and Mann-Whitney Test				
Sr. No.	Null Hypothesis	Test	Sign	Decision
1	The mean value of opinion of respondents of different age group, on their M-commerce adoption intention is same.	Kruskal Wallis	0.119	Fail to reject
2	The median value of opinion of respondents from different occupation, on their M-commerce adoption intention is same.	Kruskal Wallis	0.095	Fail to reject
3	The median value of opinion of respondents of different income groups, on their M-commerce adoption intention is same.	Kruskal Wallis	0.582	Fail to reject
4	The median value of opinion of respondents of different Gender, on their M-commerce adoption intention is same.	Mann-Whitney	0.334	Fail to reject
5	The median value of opinion of respondents of different marital status, on their M-commerce adoption intention is same.	Mann-Whitney	0.031*	Reject
6	The median value of opinion of respondents of different type of family setup, on their M-commerce adoption intention is same.	Mann-Whitney	0.200	Fail to reject

Note: * Result is significant at 0.05 level

As the data is not normal, non-parametric test is used to test the hypothesis. Kruskal Wallis test is used to test hypothesis related to age, occupation, income and Mann-Whitney test is

used to test hypothesis related to gender, marital status and type of family. Result of the test is given in table number-04

To compare median value of respondents of different age group on their adoption

intention, Kruskal-Wallis test is applied. Mean rank is 158.94 for the age group of 16-30, 180.52 for age group between 31-50 and 186.43 for the people who are above 50 years of age. The results show that median adoption increases with age. P-value (0.119) shows that the result is not significant. Though there is increasing trend as age increases adoption increases, but it is not statistically significant. So, it can be concluded that there is no significant difference in the median adoption intention of individual between difference age group as the p-value (0.119) is more than 0.05. To compare median value of variable on the basis of occupation on their adoption intention, Kruskal-Wallis test is applied. From the table, it can be observed that Mean rank for student/non-working is 161.19, 177.76 for service people and 190.33 for self-employed. Adoption rate is more on self-employed people and comparatively low on student/ non-working category. Though the above table show that mean rank is more among self-employed people, the results of statistical test based on p-value (0.095) shows that it is not statistically significant. So, it can be concluded that there is no significant difference in the median adoption intention of individual between difference occupational background as the p-value (0.095) is more than 0.05.

From the table it can be observed that mean rank of respondents on the basis of income is 180.77 (<6 lakhs), 171.82(between 6-9 lakhs), 166.78(9-12 lakhs) and 190.07 for income more than 12 lakhs. The p-value (0.582) show that the result is not significant. So, it can be concluded that there is no significant difference in the median adoption intention of individual between difference income group as the p-value (0.095) is more than 0.05. Results of Mann-Whitney test show that the mean rank is more in female (180.47) than male (170.29). P-value (0.334) shows that there is no significant difference in the mean adoption rate among respondents on the basis of gender.

From the above table it can be seen that median value is 53 for unmarried/single and 54 for married people. Mean rank is more in case of married people (180.26) than unmarried (148.24). It shows that adoption rate is more among married people. P-value (0.031) shows significant result which proves that adoption

rate is more among married than unmarried people. Mann-Whitney test show that the mean rank is more in case of nuclear family (181.34) than joint family (167.71). P-value (0.200) shows insignificant result. So, it can be concluded that there is no significant difference in the adoption intention of individual on the basis of type of family set up.

Implications and Conclusions

India is currently the world's second largest telecommunication market with a subscriber base of 1.20 billion and ranks second in terms of number internet subscribers and app downloads globally (ibef.org). Due to the increasing popularity of mobile phone, this medium provides a huge potential for doing commerce. Based on Review of Literature, an attempt has been made to know the possible demographic factors that affect drivers of m-commerce adoption intention. Data were collected from 350 respondents from different sections of the society. The findings showed that there is no significant difference found in the mean adoption intention of individual on the basis of age. Income was not an important factor affecting m-commerce adoption as mobile device and data charges are quite low in India compared to other countries. No significant relation was found in the mean adoption rate of people on the basis of gender. But there was significant difference in the mean adoption of people as per their marital status as adoption rate is more among married people.

The findings of the study demonstrated that in contrast to majority of the research concerning the acceptance of e-commerce and m-commerce, the socio-economic characteristics of the individual namely age, income, occupation, family type and gender hardly had any influence on mobile commerce adoption. The socio-economic characteristics which were considered to play a very important role in the initial stage of adoption decision might have changed as the people might have gained enough experience of this medium of commerce (Gefen et al., 2003). The findings of the study support the opinion of Sun and Zhang (2006) that once an individual become experience with technology, the experience

acquired may nullify the effects of socio-economic characteristics.

The present study has tried to identify the demographic factors that are important for Indian consumers to adopt mobile commerce which would help the marketers while deciding their strategies. This study was focused on people living in Urban area. Due to growing significance of mobile commerce in India especially in Rural area having 70 percent of India's population, a separate study keeping in mind the unique needs of rural people would be quite useful. Despite the fact that sample size was small and area for collecting was restricted to one district of Gujarat, this study had made an attempt to provide some insights into the demographic profile of m-commerce users.

Based on the study the priority segment for companies to consider when launching their marketing campaigns should be that of young married people (both men and women) who are heavy mobile-users, preferably with previous experience of online shopping. Companies

which use Mobile as a shopping channel should be able to offer customised innovative services and contents with added value to improve the adoption rate of m-commerce. Those business houses who want to enter into mobile commerce may find this study useful as it gives insight into the socio-economic details of target group. Service providers and m-commerce vendors can concentrate on these factors while developing business models. The sample of this study consists of only the cellular phone users of Vadodara. The attitudes and behaviour of mobile users may not be same in other areas.

The future researchers can extend this study to other geographical areas. Moreover, the present study fails to capture the changes in the behaviour of people over time. A longitudinal study would be desirable to know the changes in tastes and behaviour of the consumers over time. The future research should investigate the effects of previous experience and level of involvement of users on their adoption intention.

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POSE INVARIANT FACE RECOGNITION IN VIDEO

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ABSTRACT

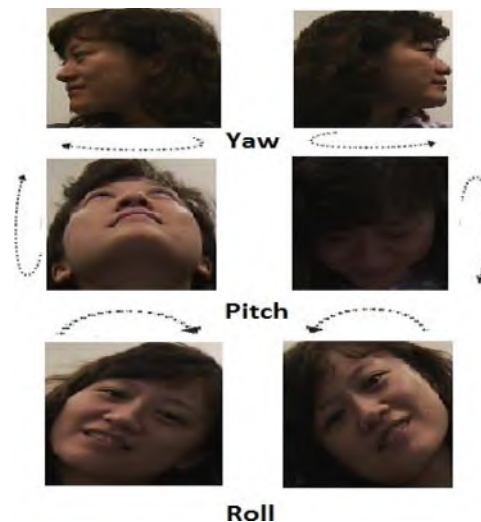
Pose variation is the challenging task in Video-based Face Recognition (VFR) system. The accuracy rate drastically decreases because of pose variation in yaw, pitch and roll angles (Fig. 1). In this paper, we have proposed an approach of Multi-Radius Rotation Invariant Local Binary Pattern (MRRILBP) to VFR for pose variations. We have taken the rotation invariant of three different radius for different sampling points of the same cell, which extracted the detailed features from available face area in pose variation. After pre-processing step the face area is divided into number of blocks, from which Multi-Radius Rotation Invariant Local Binary Pattern (MRRILBP) histograms are extracted. These MRRILBP histograms are high dimensional data features. Independent Component Analysis (ICA) is used to reduce these high dimensional data features. Euclidean Distance (ED) is used for matching the features. We have experimented with different face databases (ORL, NRC-IIT and HONDA-UCSD video database). Experimental results show that our system achieves better performance than other VFR algorithms on pose variation video face databases and thus advancing the state-of-the-art.

Keywords: VFR, MRRILBP, ICA, ED.

Introduction

In this paper, our task is to work on pose variation in video face databases. In VFR, we rarely view frontal faces or full face or 0° view. Most commonly, our visual experience of faces falls within a range of viewpoints rotated away from 0° to 45° to the left or right about the vertical axis is called as yaw, above or below about the horizontal axis is called as pitch and clockwise or anticlockwise about the depth axis is called as roll as shown in Fig. 1. We have experimented with three different face databases (ORL, NRC-IIT and HONDA-UCSD), it consist of these three pose variations (yaw, pitch and roll) [1]. Himanshu S. Bhatt, Richa Singh and Mayank Vatsa present a video-based face recognition algorithm that computes a discriminative video signature as an ordered list of still face images from a large dictionary.

Fig.1 Yaw, Pitch and Roll Angle



In his paper [2], as a future research direction, they plan to improve the performance at lower false accept rates. To yield better face recognition performance across large pose variations, from this future scope, we have proposed the MRRILBP to overcome the challenge of large pose variations ($\pm 90^{\circ}$). Face recognition algorithms are distinguished between model based and appearance based algorithms [3], [4], [5], model based algorithms use 2D or 3D face models and appearance based algorithms directly use image pixels or features extracted from image pixels. The literature survey shows that many efforts have been taken into the pose

invariant face recognition. David J. Baymer described the earliest appearance-based multi-view algorithm [6]. The algorithm geometrically aligns the probe images to candidate poses of the gallery subjects using the automatically determined locations of three feature points. Pentland et. al proposed a view-based approach to localize the object (or features on an object) and identify the correct 2D aspect [7]. M. Turk and Alex Pentland extended eigenface approach for face recognition [8]. Xi Yin and Xiaoming Liu proposed CNN-based MTL works of an energy-based weight analysis method [9]. Manar D. Samad and Khan M. Iftekharuddin proposed a novel Frenet frame-based generalized space curve representation method for 3D pose invariant face and facial expression recognition and classification [10]. Changxing Ding et. al proposed a novel face identification framework capable of handling the full range of pose variations within 90° of yaw [11]. Poonam Sharma et. al proposed a novel pose invariant face recognition method by combining curvelet invariant moments with curvelet neural network [12]. Sihao Ding et. al [13] presents a novel VFR algorithm using a sequential sampling and updating scheme, named sequential sample consensus (SSC). The proposed algorithm aims at providing a sequential scheme that can be applied to streaming video data. Ding proposed one limitation of the algorithm (SSC) is the requirement of a training video sequence of the frontal views of faces; it is difficult to recognize if the large poses appearing in the training videos are mostly different from those in the testing videos [13]. Kavita Singh et. al [14] presents a pose invariant face recognition system to annihilate pose problem by using a modified log Gabor algorithm and the concepts of rough sets together. In this paper, she present that most of the face images have shown pretty good results at full frontal faces and ±20° offset, but as soon as one goes towards the larger degree of orientations, there have been problems. Algorithm which is designed to work best with pose variation faces images. In many applications, it is not possible to meet these conditions. Some examples are surveillance, automatic tagging, and human robot interaction. Therefore, there have been

many recent efforts to develop algorithms that perform well with unconstrained face images. From the above literature survey, we found that many researchers worked on pose variation challenge on face image databases. Pose variation in video-based face recognition is still unsolved problem. In video face database the person can move his/her face in any angle, as this is a natural human tendency while talking. In this paper, we address the pose variation problem to

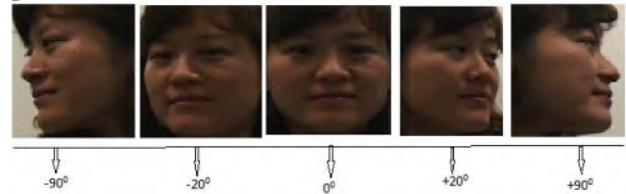


Fig.2 Pose Variation from 0° to 90°

combination of Multi-Radius Rotation Invariant Local Binary Pattern (MRRILBP), Independent Component Analysis (ICA) and Euclidean Distance (ED). The novelty of our system is that, it recognises the face in 0° to 90° angle in left and right profile (Fig. 2) from video face database. The database consists of male/female videos, moving their face in any angle. In one video it consists of 14 frames/second, nearby 300 frames in each Video. Video is a combination of frames/images with respect to time. The generic local binary pattern operator is derived from this joint distribution. As in the case of basic LBP, it is obtained by summing the threshold differences weighted by powers of two. The LBPP; R operator is defined as

$$LBP_{P,R}(x_c, y_c) = \sum_{p=0}^{P-1} s(g_p - g_c) 2^p \quad (1)$$

rotations of a textured input image cause the LBP patterns to translate into a different location and to rotate about their origin. Computing the histogram of LBP codes normalizes for translation, and normalization for rotation is achieved by rotation invariant mapping. In this mapping, each LBP binary code is circularly rotated into its minimum value i

$$LBP_{P,R}^{ri} = \min ROR(LBP_{P,R}, i) \quad (2)$$

where $ROR(x; i)$ denotes the circular bitwise right rotation of bit sequence x by i steps. Omitting sampling artifacts, the histogram of $LBP_{P,R}^{ri}$ codes is invariant only to rotations of

input image by angles $a \frac{360^0}{P}$ $a = 0, 1, \dots, P-1$.

However classification experiments show that this descriptor is very robust to in-plane rotations of images by any angle.

The rotation invariant LBP descriptor discussed above defined a mapping for individual LBP codes so that the histogram of the mapped codes is rotation invariant. In this section, a family of histogram transformations is presented that can be used to compute rotation invariant features from a uniform LBP histogram. Consider the uniform LBP histograms $h_l(U_P(n, r))$. The histogram value h_l at bin $U_P(n, r)$ is the number of occurrences of uniform pattern $U_P(n, r)$ in image I. If the image I is rotated by $\alpha = a \frac{360^0}{P}$

this rotation of the input image causes a cyclic shift in the histogram along each of the rows,

$$h_{l\alpha^0}(U_P(n, r+a)) = h_l(U_P(n, r)) \tag{3}$$

To achieve invariance to rotations of input image, features computed along the input histogram rows and are invariant to cyclic shifts can be used. Discrete Fourier Transform is used to construct these features.

Let $H_{(n)}$ be the DFT of n^{th} row of the histogram $h_l(U_P(n, r))$ i.e.

$$H(n, u) = \sum_{r=0}^{P-1} h_l(U_P(n, r)) e^{-i2\pi ur/P} \tag{4}$$

In [15] was shown that the Fourier magnitude spectrum

$$|H(n, u)| = \sqrt{H(n, u) \overline{H(n, u)}} \tag{5}$$

of the histogram rows results in features that are invariant to rotations of the input image. Based on this property, LBP-HF feature vector consisting of

three LBP histogram values (all zeros, all ones, non-uniform) and Fourier magnitude spectrum values was defined. The feature vectors have the following form:

$$f^v_{LBP-HF} = \left[|H(1, 0)|, \dots, \left| H\left(1, \frac{P}{2}\right) \right| \right],$$

$$\left[|H(P-1, 0)|, \dots, |H(P-1, P/2)|, \right. \\ \left. h(U_P(0, 0)), h(U_P(P, 0)), \right. \\ \left. h(U_P(P+1, 0)) \right]_{((P-1)(P/2+1)+3)}$$

It should also be noted that the Fourier magnitude spectrum contains rotation invariant uniform pattern features LBP^{riu2} as a subset, since

$$|H(n, 0)| = \sum h_l(U_P(n, r)) = hLBP^{riu2(n)} \tag{6}$$

An illustration of these features are as shown in Fig. 3.

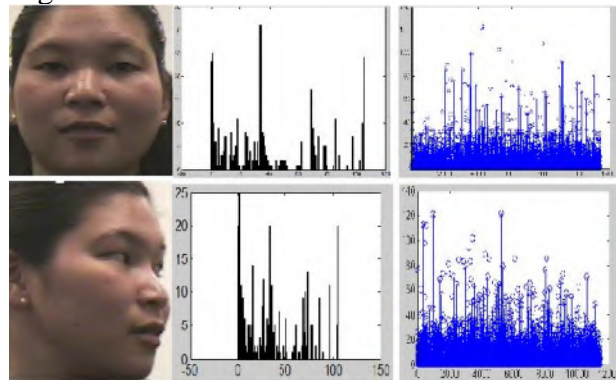


Fig. 3. 1st column: Original Frame at Orientations 0^0 (Training Frame) and 90^0 (Testing Frame). 2nd column: bins 1-256 of the Corresponding LBP^{riu2} Histograms. 3rd column: Rotation Invariant Features $|H(n, u)|, 1 \leq n \leq 7, LBP^{riu2}$.

Independent Component Analysis (ICA)

The performance of ICA depends on the features extracted by Multi-radius Rotation Invariant Local Binary Pattern (MRRILBP). ICA can be applied so as to treat MRRILBP features as random variables. This paper explores this space, in order to find the best technique for recognizing faces in pose variation video databases. The basis vectors that define any subspace can be thought of as image features. ICA architecture produce global features, in the sense that every image feature is influenced by every pixel. It makes them either susceptible to pose variations or sensitive to holistic properties. This paper shows that the algorithm depends first and foremost on the nature of the task. One characteristic of both PCA and PCA and LDA is that they produce spatially global feature

vectors. In other words, the basis vectors produced by PCA and LDA are non-zero for almost all dimensions, implying that a change to a single input pixel is altering every dimension of its subspace projection. There is also a lot of interest in techniques that create spatially localized feature vectors, in the hopes that they might be less susceptible to occlusion and would implement recognition by parts. The most common method for generating spatially localized features is to apply independent component analysis (ICA) to produce basis vectors that are statistically independent (not just linearly decorrelated, as with PCA). Non-negative matrix factorization (NMF) is another method for generating localized feature vectors. ICA can also be used to create feature vectors that uniformly distribute data samples in subspace. This conceptually very different use of ICA produces feature vectors that are not spatially localized. Instead, it produces feature vectors that draw fine distinctions between similar images in order to spread the samples in subspace. Keeping with the terminology introduced, we refer to the use of ICA to produce statistically independent compressed LDA is that they produce spatially global feature vectors. In other words, the basis vectors produced by PCA and LDA are non-zero for almost all dimensions, implying that a change to a single input pixel is altering every dimension of its subspace projection. There is also a lot of interest in techniques that create spatially localized feature vectors, in the hopes that they might be less susceptible to occlusion and would implement recognition by parts. The most common method for generating spatially localized features is to apply independent component analysis (ICA) to produce basis vectors that are statistically independent (not just linearly decorrelated, as with PCA). images. It generates compressed data with minimum mean squared reprojection error, ICA minimizes both second-order and higher-order dependencies in the input. It is intimately related to the blind source separation (BSS) problem, where the goal is to decompose an observed signal into a linear combination of unknown independent signals. Let s be the vector of unknown source signals and x be the vector of observed mixtures. If A is the

unknown mixing matrix, then the mixing model is written as:

$$x = As \tag{7}$$

It is assumed that the source signals are independent of each other and the mixing matrix A is invertible. Based on these assumptions and the observed mixtures, ICA algorithms try to find the mixing matrix A or the separating matrix W such that:

$$u = Wx = WAs \tag{8}$$

The equation 8 is an estimation of the independent source signals (Fig. 4)

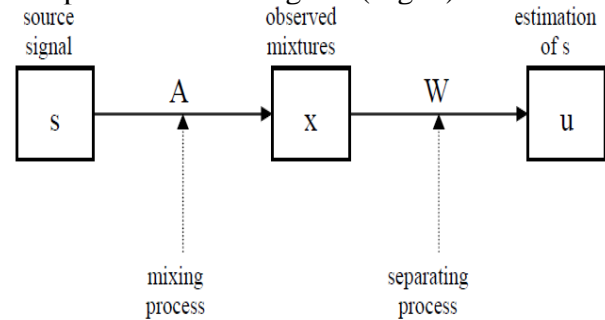


Fig. 4. Independent Source Signals

ICA goes one step further so that it transforms the whitened data into a set of statistically independent signals. While the basis images obtained are statistically independent, the coefficients that represent input images in the subspace defined by the basis images are not. The goal of ICA is to find statistically independent coefficients for input data. In this architecture, the input is transposed, the pixels are variables and the images are observation. The source separation is performed on the pixels, and each row of the learned weight matrix W is an image. A , the inverse matrix of W , contains the basis images in its columns. The statistically independent source coefficients in S that comprise the input images are recovered in the columns of U (Fig. 4). This architecture was used to find image filters that produced statistically independent outputs from natural scenes. In this work, ICA is performed on the MRRILBP features rather than directly on the input images to reduce the dimensionality. The statistically independent coefficients are computed as $U = W * CT$ and the actual basis images shown in Fig. 5. Principal component analysis (PCA) is a popular example of such methods [16]. The basis images found by PCA depend only on pairwise relationships between pixels in the image database. In a task such as face

recognition, in which important information may be contained in the high-order relationships among pixels, it seems reasonable to expect that better basis images may be found by methods sensitive to these high-order statistics. Independent component analysis (ICA), a generalization of PCA, is one such method.

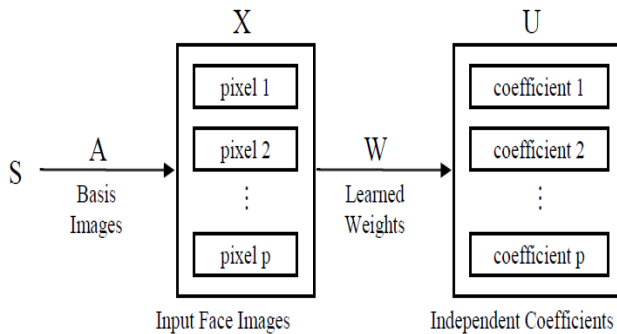


Fig. 5. Finding Statistically Independent Coefficients.

We used a version of ICA derived from the principle of optimal information transfer through sigmoidal neurons. ICA was performed on face images in the video database. ICA representations were superior to representations based on PCA for recognizing faces across high dimension and changes in pose. A classifier that combined the two ICA representations gave the best performance. To estimate Independent Components, z should have nongaussian distribution, i.e. we should maximize nongaussianity. ICA is a proper to blind source separation or classification using ICs when class id of training data is not available. Regardless of which algorithm is used to compute ICA, there are two fundamentally different ways to apply ICA to VFR. The input face images in X are considered to be a linear mixture of statistically independent basis images S combined by an unknown mixing matrix A . The ICA algorithm learns the weight matrix W , which is used to recover a set of independent basis images in the rows of U . The face images are variables and the pixel values provide observations for the variables. The source separation, therefore, is performed in face space. Projecting the input images onto the learned weight vectors produces the independent basis images. The compressed representation of a face image is a vector of coefficients used for linearly combining the independent basis images to generate the image.

Proposed Pose Invariant Video-Based Face Recognition System

In this segment, we present the complete architecture of pose invariant face recognition system in Video. The proposed Pose Invariant Video-based Face Recognition System is as shown in Fig. 6. The proposed system consists of following modules; Video to frame conversion, face detection, face pose classification, feature extraction, feature reduction and feature matching. First module is video to frame conversion, for experiment purpose, five frames per video, second module is Face detection, it uses Viola Jones face detector, segmentation based technique for cropping the face from the background. Third module is face pose classification, in which it classify the poses in yaw, pitch and roll. In fourth module, we apply MRRILBP for feature extraction. In this approach the face image is divided into a small non-overlapping blocks or regions, where a histogram of the MRRILBP for each region (block) is constructed. The similarities of two images are then computed by summing the similarity of histograms from corresponding regions. For this reason, MRRILBP features are more suitable for face recognition across pose variations. In fifth module the features are reduced by ICA. In sixth module these reduced features are applied to the Euclidean distance classifier for matching. In order to evaluate the performance of our system, we use NRC-IIT [17], Honda-UCSD [18] and ORL [19] database. In order to evaluate the performance of our system, the details of each module are presented in the following subsections.

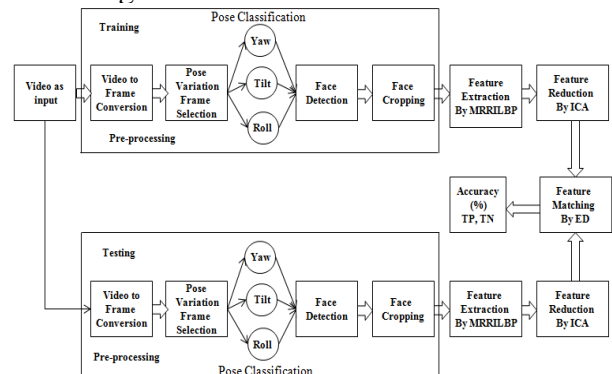


Fig. 6. Proposed Pose Invariant Video-based Face Recognition System

A. Face Detection

The process of locating the face in a given image and to separate it from the remaining background is called the face detection. Several approaches have been proposed to achieve this with different techniques [20]. Nevertheless, almost most approaches work effectively for frontal faces, where both the eyes are present in the face image. In contrast, if the performance of skin segmentation based face detection is investigated it proves to a larger degree of variation in poses. The main advantage of this method is that it can be applied to an image irrespective to the variation in poses of the image. After detecting the face next step is face cropping.

B. Pose Classification

Once the face is cropped from the input video frame/image, the pose classification of the face image is another most important module for our VFR system. It has been proved that each component contributes differently for the recognition when the pose combination of the matching pair is different. In this sense, a pose classification module could be used to decide the pose of test face images such that they are compared with the images with corresponding range of poses only, from one of the pose categories. This knowledge of pose of a test image aid in optimizing the search space and allows refining the search in particular pose category only. Thus, motivated with the face images, the poses of the input faces has been classified to one of the pose category (frontal profile, left profile and right profile). This assumption of three pose category could be used to map every input image with different poses that could alleviate the requirement of large number of samples per subject. The range of orientation angle we used to classify the pose is from 0° by up to 90°.

C. Feature Extraction by MRRILBP

After the pose classification, to represent the face in terms of feature vector to make a machine learning model there is a need of feature extraction technique. In this fragment we discuss the feature extraction through MRRILBP (Fig. 7), this approach is applied on cropped faces. Once the features have been extracted, we studied it for a large number of images with variation in poses. Similar effects are even observed on other angle metrics as the degree of orientation is

moved from frontal to left or towards right. Our main objective is to present the fusion of MRRILBP in VFR, one to make the pose classification in the existence of vagueness/ambiguity in the data set and also independent of the presence of missing values. There in, the training observations from data set are assumed to belong to a finite set of pose category and we want to learn a classifier capable of assigning a test observation to one of the three pose categories (frontal profile, left profile, right profile).

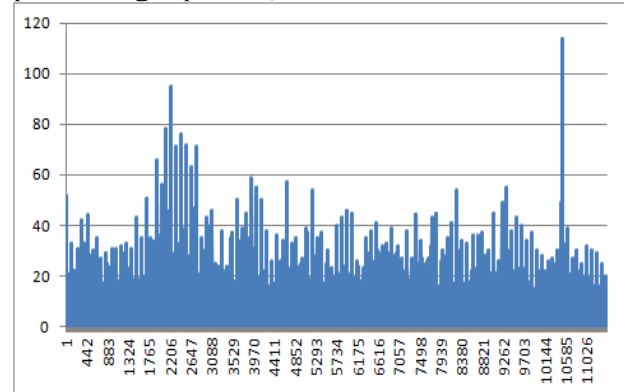


Fig. 7. MRRILBP Features of Honda-UCSD Video Database

D. Feature Reduction by Independent Component Analysis

Independent Component Analysis focuses on independent and non-Gaussian components, Higher-order statistics and Non-orthogonal transformation. A signal (X) is generated by linear mixing (A) of independent components (s) ICA is a statistical analysis method to estimate those independent components (z) and mixing rule (W).

$$W * X = U = X = A * U \tag{9}$$

$$W^{-1} = A \tag{10}$$

In Independent Component Analysis a one variable cannot be estimated from other variables, it is independent. By Central Limit Theorem, a sum of two independent random variables is more Gaussian than original variables distribution of independent components are nongaussian. To estimate Independent Components, z should have nongaussian distribution, i.e. we maximize non-gaussianity.

E. Feature Matching by Euclidean Distance All the images are easily discussed in dimensional Euclidean space, called image space. It is natural to adopt the base to form a coordinate system of the image space, where it

corresponds to an ideal point source with unit intensity location. Thus an image is converted to the grey level at that pixel, is represented as a point in the image space, and is the coordinate with respect to that face image. The origin of the image space is an image whose grey levels are zero everywhere. Although the algebra of the image space can be easily formulated. The Euclidean distance of images (i.e. the distance between their corresponding points in the image space) could not be determined until the metric coefficients of the basis are given. The metric coefficients are defined as the scalar product and the angle. Note that, if all the base vectors have the same length, then it depends completely on the angle. Euclidean distance converts images into vectors according to grey levels of each pixel and then compares intensity differences pixel by pixel. Here we compare the MRRILBP features of test data with MRRILBP features of train data using Euclidean distance from which we recognize test video data with the help of video train data. The formula to calculate Euclidean distance is given by,

$$d(x, y) = \sqrt{\sum_{i=1}^k (m_i - n_i)^2} \tag{11}$$

Where m_i = train image pixel & n_i = test image pixel

Results and Discussion

A. Algorithm

Input: Video clip $I(x, y)$ with a set of frame sequences.

Output: Recognized face $I'(x', y')$

Step 1. Pre-processing steps

- _ Video clips to frame conversion.
- _ Random selection of frames or images.
- _ Conversion from RGB to grayscale.
- _ Initialize median filter

Step 2: Face detection using vision.CascadeObjectDetector

Step 3: Face cropping from frame

Step 4: Apply MRRILBP texture classifier on cropped face $I(x, y)$

$$|H| + |L| = N$$

$$s(z) = \begin{cases} 1, & z \geq 0 \end{cases}$$

$$s(z) = \begin{cases} 1, & z < 0 \end{cases}$$

where $s(z)$ is the thresholding (step) function

Step 5: Block per image are 20 X 26, sampling points 8 per

circle and radius of circle 2, 3, 4.

Step 6: Apply ICA for feature reduction.

$$W * X = UX + A * U$$

$$W^{-1} = A$$

Step 7: Apply Euclidean distance for matching the face frame

$I'(x', y')$ from the original input frame $I(x, y)$

$$d(x, y) = \sqrt{\sum_{i=1}^k (m_i - n_i)^2}$$

B. Experimental Data

In this section, we describe the data used in our experiments.

Typically, Video-based Face Recognition simultaneously involves three steps: segmentation, tracking and recognition of the faces. However, our goal in this approach is to analyse how to represent the faces for recognition and to develop a full video-based face recognition system. Therefore, we focus our experiments on the recognition phase, assuming that the faces are well segmented and tracked. Thus, we considered three different databases, ORL, Honda-UCSD and NRC-IIT database is the most commonly used database in video-based face recognition research [21], [22], [23]. The first database, Honda-UCSD, has been collected and used by K. C. Lee et al. in their work on video-based face recognition [24]. The database contains 40 video sequences of 20 different individuals (2 videos per person). During the data collection, the individuals were asked to move their face in different combinations (speed, rotation and expression). From the video face database, we have detected and cropped the face images. The size of the extracted face images is 20X26 pixels. NRC-IIT database consists of pairs of short video clips captured by an Intel web-cam mounted on the computer monitor. It shows a wide range of pose variations. ORL is a face image database; it includes the 40 folders containing 10 images in each. The database consists of total 400 images of male and female, with 10 poses within $\pm 20^\circ$ in yaw.

C. Face Learning from Videos

In face recognition schemes both training and test data (galleries and probes) are video

sequences. The recognition consists of matching the feature representation extracted from the probe videos to those extracted from the galleries. In order to check whether a feature representation enhances face recognition performance, one should compare the results to those obtained using still-image-based techniques under the same conditions. In this approach, we have done the experiment on video databases. In this experiment, we have taken selected frames of pose variation of major angle from all videos of databases, advantage is recognition time and memory space required is less, accuracy is (ORL $\pm 20^\circ$, NRCIIT $\pm 90^\circ$, Honda-UCSD $\pm 90^\circ$) 96.9%. As shown in the TABLE I and Fig. 9, the approach of PCA [25] (89.5%), LBP [26] (69.02%), modified Log gabor + rmf [14] (76%) methods on different databases. This confirms that the dynamic information supports the face recognition process. In the some previous methods, the pose variation angle is $\pm 20^\circ$ for image face database. Xiaoying Wang et. al proposed a novel approach called coupled kernel-based enhanced discriminant analysis (CKEDA), pose variation angle is $\pm 30^\circ$. CKEDA aims to simultaneously project the features from LR non-frontal probe images and HR frontal gallery ones into a common space where discrimination property is maximized [27] and it's recognition rate is 89%. Annan Li et. al proposed a new approach for cross-pose face recognition using a regressor with a coupled bias-variance tradeoff, pose variation angle is $\pm 90^\circ$. They found that striking a coupled balance between bias and variance in regression for different poses could improve the regressor-based cross-pose face representation, i.e., the regressor can be more stable against a pose difference. With the basic idea, ridge regression and lasso regression are explored [28], its recognition rate is 73.52%. Huy Tho Ho et.al present a method for reconstructing the virtual frontal view from a given nonfrontal face image using Markov Random Fields (MRFs) and an efficient variant of the Belief Propagation (BP) algorithm [3], pose variation angle is $\pm 40^\circ$ and it's recognition rate is 91.5%. Haoxiang Li and Gang Hua approach this problem through a probabilistic elastic part model. They extract

local descriptors (e.g., LBP or SIFT) from densely sampled multi-scale image patches, pose variation angle is $\pm 90^\circ$. By augmenting each descriptor with its location, a Gaussian mixture model (GMM) is trained to capture the spatial-appearance distribution of the face parts of all face images in the training corpus, namely the probabilistic elastic part (PEP) model. Each mixture component of the GMM is confined to be a spherical Gaussian to balance the influence of the appearance and the location terms, which naturally defines a part [29], it's recognition rate is 88.04%. Zahid Mahmood, Tauseef Ali and Samee U. Khan present a comparative study of three baseline face recognition algorithms to analyse the effects of two aforementioned factors, pose variation angle is $\pm 30^\circ$. The algorithms studied include (a) the adaptive boosting (AdaBoost) with linear discriminant analysis as weak learner, (b) the principal component analysis (PCA)-based approach, and (c) the local binary pattern (LBP)-based approach. They perform an empirical study using the images with systematic pose variation and resolution from multi-pose, illumination, and expression database to explore the recognition accuracy [30], it's recognition rate is 60%. A novel method for face recognition under pose and expression variations is proposed by Ali Moeini and Hossein Moeini [31] from only a single image in the gallery, pose variation angle is $\pm 90^\circ$. A 3D Probabilistic Facial Expression Recognition Generic Elastic Model (3D PFER-GEM) is proposed to reconstruct a 3D model from real-world human face using only a single 2D frontal image with/without facial expressions. Then, a Feature Library Matrix (FLM) is generated for each subject in the gallery from all face poses by rotating the 3D reconstructed models and extracting features in the rotated face pose, it's recognition rate is 91.90%. A novel pose-invariant face recognition method is proposed by Poonam Sharma et. al by combining curvelet invariant moments with curvelet neural network, pose variation angle is $\pm 40^\circ$. First a special set of statistical coefficients using higher-order moments of curvelet are extracted as the feature vector and then the invariant features are fed into curvelet

neural networks [12], it's recognition rate is 86.6%. Ying Tai et. al introduce the orthogonal Procrustes problem (OPP) as a model to handle pose variations existed in 2D face images. OPP seeks an optimal linear transformation between two images with different poses so as to make the transformed image best fits the other one [32], pose variation angle is $\pm 45^{\circ}$ and its recognition rate is 96.8%. Xi Yin and Xiaoming Liu explores Multi-Task Learning (MTL) for face recognition. First, they propose a multi-task Convolutional Neural Network (CNN) for face recognition where identity classification is the main task and Pose, Illumination and Expression (PIE) estimations are the side tasks [33], pose variation angle is $\pm 90^{\circ}$ and its recognition rate is 91.1%. In our system, we have trained the frontal profile frames and test the frames of $\pm 90^{\circ}$ pose variations (Fig. 8). As compared to other systems, we have got the best accuracy (95% to 96.9%) for $\pm 90^{\circ}$

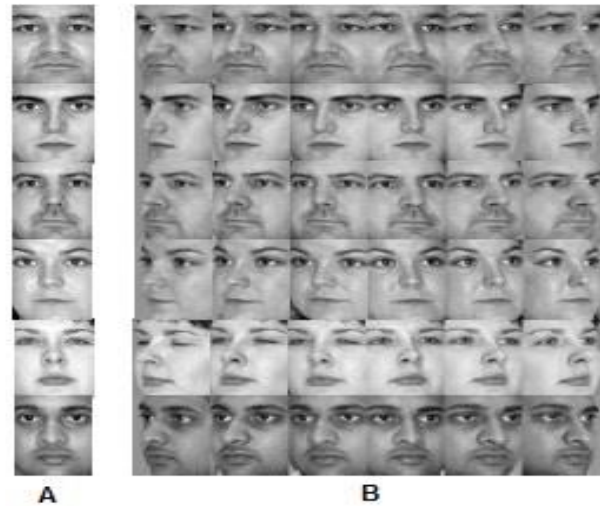


Fig. 8. A: Frontal Frames for Training Purpose. B: Non-Frontal Frames for Testing Purpose ($\pm 90^{\circ}$).

Table I - Comparison Of Recognition Rates Of Different Methods

Algorithm	Pose variation angle	Recognition rate
Modified log Gabor + rmf [14]	$\pm 20^{\circ}$	76%
PCA [25]	$\pm 20^{\circ}$	89.5%
LBP [26]	$\pm 20^{\circ}$	69.02%
CKEDA [27]	$\pm 30^{\circ}$	89.0%
Adaboost+LDA [30]	$\pm 30^{\circ}$	60%
MRF+BP [3]	$\pm 40^{\circ}$	91.5%
CNN [12]	$\pm 40^{\circ}$	86.6%
OPP [32]	$\pm 45^{\circ}$	91.7%
Stacked OPP [32]	$\pm 45^{\circ}$	96.8%
CBVT [28]	$\pm 90^{\circ}$	73.52%
LBP+GMM+PEP [29]	$\pm 90^{\circ}$	88.04%
FLM+PFER-GEM [31]	$\pm 90^{\circ}$	91.90%
P-CNN [33]	$\pm 90^{\circ}$	91.1%
MRRILBP (Proposed approach)	$\pm 90^{\circ}$	96.9%

video face database. In video database the adjacent frames have no major change in pose, so for testing purpose we have consider the selected frames with major change in pose variation. One more novelty of this system is that, we can recognise the face in minor to major pose variation angle. We propose a pose invariant VFR system based on MRRILBP for Video face databases. We apply MRRILBP for feature extraction; the motivation behind using MRRILBP is that, it is one of the good algorithms that deal with Video-based face recognition. The face image or frame is divided into a small non-overlapping blocks or regions, where a histogram of the MRRILBP for each region (block) is constructed. The similarity of two images are then computed by summing the similarity of histograms from corresponding regions. For this reason, MRRILBP features are more suitable for face recognition across pose variations. Feature reduction by ICA. These features are applied to the euclidean distance classifier for recognition.

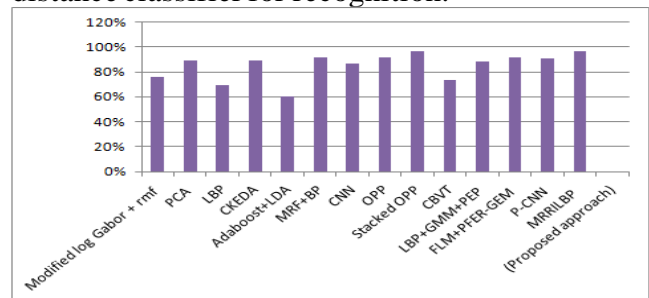


Fig. 9. % Accuracy Comparison Graph for Different Methods

Conclusion

In this paper, we have proposed a new algorithm of Multi-Radius Rotation Invariant Local Binary Pattern (MRRILBP). To train the models, we have taken frontal faces for training purpose and for testing 90° pose variation faces; still our system gives better results. For experiment purpose we have

taken the selected frames for testing (Major pose variation angle) of video database which uses both spatial and dynamic information and then apply the MRRILBP algorithm. We have performed extensive experiment on three different databases. The MRRILBP outperformed than other previous methods.

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THE ESSENCE OF GOTHIC ROMANTICISM: FIRST OF IT IS KIND IN ANN RAD CLIFFE'S "THE MYSTERIES OF UDOLPHO"

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ABSTRACT

The present research paper explores Gothic Romanticism: First of Its kind in Ann Radcliffe's "The Mysteries of Udolpho." The days of Ann Radcliffe's writings were the days when 'sentimental novels' reigned throughout Europe. It was then that Wall Pole laid the groundwork for a Gothic novel depicting horror. Ann Radcliffe goes one step further and adds sentiment. Combining this horror, a brand new Gothic romance breathed new life into the novel. With The Mysteries of Udolpho, Ann Radcliffe raised the Gothic romance to a new level and inspired many imitators. Portraying her heroine's inner life, creating a thick atmosphere of fear, and providing a gripping plot that continues to thrill readers today, The Mysteries of Udolpho is the story of orphan Emily St. Aubert, who finds herself separated from the man she loves and confined within the medieval castle of her aunt's new husband, Montoni. Inside the castle, she must cope with an unwanted suitor, Montoni's threats, and the wild imaginings and terrors that threaten to overwhelm her.

Keywords: Gothic, Romance, Horror, portraying, sentiment, medieval.

Introduction

Terrible wilderness. Miles upon miles of barrenness. The dilapidated palace in the middle. There are secret gates; Terraces; screeching of doors; How many uncut stairs; Rooms far from light. Strange Sounds from the house, from the forest. Soft songs. The lights are on and off; Disappearance of men In the midst of all this—a young woman of fearless disorientation. But new in the 18th century. Although Mary Shelley (Frankenstein) is best known as the author of horror novels in English, her predecessor was Ann Radcliffe. The first horror novel was written in 1794 by Ann Radcliffe. Before her, Horace Walpole became the first British horror novelist in 1764 with The Castle of Ontario. This is what was written after him. Usually, the first author to remember horror stories is the American Edgar Allen Poe. He is primarily known for his depiction of the terrifying atmosphere in stories. An author who made such an image of the weather before him. She did not even have Allen Poe's birth to The Mysteries of Udolpho (1794).

Allen Poe (Born in 1809.) is widely regarded as the forerunner of the superhuman

superpower, and later detective works. However, he admitted to himself - that Ann Radcliffe's novels had influenced him. Ann was born in 1764 and died in 1823. She wrote five novels during her lifetime. The last three of them are extraordinarily popular. However, there is no record of him enjoying any success. Because she, after the completion of the last novel, spent 28 years in complete anonymity. He stopped writing after the age of 31. Life was so crowded that no one even knew where it was. There were reports that she was unconscious and was in a psychiatric clinic. Another story is that there was no such thing, that her married life was comfortable, that she had no children and that she felt comfortable with her husband William Radcliffe and lived comfortably in his friendship. However, her husband, a journalist, spent much time in the office, and she did not expect that his writings would make history in European literature and be praised by great writers. Many modern biographers who wanted to know about her could not find much information. Her novels The Castles of Athlin and Dunbayne (1789), A Sicilian Romance (1790) were published posthumously. However, she is best known for her three surviving novels: The Romance of the

Forest (1791), *The Mysteries of Udolpho* (1794), and *The Italian* (1797).

Ann Radcliffe was not the only writer who fell into the trap. She was acquitted by British author Walter Scott, Russian author Fyodor Dostoevsky, French authors Honoré de Balzac, Victor Hugo, and Alexander Dumas. Critics say her writing style is influential in Dostoevsky's novels. Dostoevsky said: I used to spend the long winter hours before bed listening (for I could not yet read), agape with ecstasy and terror, as my parents read aloud to me from the novels of Ann Radcliffe - *Winter Notes on Summer Impressions*, 1863). The author says that she was influenced by the depiction of clumsy human mentalities and atmospheres in her novels.

Nevertheless, there is also the author who parodied Ann Radcliffe. Although younger than Radcliffe, she has a contemporary author, Jane Austen. Jane Austen made a parody of Radcliffe's novels in her *Northanger Abbey* novel that never goes even an inch to reality.

The Mysteries of Udolpho: A Romance

The 481-page novel was written in 1794, and the story was set in 1584. Although the author is British, the story takes place in France and Italy. The main plot is the jungle on the border of southern France and Italy. The protagonist is Emily Saint Aubert from France. Emily's mother dies early in the story. Emily's father takes her to the countryside to get out of that ordeal. Emily falls in love with a young man named Valancourt, whom she meets along the way. He also responds. Her father enjoys noticing this. Valancourt, who is very gentle and philanthropic, is also respected. Gradually the father's health deteriorated, and he too died. The mystery begins when the father is on his deathbed in a story that goes on as usual. In those last days, Emily becomes suspicious of her father's behavior. In the locket around his neck, he notices another woman besides the statue of his mother. The father does not say who the woman is. Says not to ask. It hurts Emily.

After him, the father tells his sister, Madame Cheron, to go home, as the daughter does not live alone. To that aunt, they had no access. Especially her husband, Count Manton, has no intimacy with this family.

However, nothing else or Emily will go there. From there, the terrible conditions in her life begin. Aunt love is not there anyway. The deadliest person is her husband, Manton. Manton, who married the widow for her property, held his wife, Emily, hostage in the palace of Udolpho in Italy and tortured his wife to write the property in his name. He knew that if she died without writing a bow, the whole thing would belong to Emily. So he puts pressure on her to write a bow. Emily first marries her friend Morano and wants to keep the two under his control. However, Emily, who is already in love with, refuses the marriage, even though she has not told her in-laws about it. The myth constantly harasses Morano that she is her own. Meanwhile, Emily is lucky, and Manton finds out that Morano does not have as much property as he expected, evoking the "friend" from the house.

However, in the meanwhile, her sick aunt dies due to mental and physical abuse by her husband. He drops her in a room while she is sick. Even there, he shows her the wounds to sign until the last moment. She was almost unconscious and did not even sign. Emily, who had been serving her aunt in her last days and causing her to die peacefully, at one point told her aunt that she had no illusions about the property and that she would give it to her aunt if she wanted to give it to her husband. However, the aunt disagrees. Eventually, the property survives without her husband writing the name. She shows no love for her niece for the rest of her life and only does so at the time of her death. From there, Emily's life becomes even more miserable. As if harassing his wife, Manton forces her to write his name on the property as well. Despite the fear that he might die at his hands, he very boldly rejects him. In this case, many wars take place between them.

"You may find, perhaps, Signor," said Emily, with mild dignity, 'that the strength of my mind is equal to the justice of my cause; and that I can endure with fortitude when it is in resistance of oppression.'"

'You speak like a heroine,' said Montoni contemptuously; "We shall see whether you can suffer like one."

He goes to great lengths to terrorize her as he befits that threat. However, Emily is unyielding; Not afraid. Thus her life goes on

like a hundred-year-old every day. How to escape him with the help of workers. Hides in a church. Through the nuns there, the stories of the area, the politics of his aunt and uncle's wedding, the history of the Udolpho building where he was held captive are all known.

There, the question of whom the woman in the father's locket is answered. The story comes out while trying to figure out who Udolpho is. The toy in Father's locket is his older sister, Marchioness de Villeroi. Although this aunt loves another man, he is not worthy of their status, and Emily's grandfather forcibly gives her to Udolpho and marries her. She is inspired by her husband, Udolpho, who kills his girlfriend, Laurentini. That means Laurentini is the former owner of the building where she is now being held, hostage. Emily is disturbed by the grief of her aunt, who died prematurely at the hands of her husband. The story comes as a considerable shock to Emily, who has fallen out of favor. Nun Agnes, who is very friendly with him there, is shocked to learn that Laurentini is the one who wanted to die, that is, the one who killed his aunt. She changes her name, disguises herself, and settles in the church with remorse for destroying a Samsara. This is the 'superhuman female figure' who wanders in the forest singing songs, not sleeping at night with guilt every day.

With the help of the servants, Emily finally, after many tragic events, arrives at her boyfriend, Valencourt. It is learned that he was jailed for cheating on his brother and returned home. The story ends with Emily reaching out to him and gradually taking over her property from her aunt's husband. She does not try to get rid of her uncle on her own, but the crimes he has committed catch him off guard. Although Mantoni looks respectable upstairs, his dark life, his wife, Emily, and even the servants in the house already know about dark businesses. As the robber Mantoni expands and begins to plunder the homes of the wealthy and the well-to-do in the community and fill his coffers, the French police become suspicious of him. When Mantoni goes to jail for murdering one of his partners in these atrocities, the house he left behind and his aunt's property are returned to Emily. Annette, the maid who married Valencourt and saved

him on all occasions, also keeps her boyfriend Ludwig with her and lives comfortably.

"Gothic novel features Dilapidated spacious building Unexpected, irrational events.

Omens, mysteries, illusory scenes Heroines stuck in trouble Supernatural antics, unexplained sounds, indefinable fears Sensitive-minded heroines".

Almost all of these are in this novel. Emily is a young woman with a compassionate heart by nature. In addition, the tragedy of losing loved ones at every step (the death of parents, the departure of Valencourt), the current deadly situation in the Udolpho building, the illness of his aunt, the cruelty of Uncle Mantoni, the harassment of Morano, the state of being suffocated in the harsh stone building from the beautiful life we encounter with nature. Damage. They temporarily confuse her. Even if she does not compromise on her duty (determination not to sign property injunctions), grief will not leave her. Radcliffe portrays the physical environment and the emotional sensation it creates in Emily.

In this state, she began to be intimidated by various noises coming from the walls, melodies heard from a distance, and people running with torches. Even though many people still believe that the untimely death of demons is demon-possessed, such things often appear in the novel. The author shows great talent in depicting this atmosphere of horror.

About 50 percent of the novel is a story, but only about half. From the beginning of the novel, the heroine and the heroine's father have a great love for nature, and their journey revolves around hills, on endless roads, among flowers and birds. The description of nature that begins there is as sweet as fictional poetry. Starting from there, nature gradually undergoes some harassment and terror. It seems to Emily that an assailant is hiding behind every tree to kill her, starting from mountain to mountain and growing higher and higher. ('When she saw a mountain peak and insisted that the mountain was over, she was shocked to realize that the peak was the foundation of another mountain.') At every turn in the palace captured by her uncle, she is seen coming to harm herself. Eventually, how the person guarding the outside of the estate walks would

also be dangerous to Emily. Even outside, it seems that there is a danger lurking behind every nook and cranny. In one scene, the maid is disturbed as if she is on the verge of death when a dead woman covers herself.

Radcliffe refers to several poems in this novel. Some are already famous poets such as Milton, Shakespeare, Gray; Emily herself made some. Emily's tenderness makes her a good poet. While traveling with her father, Emily is a lover who receives a poem or a poem with her every time she gets off the horse and rests. It is this sentimentality that leads to the subsequent anxiety in her mind. The author says this in the words of his father, which is very crucial to the story.

Above all, my dear Emily, 'he said,' "do not indulge in the pride of good feeling, the romantic error of amiable minds. Those who possess sensibility ought to be taught that it is a dangerous quality, continuously extracting the excess of misery, or delight, from every surrounding circumstance. Moreover, since, in our passage through this world, painful circumstances occur more frequently than pleasing ones, and since our sense of evil is, I fear, more acute than our sense of good, we become the victims of our feelings, unless we can in some degree command them."

A sensitive mind, a responsive mind, is what man needs, but his father warns her that we will devour ourselves if we do not control them. Because of this sensitivity, Emily could not bear the orgasm in the horrible scenes. She encountered afterward and was as frightened as if the image had become a reality.

The uniqueness of the novel is that the author concludes that it is all speculation while depicting the atmosphere of the Gothic novel. Every scene that the protagonist Emily 'sees' gets explanations in the novel. As Emily met each of the new men, she realized that for whatever reason she had walked there that night, that she had run with the lights, that any nun had returned to the woods every night singing songs to forget the sinful deeds she had done, and that she had not seen any event supernatural involvement that she feared, but mere coincidence. Perceives that supernatural beings do not exist and are not flesh and blood.

The author also refers to the psychological analysis that motivates us to see our fears,

suspicions, and non-existent. The author's way of thinking is made clear to us that the vision and hearing of supernatural powers are merely reflections of the eccentricities within us. When writing this novel, there were no psychological theories that extreme emotions could turn into hallucinations. Before her, Horace Walpole (his famous novel *The Castle of Otranto*), who wrote the first horror novel in English, wrote as if the involvement of supernatural forces could exist in human life. However, Radcliffe says it is a reflection of our emotions, a testament to her intelligence. This is the main difference between the two novels. Walpole acknowledging the existence of supernatural forces, Radcliffe concludes that they are our delusions.

On the claim that there are no such supernatural forces and our imagination, Kaboul continues to be hailed by writers as sensational writers in the 20th and 21st centuries. She was the first author to play suspense in a sentimental novel. In this novel, most mental disabilities and physical illnesses are love failure, separation, or separation. That is why it is basically a sentimental novel. However, because of On Radcliffe's talent for incorporating suspense and thrill, it became an extraordinary work, choosing Gothic features as its writing style.

Some mistakes

The author seems to have made some minor mistakes in this novel. The novel was written in the last decade of the 18th century. However, a description of France and Italy's climate, palaces, and monarchies, as she describes it, suggests that the story dates back to the second half of the 16th century (1584, according to literary research). In the novel, she quotes Shakespeare discussing Macbeth, Julius Caesar, and Milton poetry as Emily and their father discuss. Caesar's first appearance was in 1599, and Macbeth's first appearance in 1603. Milton was born in 1608. So she seems to have forgotten her storyline in mentioning the events that took place after her storyline. Also, the characters in it are drinking coffee. Coffee did not enter Europe until 1580. (Coffee reached Europe in the 17th century.)

In both cases, the author seems to have been somewhat confused in his writing and his

storytelling. They are probably a factor as to why they are doing so poorly and why they were doing so poorly in the 18th century. However, a closer look at the story reveals that it must have been in the 16th century. These are minor mistakes in the nearly 500-page novel, not to mention that they are not a hindrance to writing repeatedly.

Anti-Catholic

In both of his novels (*The Italian*, *The Mysteries of Udolpho*), which are based on the story of Catholic Italy, Ann Radcliffe is accused of writing in a pro-English, anti-Anglican way, denigrating the Catholic religion. There is a clear indication of the criminal nature of Catholic theologians in the portrayal of the conduct of the clergy in *The Italian* novel and the portrayal of Nun Ones in *The Mysteries of Udolpho*. She describes the confession in the Catholic Church as a "control mechanism" that the clergy simply exert over

the devotees. These naturally angered the Catholics. However, this did not seem objectionable to the writers. They praised them for her writing skills. What attracted most of the later writers and critics was her style and nature.

Conclusion

Critics have even argued that she is a poet or a text writer. Her descriptions and poetry captivate us every step of the way as we read *The Mysteries of Wolf*. Surprisingly, Ann Radcliffe, who never set foot outside the home, never visited France or Italy at birth, but the long forests, trees, birds, and skyscrapers on the borders of France and Italy. Perhaps even critics agreed that he had seen the Italian and French paintings of his time. Several sayings can be quoted in *On Radcliffe's Mysteries of Udolpho*, who wrote an extraordinary novel, combining sentimental material with gothic horror, with an incredible imagination on the whole.

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THE IMPACT OF GLOBALIZATION AND INTERNATIONAL INTEGRATION TO BECOME A GLOBAL CITIZENSHIP IN THE SOUTHEAST – FROM THE PRACTICE OF HO CHI MINH CITY, VIETNAM

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ABSTRACT

In the context of globalization and international integration, especially the development trend of industrial evolution 4.0 is strongly and deeply influence and impact on different aspects and field in social life. It attracts every country to a "playground" called "Integration". With its vastness and complexity, globalization firmly impacts on every fields of social life, to every country, nation, especially to train global citizenship so they can satisfy the requirements of globalization and international integration nowadays. For the Southeast in general, and Ho Chi Minh City in particular, globalization and international integration has brought chances, opportunities, at the same time, there are also some real challenges and risks in the training of global citizens. Therefore, the urgent issue at the moment is the need of further researching, analyzing in order to have an objective and comprehensive in visions and assessments to use full potential of chances and to control risks in globalization and integration international process for the training of global citizens to meet the presently socio-economic development requirements has urgent practical significance.

Keywords: opportunities, challenges, global citizens, globalization, integration international, the Southeast, Ho Chi Minh City, Vietnam

Introduction

The Southeast is an important dynamic economic region of Vietnam, and is Vietnam's economic "gateway" to the world. The Southeast provinces have made many contributions to the total value of industrial production, export turnover and the national budget. Specifically, this sector currently contributes 38% of the country's GDP, 48% of export turnover, nearly 41% of the state budget and accounts for about 47% of investment projects, more than 43% of foreign investment capital of the whole country. In the region, a satellite urban network has been formed, following an open and airy space, linked to each other through axes and belts under construction. The Southeast region is also a major international integration center of the country, with Cai Mep – Thi Vai international transshipment port, Tan Son Nhat international airport, Long Thanh international airport just started construction.

Economy of the Southeast, especially Ho Chi Minh City is the center of Economic, Culture, Science – Technology, Education – Training. It has an important position in the country and It is the most significant contributor into the economy of the region in the South. Ho Chi Minh city takes up 6.3% of the country's land area, and contains 9.1% of

the population of Vietnam. The city currently contributes over 22% of the national economy, 27% of the total national budget revenue, labor productivity of the city is 2.6 times as the average labor productivity of the whole country. GRDP per capita has increased continuously over the years and the average is 2.4 times higher than the whole country [1].

Along with the country, Ho Chi Minh City is speeding up the globalization and international integration's process to the following goals: "Building smart city, with rapid and sustainable development, maintaining the leading economic role of the country; accelerating culture development, progressing, social justice, improving welfare, building happy families; One for all and all for one, for the happiness of the People; the city is the economic, financial, commercial, science - technology and cultural center of Southeast Asia"[1].

To accomplish the goals and strategies mentioned above, especially the process of globalization and international integration in Ho Chi Minh city, it needs to use full potential of the basic advantageous to receive opportunities to develop education, training global citizens for the city's socio-economic development; However, it is also creating many challenges for the training of global citizens in Ho Chi Minh city nowadays.

This article focuses on analyzing and clarifying the achieved results and limitations of the process of globalization and international integration for the training of global citizens in Ho Chi Minh City. From there, it serves as a scientific basis for leaders and managers to develop programs and plans to take advantage of opportunities and overcome challenges of globalization and international integration to develop education and training. global citizens to meet the socio-economic development requirements of the city in particular, the Southeast, and Vietnam in general.

Literature Review

Research on global citizenship. Many organizations claim a mission to educate global citizens as results of internationalization. Many countries have established "centers for global citizenship" or have global citizenship education programs. For example, the Association of American Colleges and Universities has funded a range of related programs: strengthening American democracy, responsible global citizenship, and developing personal and social responsibility in multicultural context. The Salzburg Seminar's International Study Program to examine the concept of global citizenship and integrate it into higher education. The Talloires Network international alliance was established in 2005 with 202 organizations in 58 countries to "strengthen citizenship and social responsibility in higher education", with a focus on "preparing students make a positive contribution to local, national and global communities"... [2]

Global citizenship training has attracted domestic and foreign scholars who are interested in research from many different perspectives. Theo *Global Citizenship*: There is a great deal of debate and discussion around this question, as there is around the whole concept of globalisation. A useful working definition, however, is offered by Oxfam: A Global Citizen is someone who:

- is aware of the wider world and has a sense of their
- own role as a world citizen
- respects and values diversity
- has an understanding of how the world works

- is outraged by social injustice
- participates in the community at a range of levels, from the local to the global
- is willing to act to make the world a more equitable and sustainable place
- takes responsibility for their actions. [3]

To be effective Global Citizens, young people need to be flexible, creative and proactive. They need to be able to solve problems, make decisions, think critically, communicate ideas effectively and work well within teams and groups. These skills and attributes are increasingly recognised as being essential to succeed in other areas of 21st century life too, including many workplaces. These skills and qualities cannot be developed without the use of active learning methods through which pupils learn by doing and by collaborating with others [3].

With the interconnected and interdependent nature of our world, the global is not "out there"; it is part of our everyday lives, as we are linked to others on every continent: (i) socially and culturally through the media and telecommunications, and through travel and migration; (ii) economically through trade; (iii) environmentally through sharing one planet; (iv) politically through international relations and systems of regulation.

The opportunities our fast-changing "globalized" world offers young people are enormous. But so too are the challenges. Young people are entitled to an education that equips them with the knowledge, skills and values they need in order to embrace the opportunities and challenges they encounter, and to create the kind of world that they want to live in. An education that supports their development as Global Citizens. The active, participatory methods of Education for Global Citizenship and Sustainable Development help young people to learn how decisions made by people in other parts of the world affect our lives, just as our decisions affect the lives of others. Education for Global Citizenship and Sustainable Development also promotes pupil participation in the learning process and in decision-making for the following reasons: (i) Everything done in school sends out messages, so we need to exemplify the values we wish to promote. If we wish to affirm beliefs about the equality of all human beings and the

importance of treating everyone fairly and with respect, we need to ensure that learning processes, and relationships between pupils and teachers, reflect and reinforce these values; (ii) Research shows that in more democratic schools pupils feel more in control of their learning, and the quality of teaching, learning and behaviour is better; (iii) The UN Convention on the Rights of the Child affirms the right of children to have their opinions taken into account on matters that affect them [3].

Besides, a number of other authors also proposed the renewal of training methods to meet the needs of learners according to the global citizenship model in works: Charles C. Bonwell and James A. Eison with *Active works Learning* Charles, James, 1991); David E. McNabb with *The publication Research Methods for Political Science* (David, 2009); Knottnerus, J. David and Guan, Jian with research in *Analytical Strategies, Developments and Assumptions* (Knottnerus, David & Guan, Jian, 1997); Tobias Andersson with *Rationality in educational choice - A study on decision-making and risk-taking in academic settings* (Tobias, 2016); David R. Shans, Riachard J. Suney and John D. McCarthy with the article *A retest of Probability and reasonable choice*, Journal of behavioral decision making...[4].

Research on globalization and international integration. Many authors with many research works delve deeply into the issue of globalization and find out its causes and manifestations in social life. *Flat World – A Brief History of the World in the 21st Century*, by Thomas L. Friedman (translated by Nguyen Quang A, Nguyen Hong Quang, Vu Duy Thanh, La Viet Ha, Le Hong Van, Ha Thi Thanh Huyen). The content of the book includes the following parts: the process of flattening the world, the author presents factors that flatten the world; America and the flat world; developed countries and the world is flat; companies and the world is flat; geopolitics and the flat world; "Globalization Operation" (Joseph E. Stiglitz, Young Publishing House, Ho Chi Minh City, 2008); "Where is China's exit from economic globalization" (Luu Luc, Publishing House. Social Sciences, Hanoi, 2002); "Cultural

globalization" (Dominique Wolton, Publishing House: The World, Hanoi, 2006); "People, peoples and cultures" globalization: Living together in the age of globalization" (George F. McLean, Pham Minh Hac (Vietnamese version editor), publishing House: National Politics, Hanoi, 2007); "Economic globalization and national culture building" (Li Zonggui, Document for research, No.: TN.2002-6, Institute of Social Science Information, Hanoi, 2002); "The Global and Modernized World" (V.G. Fedotova, Document for research, No.: TN.2002-3, Institute of Social Science Information, Hanoi, 2002); "As globalization accelerates brain drain" (Cristina Phomme, Research Materials, No.: TN.2002-46, Institute of Faculty Information social studies, Hanoi, 2002); "Twelve answers from Singapore to the challenges of globalization" (Mark Hong, Research Papers, No. TN.2002-35, Institute of Social Science Information, Hanoi, 2002); "Asia in the storm of globalization: For an international regulation" (Wolf M., Finance). Data for research, No.: TN.99-104, Institute of Social Science Information, Hanoi, 1999); "The Threat of Globalization" (Edward S. Herman, Documentary Service) Research Service, No.: TN.2000-22, Institute of Social Science Information, Hanoi, 2000).

Most of the researches and programs innovate training methods to train global citizens to meet the requirements of socio-economic development. However, there is no research on the impact of globalization and international integration to become a global citizenship in the southeast, from the practice of Ho Chi Minh City, Vietnam

Methods/Materials

Globalization derives from increasingly development of socialized production forces along with the impact of the science-technology revolution on the economy, culture, society and the environment between countries and regions on the international scale. When it comes to globalization, Karl Marx and Friedrich Engels once said: "The need of a constantly expanding market for its products chases the bourgeoisie over the entire surface of the globe. It must nestle everywhere, settle everywhere, establish connexions everywhere"

[5]. Along with the globalization, the development of production forces, market extension, the relationships also gradually extend beyond the national boundaries, forming regional and international relationships. Hence, when talking about globalization, people will think about international integration. In this background, nations cannot be the outsiders of the "game" but "force" to integrate internationally so as not to fall further behind. However, globalization and international integration are the conflict process, contain both positive and negative sides, also opportunities and challenges for countries, especially small and medium ones. Acknowledging its impact, the Party and Vietnam Government always work out policies and solutions suitable for each phase to improve the efficiency of globalization, promoting positive aspects, preventing and minimizing negative effects to develop the process; maximize the power, maximizing internal resources, exploiting external forces, turning external forces into internal ones, turning challenges into opportunities for national renewal and development with the aim of "ensuring the benefits of the nation, based on the basis of the basic principles of the Charter of the United Nations, international law, equality and mutual benefit..." [6].

The concept of "global citizenship" originates from ancient Greece (about a thousand years ago), when discussing the king's rule over the city's subjects Roman city, Greek city, ... When asked where from, the ancient philosopher Diogenes answered "I am a citizen of the world". The British revolutionary T. Penno, who lived in America in the 18th century wrote "My country is the world. My compatriots are humanity." A. Einstein also emphasized the consciousness of citizens towards global issues. "Regionalism is a childish disease. It is the measles of mankind". These prominent people mean openness, a far-sighted vision for a universal world where borders between nations are blurred.

Today, the concept of global citizenship has a new meaning and is now widely used in education, especially higher education. As defined by UNESCO, "Global citizenship refers to a sense of belonging to a broad and shared human community that emphasizes

interdependence and political, economic, and social interdependence society, and culture between local, national and global" [7]; and think: global citizenship is always towards an open community and humanity general, which emphasizes political, social, cultural and connections between local, national and global: Respect for human values, regardless of race, gender, age, religion religion and political views; respect for diversity and multi-dimensional perspectives; appreciate the natural world, the life of all things; responsible for solving global challenges in different ways; think globally in eliminating inequality and injustice [8].

According to Oxfam Education: A global citizen is someone who is aware of and understands the wider world – and their place in it. They take an active role in their community and work with others to make our planet more peaceful, sustainable and fairer [9], and assume that a global citizen is someone who: perception of the world at large and conscious of one's role as a company world people; respect the diversity of values in cultures; have an understanding of how the world works; have a passion for solving social justice issues; engage in the community on many levels, from local to global; willing to act with others to make the world fair and more sustainable - Take responsibility for your actions [9].

With the terms "Global citizens, world citizens" has appeared in the early 3rd millennium, but does not have a complete or officially recognized definition yet. According Global Citizenship: A Global Citizen is someone who is aware of the wider world and has a sense of their own role as a world citizen; respects and values diversity; has an understanding of how the world works; is outraged by social injustice participates in the community at a range of levels, from the local to the global; is willing to act to make the world a more equitable and sustainable place; takes responsibility for their actions [3].

From the above mentioned point of view, it can be acknowledged as: global citizen must be initiative with themselves and with the society. They are the people who have the ability to act cooperatively, responsibility, and creatively to solve common problems for the community,

contributing to a better locality, country, world-wide development; communication, the adaption in different culture environments, multi-culturalism environment; respect human rights, diversity; appreciate, promote the ethnic, country's culture values, have the consciousness to learn the culture quintessence of different ethnics and countries.

To become global citizens, they cannot help but to gain knowledge and training. Because, Education and training are direct activities affect the improvement of intelligence, understanding and using technology, technical knowledge for human production. At the same times, this is the best way for people to approach new information, updating, enrich the knowledge resource and the ability to be creative. Besides, it also helps people promote their internal resources – intellectual of the nation, in which the intellectual content in labor made by education and training are the factors that make people become the special force in production, basic, infinite force to develop knowledge economy.

Because of this importance, the credo of country's construction in the period of transition to socialism (additions, developed in 2011): "Developing education and training as well as science and technology is a primary national policy and a motive force for socio-economic development; investment in education and training, science and technology is investment in development. Environmental protection is a vital issue of mankind, a criterion and content of sustainable development and a factor to ensure the health and quality life of people. To develop education and training, aiming to raise the people's intellectual level, develop human resources and foster talents, contributing an important part to building the Vietnamese culture and people. To comprehensively and vigorously renovate education and training in response to the development requirements of the society; to raise the quality of education and training towards standardization, modernization and socialization to actively serve national construction and defense. To build a learning society, creating opportunities and conditions for all citizens to study throughout their lives" [10]. The Party's view on building a fully developed human being is

deeply expressed in the XIII Congress Document in which affirms: making Vietnamese becomes fully developed must become the development strategy, is one of the general tasks for national development; to associate the goals of building, promoting culture with human development; affirming the matter of developing human as four of the six tasks of the XIII Congress term; to build a comprehensive development of Vietnamese in association with the industrialization and modernization of the country[11].

The Education Law in 2019 when it comes to educational objectives, also affirms: education aims to comprehensively develop Vietnamese people with ethnics, knowledge, culture, health, aesthetics and profession; have quality, capacity and civic consciousness; have patriotism, national spirit, loyalty to the ideal of national independence and socialism; promoting the potential, the ability to be creative of each individual; improve people's knowledge, develop human resources, foster talents, to meet the requirements of building, protecting the nation and international integration.

The views on civic education are also reflected in the determination of the goal of renewing the curriculum, textbooks, general education "to develop Vietnamese comprehensively in terms of morality, intellect, physic, and beauty to become a "global citizens" [12] and concretize the main qualities of patriotism, compassion, hard work, honesty, responsibility and comprehensive development of competencies, such as autonomy and self-learning ability, communication and cooperation skills, problem solving skills and creativity; specific competencies, such as linguistic competence, computational capacity, scientific capacity, technological capacity, IT ability, aesthetic capacity, physical ability.

That is the right, consistent view and line of the Party and House of Vietnam to train global citizens to meet the requirements of the process of globalization and international integration, at the same time, it is the basis for localities in the country to plan strategies to train global citizens to meet the requirements of socio-economic development.

This study often uses the method of document analysis. The analysis is the

published documents related to global citizenship training by international organizations and the Government of Vietnam to make some comments on the recommendations. In that context, it is proposed that the Government of Vietnam identify a number of directions to make good use of the opportunities of globalization and international integration to train global citizens to meet development requirements. Socio-economic development in Ho Chi Minh City with the support of objective data from official statistical and published sources.

At the same time, in this study, the author approaches the interdisciplinary and multidisciplinary direction; approach from the systematic point of view, the historical point of view. Regarding the research method, the author combines the research methods of dialectical materialism and historical materialism, sociology, including the method of collecting, analyzing and synthesizing documents; survey method; statistical methods; quick assessment method.

Results

The article studies the results achieved and limits the impact of globalization and international integration on global citizenship training in the Southeast, especially from practice in Ho Chi Minh City, Vietnam. Research results can be used to make policy recommendations of the Government and leaders in the Southeast, Vietnam in developing plans and strategies to take advantage of opportunities and overcome challenges. knowledge of the process of globalization and international integration to train global citizens to meet the socio-economic development requirements of Ho Chi Minh City in particular, the Southeast region of Vietnam in general.

Novelty of the article: From analyzing the achieved results and limitations of globalization and international integration for the training of global citizens in Ho Chi Minh City, the article proposes solutions to enhance the impact of globalization and international integration on global citizenship training in Ho Chi Minh City.

Discussion

Institutionalizing the view of the Vietnamese state, in the process of socio-economic development, Ho Chi Minh City identifies the following goals: "Complete the education system towards intelligence, open education, lifelong learning and building a learning society, and build and develop the model of "Advanced and modernized" schools according to the trend of integration" [1].

In the process of globalization and international integration, Ho Chi Minh City has a high and stable economic growth rate. It always spends more than 25% of its budget capital for recurrent and investment in new construction and repairing, renovating, and upgrading schools, improve the quality of the teaching staff to improve the quality of human resources. Ho Chi Minh City is one of the leading city in the country in education and training, with the number of students enrolled and graduated from college the following year higher than the previous year, contributing to increasing the rate of trained workers from 40% (2005) to 85% (in 2019), including workers are working with primary and technical qualifications are 14.6%; workers who are working with intermediate professional skills 28.44%; workers who are working with professional skills and technical skills of colleges 19, 03%; 21,72% (the Center of Forecasting Manpower Needs and Labor Market Information Ho Chi Minh City in 2020) satisfy the demand for human resources, as well as training global citizens according to the city and the southern key economic region's target. The rate of trained workers working in the fields of high-level technology and high-level industries services and main point services of the city will reach 87% Enrollment and training activities of educational institutions have flourished, training results are accepted by the market with an employment rate of over 85% [1], step by step provide the City and the world with a competent, professionally and disciplined workforce for workers who meet the production requirements of society.

The goal that Ho Chi Minh City has achieved in the process of globalization and international integration shows that the city has made good use of its inherent potential as well

as made good use of opportunities of the international integration process, developing education and training to train global citizens to satisfy the requirements of international integration, but also creating many challenges for the development of education and training of global citizens in Ho Chi Minh City nowadays.

Achievements of globalization and international integration to train global citizens in Ho Chi Minh City

Ho Chi Minh city is a special urban area, a major center of economic, culture, education and training, science and technology, the head of engagements and international integration, the leader, attracting and spreading to the southern key economic region, which has an important political position of the country. This makes the city's workforce abundant, contributing to the globalization process, as well as the socio-economic development process in the city.

Firstly, globalization and international integration contribute to modernizing education towards the training of global citizens in Ho Chi Minh City. The process of globalization and international integration make the world market increasingly large in scale and complete in terms of the operating mechanism. We have the conditions to learn, absorb, exchange, improve management qualifications, experiences, worldwide resources, especially knowledge to develop the digital economy, participate in rotation labor between countries, as well as the global supply chains. Thereby, we have the opportunity to expand production, create stabilize jobs and improve people's lives, participate in the process of international cooperation and the division of labor. By 2020, the rate of workers that have been trained is 85.2%, the urban unemployment rate decrease to 3.7% [1].

The process of globalization and international integration not only contributes to removing barriers between ethnic countries in economic development but also opens up favorable conditions for the development of education and training to create global citizens to serve the process of world economic development; At the same time, each country can replenishment and overcome the

weaknesses of the national economy in order to build and develop global citizens in Ho Chi Minh City. Globalization and international integration have also placed the education of Ho Chi Minh City in the general picture of the education of other countries around the world, thereby helping the city's education realize where it stands in the international, or at any rate, can absorb the experience of developed education, create a necessary breakthrough to break the old and outdated stereotypes, from educational philosophy, program content to the teaching method, educational management organization. These advanced experiences will pave the way for modernizing education and training in the city, connecting the city's education and training to the world, expanding the vision and value, cross the national and ethnic borders, moves to international standards, to train qualified global citizens to serve the globalization process in the city in particular and the country in general.

Second, globalization and international integration create favorable conditions for the tendency of peace, cooperation, development, stability to develop Ho Chi Minh City, thereby creating beneficial conditions for the development of Ho Chi Minh City. In recent years, humanity has been witnessing complicated, potentially unpredictable, unpredictable developments. The tensions, religious conflicts, ethnic groups, separatism, local war, territorial disputes, political riots, interference, overthrow, terrorism will still be fierce; Non-traditional security threats, high-tech crimes in the fields of finance - currency, electricity - telecommunications, biology, the environment... tend to increase with nature complex. However, the political landscape of the polarity world is becoming clearer; New points appeared in international relations such as: besides the big countries playing the leading role, the small countries have increasingly risen to assert their positions; along with the political and military factors, the economic factor has become clear and increasingly important; the gathering of political forces is intertwined, loosed, even temporary based on interests. In which, countries both manipulate, take advantages and restrain each other. Moreover, the world is facing global problems: poverty, epidemics,

resource depletion, environmental pollution, terrorism... It requires working together for the survival of mankind. Therefore, in the relations between countries, although there are still many contradictions, the outstanding feature will be a diversified world, the democratization trend in international relations continues to develop. Peace, cooperation, and development still show the common trend of humanity today. In that context, our Party continues to affirm the motto: "Diversifying and multilateralism foreign relations; proactively and actively integrating into the world; being friends, reliable partners, and members. responsibility of the international community" [13]. It is also a great direction for Ho Chi Minh City to take advantage to establish an education development policy to train global citizens suitable for international practices, and to conduct administrative reforms to create positive motivation breakthrough in strategy, bringing the education and training in Ho Chi Minh City to a new stage in the process of globalization and international integration.

Third, globalization and international integration also open up great opportunities for education and training in Ho Chi Minh City to approach and learn about the objectives, content, programs, educational methods, modern and advanced education management opens up the development direction for learners to study and research in the country, without having to study abroad and still can learn modern knowledge with high economic efficiency. Typically, Le Hong Phong High School for the Gifted has pioneered in bringing the content of artificial intelligence to high school students. Contents of the curriculum include Math foundation knowledge in AI, mathematical modeling skills for real-world problems, high-level programming skills, creative skills in using AI as an intelligence tool for users, helping to unleash labor power and creativity in different professions. Teachers participating in this program are experts from organizations in the field of artificial intelligence. To meet the requirements of innovation and international education integration, the Department of Education and Training of Ho Chi Minh City has actively promoted innovative solutions in teaching and learning organization, managing, and testing,

evaluating, and preparing conditions for the implementation of the new general education program. Thanks to the innovation of education management, the Department of Education and Training of Ho Chi Minh City has created conditions for schools and teachers to be proactive and creative in building teaching-learning plans to integrated and interdisciplinary topics, increased practice, practical experience... The implementation of innovative teaching and learning activities in a positive and creative direction is the solution to reduce program load, overcome the overloaded situation, heavy in theory - not too much in practice... Thanks to that, employees are allowed to expand their understanding, gradually overcome the way of thinking and working methods according to their feelings, visuals, and experiences small farm production, train them to be familiar with the sense and scientific labor method, industrial style, step by step foster the workers the necessary qualities and competencies to become global citizens.

Fourth, globalization also creates opportunities and conditions for the people of Ho Chi Minh City to exchange, learn and absorb the quintessence of human cultural values, on the basis of preserving and promoting cultural values of the nation in education, training, and building new Vietnamese. The traditional standards of education in Ho Chi Minh City are shaped on the traditional ethical foundation of the Vietnamese, so in the process of globalization and international integration, the city education foundation has conditions to promote traditional values of the nation such as: "study manners first and then learn to read and write", "be deferential to teacher and respected for moral", "gratitude"... to friends around the world, enhancing the position and prestige of Vietnam on the international arena. At the same time, in the process of international exchange and contact, new standards and values of the era and the world are imported into the City, which will contribute to facilitating the city's education to learn, absorb, such as the spirit of dynamism, creativity, autonomy, independence; gradually eliminate backward, conservative and stagnant habits that still exist in a large part of the city citizens as well as city students, thereby training citizens to love their country,

be proud of their nation, good personalities, a sense of civility and social responsibility.

The limitations of globalization and international integration for global citizenship training in training global citizens in Ho Chi Minh city

Besides these important developments, there are still many limitations to taking advantage of the impact of globalization and international integration on global citizenship training in Ho Chi Minh City, such as:

First, to be behind the times in education and training be compared to other countries in the region and the world is still a constant risk and difficult to get through, because today's globalization, basically, is essentially globalization of monopolistic capitalism takes place in the context of real socialism in recession, so its negative impact to the developed countries of the socialist path is even more apparent. In terms of economy, this is a very tough and complicated competition between countries in the context of monopolistic capitalist forces increasing strong influence, dominating globalization all over realm of social life.

Although, in 35 years of integration, Ho Chi Minh City has achieved continuous economic growth and is interested in investing in the city's education and training to develop qualifications, expertise, soft skills for workers to integrate internationally, but the scale of training does not really pay attention to quality. Curriculum, content and teaching methods are the most decisive factor in improving the intellectual level of the people as well as the quality of human resources. However, the curriculum, content and teaching methods are still outdated. The training focuses too much on teaching knowledge but does not pay much attention to teaching skills, manners, culture, behavior... for employees. For example, the introduction of artificial intelligence into the teaching of high school students for all students initially achieved positive results, however, the implementation of this content in practice faced many difficulties. In which, the biggest difficulty is that the school does not have a team of teachers specialized in artificial intelligence to teach. On the other hand, the school's facilities have not really met the

requirements for teaching artificial intelligence. The education system that is heavy on exams and the moral decline in overcoming education is slowly becoming an urgent problem in the society. The exam-heavy education system also puts pressure on candidates and parents, leading to a permanent coping mentality in learners and achievement races of teachers, schools and parents. The illness of achievement and fraud in exams has been rampant in education and society. Along with that, the employees still lack industrial style, labor discipline and professional behavior, a part is slow to adapt to the market mechanism, the organization and discipline are not good, the ability to apply the faculty, poor learning, engineering and technology... Ho Chi Minh City's employees lack many qualities, capacities, and skills compared to the requirements of socio-economic development to face the globalize competition. This is a real challenge, a difficult problem for Ho Chi Minh City in training global citizens, and soon it needs a comprehensive, long-term strategy to get over.

Second, the risk from the hostile forces' conspiracy "peaceful developments" to destroy our country with new, more drastic and sophisticated manifestations than before in the process of globalization. This leads to a decline in political ideology, morality, lifestyle, "self-evolving", "self-transforming" expressions, including bureaucracy, corruption, and wastefulness of officers, Party members nowadays. Globalization because of the developed capitalist countries govern the rules of the game "The great fish eats the small", developed countries will share more opportunities than poor countries. But poor countries are at risk of being squeezed and losing, easy to face risks in the economy, culture and society. Ho Chi Minh City is the economic, political, cultural - social center of the country, the negatives of globalization have been a strong impact on the education and training of global citizens, such as the hostile and reactionary forces can take advantage of the open integration policy to promote the activities of undermining the education through cooperation and investment in internally, thereby promoting "self-development", "self-development" "transforming" and

"implementing the plot" peaceful evolution", making "socialist deflector" with new manifestations in terms of subject matter, method, content, goal... has developed to the top enough to be considered a "technology", a "subversive technology", with so many different scenarios in all sectors, especially through the increased investment in education and training with the main purpose that they aimed are pupils, students and young people, making them lose their orientation in perception, thought, lost their will, belief, degraded morality, lifestyle, fading their rationality, thought, target socialism, from there it will weakening the role and strength of students, hindering the mission of training global citizens in Ho Chi Minh City today. This is a risk that cannot be underestimated, this fact requires us to have appropriate solutions, how to deal with it and how to get through it, so not to fall into a passive and unexpected situation.

Thirdly, the current globalization has had new developments, along with the development of science and technology has accelerated the process of forming an information society; At the same time, it also threatens to preserve and promote the traditional values of ethnic groups in the world, including Ho Chi Minh City, Vietnam. A few major countries are taking advantage of the process of globalization to find ways to spread their cultural values, languages, customs and lifestyles around the world, with the powerful support of tools, Multi-platform media, implementing its "cultural hegemony" intrigue, fading the national traditional values. Many factors of anti-value, anti-culture and harmful opinions and ideas are easy to penetrate, and distort traditional cultural values and ethics. This is an existing and increasing risk for Vietnam as well as localities in the country, especially its negative impacts on young people such as: run behind money and material, deviated moral standards, hybrid lifestyle, personality selfishness, foreign dignity, away from traditional national values in the spiritual life of a part of today's youth. That is a big challenge for the education and training of global citizens in Ho Chi Minh City for preserving and promoting traditional values in developing countries.

One of the reasons for the above limitations

and weaknesses is that Ho Chi Minh City has not properly understood the impact of globalization and international integration on training global citizens, thereby building a strategy for the future. appropriate development in education and training development policy to meet the requirements of international integration. Also, due to the subsidy mechanism, how the upper tells how to do so, there is no need, and it is not even creative. Therefore, to meet development requirements, there should be clear decentralization and decentralization. Assign autonomy and create creative possibilities to educational institutions, but also need to be associated with supervisory responsibilities of state management agencies and society in the legal corridor. In other words, it is necessary to democratize management so that everyone has the right to contribute, promote intelligence, and ensure the promotion of creativity and responsibility of educational institutions and individuals. In the process of globalization and international integration, inspection and examination must be effective and efficient. Ensure that not only the State checks the quality, but also makes it public for the people to monitor the quality. In addition, management is first of all the responsibility of state management agencies, management (administration) of educational activities is the responsibility of schools, it is necessary to distinguish between state management and institutional management. department. education.

Solutions to improve the impact of globalization and international integration in training global citizens in Ho Chi Minh City

Firstly, comprehensively, fully and deeply aware of the role of "top national policy", the fundamental and motivation role of education in training global citizens in economy - society development strategy in the Party Committee, authorities and agencies, social organizations and people of the city in general; thereby creating a unity of awareness and action in the city's political system, aiming to train global citizens to serve the process of globalization and international integration in Ho Chi Minh City. This solution must be conducted

consistently and throughout the entire socio-political system of Ho Chi Minh City.

Second, maintaining a stable macroeconomic environment, on that basis, promoting economic restructuring associated with economic growth model innovation, improving productivity, quality and efficiency of operations in economy. In order to promote rapid and sustainable economic growth for human development and to create important conditions for the implementation of social progress, Ho Chi Minh City needs to promote faster economic restructuring to services - industry - agriculture, to focus on developing industries with added value and modern scientific content, creating resources for the implementation of education and training development.

Third, continue to promote the innovation of content, curriculum and teaching methods to improve the quality of human resources, to meet the goals of globalization and international integration in Ho Chi Minh City: communicate and ensure that everyone can go to school; focus on intellectual and physical development, quality formation and civic capacity, discovering and fostering talents, and career orientations for students in accordance with the specific characteristics of the city. For the vocational education system, to rapidly increase the training scale for vocational colleges and vocational secondary schools for industrial area, dynamic economic region and for labor exportation; to expand the network of vocational training establishments, develop province and district vocational training centers; improve the education level, skills, discipline, personalities of employees, focus on training skills and expertise for workers, based on the actual needs of each area in the city, through the forms of self-training and joint training. For higher education, focus on training qualified workers suitable to the process of economic restructuring, in which, focus on human resources for industries with high technology content and added value. ensuring the demand for high-quality labor for the services and industries that are the city's strength; step by step proactively participate actively and effectively in the high-tech labor market in the region and internationally, first of all, 8 professions that are freely transferred in

the ASEAN Economic Community. Universities and colleges organize enrollment by themselves according to the wishes of students after graduating from high school.

Fourth, building a learning society, a civilized society with the values of truth, goodness and beauty; know how to criticize and condemn acts contrary to social ethical norms; comprehensive human education. It is necessary to build this model to be "open", that is, models and activities that were originally just "family" and "schools" now need to be converted to "social" character. Therefore, for the school, the task is to build an "open", "debating" school environment; capacity development-oriented training program - experience-based; A learner-centered educational approach, using a comprehensive assessment approach through appropriate tools in the comprehensive assessment of citizenship. The assessment does not just stop at assessing learners' grade (process evaluation and overall evaluation), but also needs to evaluate the program itself, placing the program in a practical context for evaluation, according to monitor and promptly adjust, improve and maintain global citizen education in an appropriate and effective way.

Fifth, do well in formulating planning and plans for development of education and training, defining strategy for human resource development correctly, on the basis of well-implementing the work of forecasting the demand and the labor market, also doing good at zoning the network of universities, colleges and vocational training, in order to train human resources according to fields and training levels, in accordance with the needs of society, effectively in the socio-economic development strategy, as well as the globalization and international integration of Ho Chi Minh City.

Sixth, building this model is "open", that is, the models and activities that used to be only "family" and "school" need to be transformed into "social" character. Therefore, for the school, the task is to build an "open" and "critical" learning environment; training programs oriented to capacity development - based on experience; a learner-centered educational approach, using a comprehensive assessment approach through appropriate tools in a comprehensive civic capacity assessment.

Assessment does not stop at assessing learners' learning outcomes (process assessment and overall assessment), but also needs to evaluate the program itself, placing the program in a real-life context for evaluation. Monitor and promptly adjust, improve and maintain global citizenship education in an appropriate and effective manner.

Conclusions

Comprehensive awareness of the impact of education on the training of global citizens in Ho Chi Minh city has great implications for socio - economic development in the city. In the current globalization background, the training of global citizens with knowledge, skills, political courage has contributed the

socio - economic in the modern way, thereby, incentive to push the economic growth rapidly and sustainability, enhancing competitiveness, ensuring the strong and sustainable development of the globalization process in Ho Chi Minh City. However, education also creates many challenges for the training of global citizens in Ho Chi Minh City, it is necessary to synchronously implement the above solutions to enhance the impact of education on public training global citizens, to actualization the goal of building Ho Chi Minh City into an economic, financial, commercial, scientific - technological and cultural center of Southeast Asia.

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THE PATTERN OF GUILT, RETRIBUTION AND REFORMATION IN RUSKIN BOND'S "THE THIEF" AND "CHACHI'S FUNERAL"

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ABSTRACT

Ruskin Bond is not only a familiar name among the readers of literature. His love for flora and fauna is intense. The influence of his father and grandfather enabled him with that sensible expertise to listen to the intimations of the nature's phenomenon. The characters become one with the natural elements or objects to become a close influence on him. Thus, the experiences and association of Ruskin Bond with nature have imbibed a sense of objective and optimistic understanding about fellow human being, an essential quality required for every human being for a happy living. Of course, the two short stories under discussion have much to do with the nature of human beings trying to explore and undergo the guilt, reformation, and retribution conflicting against their self-centeredness. The Thief in the story of the same name becomes an improved version of earlier nature and submits himself to the superior educative influence of Arun.

Keywords: *Guilt, Repentance, Reformation, Affection, Quality*

About the Author

Ruskin Bond, an Indian author of British descent, was born on 19 May 1935 at Kasauli, Himachal Pradesh. His short stories depict his proficiency in portraying the various aspects of child psychology. He represents the liveliness in the familiar people's life and the dimensions that could be cherished to make one's life satisfying and unique.

Introduction

Ruskin Bond is an ardent lover of this planet. Therein, he understood the ecology of the prevailing environment around him. Ruskin Bond was endowed with an uncanny power to listen to flora and fauna's ecological relationship intimately. He also has observed the tendencies of fellow human species. He represents the species in a gentle and untarnished manner. The selected stories speak about the characters of two different age groups. Their ages vary, and the contexts that they are placed are different. It has a beautiful capability of overpowering the queer effects of ego and self-centeredness and the resultant repentance.

THE THIEF- A Rundown Version

This story opens with a tone of confession, which states his past life as a thief at the age of 15, giving himself a negative appreciation that

"I was an experienced and fairly successful hand" (Pg. 48). He meets an individual named Arun at the wrestling ring. He observes that Arun would become easy prey for his wretched practice and introduces himself with an assumed name, "Deepak". "Deepak" started the conversation with Arun and following him after a while. With an utmost pretended smile, he tenders a proposal to work for Arun. He was flattering with his talking ability which happens to be one of the superior qualities. Spontaneously Arun responds, "You flatter me" (48), realizing Deepak's intention and still says that he cannot afford to pay. "Deepak's" intention was to win his confidence and convinces him to feed him and lies that he can cook. "Deepak" gradually wins Arun's confidence, and Arun even taught him the ability of writing. "Unfaithfulness" happens to be another superior quality of a thief. To justify the mentioned quality, he pilfers an insignificant amount from the shopping he does for the daily commodities. He mentions the money that he receives of being unfaithful as "Profit" "I would take my time buying the day's supplies and made a profit of about 25 paise a day." (49)

Arun comes with handsome money on an evening, and Deepak observes him tucking the notes under his mattress. Very soon, Deepak realizes his itching practice as a thief and

conspires to steal the money. It was a damn easy task for him to steal. Deepak stole the money when Arun was asleep. He ran into the Bazar, and after realizing that the amount was ransom, he plans on the spur of the moment to catch the Amritsar Express. Nevertheless, he hesitated to step into the moving train's carriage that has started just due to some unexplainable reason.

That passing train has lit up a strange conflict in the mind of Deepak. After realizing some peculiar sense of loss and isolation that he would be experiencing, he walked back into the Bazar in a state of daze of not knowing where to go. Deepak started realizing the tragedy that Arun would be undergoing after coming to know about this betrayal. Deepak's mind was abuzz with thoughts and at last, not caring about the rainy night, he ran back to Arun, keeps the money back. Deepak realized that his relationship with Arun is something special.

The next day morning, Arun gives him some money and promises that he will be paid regularly. With that Arun's act, Deepak spirits rose, and he appreciated himself. Deepak comes out with a real and natural smile in exchange.

Deepak- Epitome of Self-Centeredness

This story begins with a confession note of a thief stating about his past life, duly recollecting the person who became the reason for his realization and repentance. The narration opens with a treacherous purpose of flattering an innocent Arun who leads his life after his taste. The fundamental characteristics are signified in every act of the character that meets Arun with a self-centred intention.

The technique of changing names is the foremost quality of a thief. That quality is reflected in these lines of response to the questions asked by Arun, "What's your name?". The thief lies as "Deepak", and a soliloquy tone says that "Deepak was about my fifth name... I had earlier called myself Ranbir, Sudhir, Trilok and Surinder."⁽⁴⁸⁾ The second foremost quality of a thief is indicated as tendering a plastic yet most appealing smile, represented in the lines "I gave him my most appealing smile."⁽⁴⁹⁾ The wisdom and nobility in realizing the malicious intention of "Deepak" were signified in his

minimal words "you flatter me... that's alright." Then this Deepak agrees for every condition and even lies that "I can cook."

Arun considers him his friend, but Deepak has always associated and lived with Arun with a single lousy intention to exploit Arun's generousness. Being merciless is another quality of a professional thief, and he gives a new name for the amount that he pilfers from the day's shopping as "I would take my time buying the day's supplies and made a profit of 25 paise a day."⁽⁴⁹⁾

Arun's unsteady source of earning never bothered Arun's nobility and generosity. He never felt "Deepak" as a burden but has taken up additional voluntary responsibility of teaching Deepak how to write. That evening when Arun earns a ransom has revived the concealed wicked intention of opportunistic "Deepak", signifies another dangerous quality of a thief. Arun's affectionate and kind sparing was soon forgotten by "Deepak."

Deepak conspires to steal Arun's hard earned money and plans to run away from the town post robbery. The professional attitude and the thinking tendencies in a merciless manner is another quality of a thief of which is mentioned in the lines "I sat upon the floor, my blanket wrapped around me, considering the situation, there was much money in that way, and if I took it, I would leave this town... I might make the 10.30 express to Amritsar..."⁽⁵¹⁾

"Deepak" came out with the stolen money and thought that "he would live like a prince month or two."⁽⁵¹⁾ The mentioned sentence reflects the fickle, selfish and ungrateful tendency of a thief. Deepak was about to step into the moving train, and he is experiencing some new, unfamiliar, and strange sensibility. That tiny beautiful anonymous sensibility chained the legs of the opportunistic name changing, crooked individual. The hard-boiled yielded to the new reformed surge consistently is the first step being converted to Arun's good intention. Once for all, he saves himself from the hell of deterioration and walks towards bettering himself.

Arun's Nobility, Trust- A Guiding Force for Deepak's Reformation

Deepak visualizes Arun's sadness at betraying Arun's trust and is submitted to Arun's

intention to educate and make him an honest being as a trustworthy, gentle friend. Considering caring about the other's feelings is the second act of repentance. It has been reflected in the lines, "But I knew neither panic nor anger nor fear would show on Arun's face when he discovered the theft, only a terrible sadness not for the loss of the money but for my having betrayed his trust."⁽⁵³⁾ This marks true penitence with the grace in a reformed thief and Arun's success in bringing about a genuine transformation. The indicated sentence marks the highest point of grace earned by Deepak. He is reformed and wants to toe his entry into the line of genuine. Arun is becoming a reformed, educated self. It results in the shredding of his old self.

"I found myself on the maidan and sat down on a bench with my feet tucked up under my haunches."⁽⁵³⁾ States that his mind is now ready and open to repent about the committed deed and the posture that signifies is the prayer that he has taken up to address and feel apologetic, is the highest nascent point of repentance that Deepak has acquired.

The drizzle while sitting in the prayer posture tuned into rain that drenched the repented Deepak and has rinsed away all his deeds, and his crooked tendencies are signified in the lines "soon it was raining heavily... my shirt and pyjamas stuck to my skin and a cold wind brought the rain whipping across my face."⁽⁵⁴⁾

His previous knack of creeping to reach the target has positively served the enlightened Deepak for replenishing the notes intact. Repentance and nobility were bringing not only a reward but also satisfaction, "His hands were stretched out towards me. There was a five-rupee note between the fingers my heart sank... I smiled at Arun in my most appealing way and the smile came by itself, without my knowing..."

CHACHI'S FUNERAL- An Overview

The story opens with a tricky and exciting monologue "Chachi died at 6 PM on Wednesday 5 April and came to life again exactly twenty minutes later. That is how it happened."⁽¹⁾ The work is about "Chachi" who happens to be tolerant towards small sons, daughters, nephews, and niece. However, there

is a peculiar psychological aversion that was crept into the mind of Sunil, one among the small sons. The superior intellectual quality of Sunil, then her sons might be the reason for it.

Sunil's temptation towards grabbing a honey bottle that was out of his reach resulted in chaos. The bottle was crumbled into pieces and added to that chaos, Chachi was the one who witnessed, and the boy must face the music. Sunil wept and brooded on vengeance.

Sunil retreated to his 'den' to equip himself with the required weapon to kill that 'stern' and 'rude' Chachi, who is the actual reason for this fuming outrage. Then came Sunil's cousin "Madhu", who continually furthers the cause of Sunil. He explains to her the intention to kill Chachi with the instrument he had. Then with a bit of hesitation, she too supports the idea of killing Chachi in a "different" way. She draws the picture of Chachi with a red crayon and asks Sunil to stab, and so does Sunil. "You have killed her" declares Madhu and calls for cremation, and so they do burn the pieces of drawing into ashes. "Poor Chachi," said Madhu when the ashes were thrown into the drain that were flown away due to a sudden gush of kitchen water. Madhu looked towards Sunil and has noticed that Sunil was repenting about his impulsive ruthless act of "killing Chachi" within no time. Sunil went running to Chachi hugged her tight, expressing all his repentance blended with the affection he had towards Chachi, duly receiving the same from Chachi.

A Child's Impulsive Fury Against The Parent's Punishment

This story spoke about the childlike fury and outrage towards his Chachi when he received thrashing punishment for the childish deed. After receiving a thorough beating by the Chachi, Sunil goes into his private place and prepares to kill Chachi with a Clasp Knife is signified through the lines "a clasp knife... opening the knife he plunged it thrice into the softwood of the window frame." These lines reflect the influence of that day's Cinema/Drama on the young minds and even the tone "I'll kill her... I'll kill her! he whispered fiercely" repeatedly "I'll kill her... I'll kill her"⁽²⁾ comes in as a support to intensify the impression as mentioned above.

Madhu's Idea -A Dual Panacea of Subsiding Sunil's Fury and Evoking Reformation

“who are you going to kill Sunil?” the lines uttered by a dark slim girl of twelve symbolizes Sunil's inner thinking. The sense of dominant fury of “Sunil” even dominates the discretion of “Madhu”, and she also supports Sunil's idea of killing Chachi. Soon her discretion offers a harmless and robust alternative to the killing procedure. That idea wins over Sunil's self harmlessly. Madhu might even have an idea to teach Sunil a lesson about the consequences resulting from an impulsive decision.

Every stab on the Chachi's caricature on the paper gave relief to the pent-up anguish and fury of Sunil on Chachi. “Well, if you like, we can even cremate her.”⁽³⁾ The act meant to stab the caricature of Chachi in the earlier sentence and cremating her is a conciliating act of revenge. The burning of caricature made for the satisfying way of taking revenge. He feels sorry.

The state of repentance is represented through the flowing tears. Sunil went running to Chachi and confessed to the mistake that he has committed. He also expresses the abundant hidden affection that he had towards his heart has been softly represented in the concluding lines “Oh Chachi! Shouted Sunil. He rushed to her and tried to get his arms around her ample waist.”⁽⁴⁾ His genuine repentance was returned with a soothing consideration but, the look

reassured her of the genuine affection that she saw in his eyes. Chachi caressed gently on Sunil's head and steered him towards the kitchen.

Conclusion

In the selected short stories, the first one represents an utter self-centred tendency that cares about self-good and has got the crooked guts of addressing the other's pilfered money as a “profit” about the earned money through questionable means. This kind of character was soon turned out into a man of discretion that evoked the immediate sense that had enabled him to have that positive gut feeling of taking up the journey of realization and repentance, which ultimately led him towards reconciling with his well-wisher. The concern of Arun towards educating this anonymously five or more named person might have done all the magic.

The second story signifies the fickle child's crookedness as a retort to the stern and punishing tendency, pointing out that child's mistake. The symbolic suggestion of “Madhu” is a clever way of appeasing Sunil's anger. The ploy she invents is effective in realizing Sunil's anger by an imaginary vendetta. The remorse expressed in the tears of Sunil later brings about the good nature of the angle like figure in Madhu. Sunil's repentance reflects his authentic self, which was momentarily paused due to his anger.

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THEMATIC CONCERN'S IN T.P. KAILASAM'S ENGLISH PLAY 'THE PURPOSE'**B. S. Reddy**

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ABSTRACT

T.P. Kailasam directly or obliquely projects certain purpose in 'The Purpose.' The purpose of Bheesma is to strengthen the plinth of Kuru dynasty, the purpose of Acharya Drona is to make Arjuna the supreme archer in the world ; the purpose of Arjuna is to excel all in archery; and the purpose of Ekalavya is to protect his deer and fawns from wolves. To fulfil their purpose of all of them struggle hard, but unfortunately they do not succeed. The purpose of Drona is shattered when Ekalavya becomes a supreme archer by his dedication and perseverance. Arjuna's purpose to excell in archery is defeated by Ekalavya, who by virtue of his penance and perseverance excels Arjuna. Ekalavya, in spite of mastering excellence in archery, becomes incapable by offering his thumb as guru - dakshina. This paper is an attempt to explore the art of T.P. Kailasam's thematic concerns in his English play – The Purpose.

Keywords: Archery, perseverance, guru-dakshina, myths

Introduction

Drama has always been an effective genre in the world of literature due to its audiovisual medium of expression. In fact it has always been an integral part of philosophical approaches and social changes in various countries. Drama highlights the contemporary culture, religious convictions and evaluates the moral commitments of the society. The history of Indian dramatic literature dates back to 'The Rigveda' which is considered to be the most ancient among Indian literary productions and the oldest of all the 'Vedas.'

A deeper critical study reveals that in the first half of the 19th century *Yakshaganga* troupes used to travel extensively and perform stage shows across their geographical domain. The modern Kannada theatre started emerging in the last quarter of the nineteenth century. During this period the much needed material infrastructure for Kannada printing and publishing had been established. Modern educational institutions were established across the region. All these factors contributed the development of Kannada literature, This period between 1880–1920 is popularly considered as the 'Kannada Renaissance.' Unfortunately, theatre in Karnataka was never an organized and unified movement. It was divided into many individual and independent street performing rural groups.

After 1915, however, the amateur theatre underwent a transformation. Tyagaraja Paramasiva Kailasam (1885 - 1946), widely known as T.P. Kailasam was a talented actor

and a great playwright. He mostly took themes and characters from the great Indian epics of Ramayana and Mahabharata. He makes his characters brave the challenges of destiny, which itself is obscure and mysterious. The present paper discusses his one of the five English plays – *The Purpose*.

The PURPOSE

The Purpose (1944), chronologically a later play, unfolds Ekalavya's youthful idealism during his discipleship in archery. Arjuna, the Pandava Prince, learns archery only to satisfy his personal ambition of being the supreme archer in the world, while Ekalavya, in this play, masters this art with the purpose of driving out the wolves from the forest and thus protecting his deer and fawns. Although this play has such great individuals as Acharya Drona, Bheesma. Arjuna and others yet the main action in it concentrates on Ekalavya, the young Nishada boy. Commenting upon the significance of this insignificant Nishada of the Mahabharata S. Krishna Bhatta appropriately says:

“It is a matter of wonder that the few words narrated by Vyasa about Ekalavya in the *Adi Parva* and the passing reference made in the *Drona Parva* of the *Mahabharata* could become a powerful play in the hands of Kailasam”

“This play in two acts, even with some imperfections, is one of the greatest contributions made by Kailasam to Indian drama in English”. This play is actually more complex in its conception and execution than

his latter plays like *Karna* and *Keechaka*. The latter plays are concerned simply with psychological conflicts and destiny of an individual. These individuals, being mythological figures, overcome the mundane and the ordinary problems of life, and try to understand the cosmic meaning of the individual's relation with destiny. Unlike these plays the purpose of *The purpose* is something different from merely exploring the destiny of these individuals. This play aims at discovering the very purpose of human life, the purpose of its creation, and growth and death and after life. The individuals are merely the carriers of the vast and ambiguous purpose of the human existence. Even an individual of the stature of Bheesma finds himself confused when he comes on to comprehend this purpose.

The speech of Bheesma, in the beginning of the play, hints at the limitations of human beings. It is only God who knows the purpose and consequences of an action. This is why Bheesma repeatedly says "HE KNOWS THE PURPOSE OF IT ALL ! Not we!" He knows merely that the Kuru princes, who are taught the science of warfare, will fight among themselves, that is, the Kauravas and the Pandavas will become dire enemies of one another. He also knows that it is the story of every house on this planet. It is Bheesma and Acharya Drona who provide the play with a philosophical basis.

Kailasam has borrowed the philosophical framework from the *Bhagavadgita*. While talking to his favourite disciple Arjuna, Drona describes three kinds of human action — action for the purpose of livelihood, action for selfish purposes and action for selfless purposes, that is doing good to others. In this play almost all the characters are seen actively involved in their respective actions. They represent one kind of action or the other, and thus provide a wide range of human behaviour. The best action, that is, action for selfless purposes is represented by Ekalavya, who intends to learn archery from the renowned teacher Acharya Drona with the purpose of protecting the deer and fawns from the wolves. He has no end of his own to serve.

Acharya Drona's action may be categorized as the action for the purpose of livelihood, while Bheesma's falls into the category of

Ekalavya's action. Kailasam has intentionally made Arjuna represent the action for selfish purposes. He even does not hesitate in blaming his own teacher in the presence of Ekalavya for the former's secretly teaching the latter the art of archery. On the other hand, Ekalavya is so devoted to his "Gurujee" that he, not tolerating Arjuna's charges against Acharya Drona, voluntarily chops off his right thumb and offers it to the Acharya. Thus Ekalavya wins by losing and Arjuna loses by winning over his adversary. However, whatever may be the intents and attempts of the doer, but as Bheesma repeatedly says, "HE KNOWS THE PURPOSE! Not we!"

The latter part of the play is mainly devoted to the episode of Ekalavya, a Nishada boy. Kailasam's Ekalavya, as he himself explains, has all the 'five elements' necessary for a pupil—a perfect mastery of the ground-work of archery, power to concentrate, a deep and fervent love for one's Guru, his whole hearted willingness to learn, and lastly assiduous practice. On meeting Acharya Drona when Ekalavya tells him of his noble cause for which he wants to learn archery from him, the Guru is moved to compassion and is about to consent, but because of his commitment to Arjuna to make him the supreme archer in the world he refuses to accept the poor Nishada boy as his pupil. He knows fully well that without the blessings of the Guru no disciple can achieve anything in life. And, therefore, he returns to his forest, makes a clay - image of Acharya Drona and starts practicing archery. By virtue of his penance and perseverance he becomes an outstanding archer. "Here, the stress is on the power of penance, its potentiality of concentration and single-minded effort on the one hand, and accomplishing something (here learning archery) on the other."⁶

The second Act of the play brings the rejected disciple and the royal teacher face to face. Several years later, when Arjuna has become the greatest archer in the world, Acharya Drona and Arjuna passing by a forest suddenly happen to see a wolf rushing, shrieking in agony, pierced by the shafts continuously following from an unknown source. Not to speak of Arjuna even mighty Drona is baffled to see this feat of archery. They come out in search of this unknown

archer, and suddenly come face to face with Ekalavya in whom Arjuna sees his potent rival for supremacy in archery. Recognition, in other plays, generally brings peace, perfection and fulfilment as in Kalidasa's *Abhijnan Shakuntalam* or in Bhavabhuti's *Uttara Rama Charitam* and in other such plays. But in the case of Ekalavya, as in that of Oedipus Rex, the moment of recognition is tragic. Although Ekalavya has no role to play in the larger context of the Mahabharata War yet Arjuna is not prepared to tolerate him and expresses his jealousy against Ekalavya. He goes to the extent of even blaming Dronacharya for teaching him secretly and thus making him the greatest archer. Then Ekalavya, though caught in between dual loyalty (his teacher on the one side and his fawns on the other), realizes his teacher's awkward position and not being able to tolerate the accusation "liar" on his teacher, cuts his own right thumb and places it at Drona's feet as his fee (gurudakshina). This voluntary act has exalted Ekalavya's character to the heights of perfection.

The image of the thumbless Ekalavya is tragic. The thumb of this supreme archer is what intellect is to the sophisticated, it is a supreme mark of his identity. Ekalavya's purpose of protecting his deer and fawns is going to be defeated due to the whim of Arjuna. To him archery is an essentiality while to Arjuna a game. One is a hunter the other is a warrior. But in this play the warrior acts like a hunter and the hunter becomes a warrior. Whatever may be the circumstances, Arjuna a prince and a warrior should not have provoked Ekalavya to chop off his thumb. It appears that Arjuna finds himself incapable to face him on the equal footing. Instead of defeating him on the battlefield he emasculates him by contriving the chopping off of his thumb.

The Purpose is a mythological play representing Bheesma and Drona's philosophical ideas, and exalting the character and personality of Hiranyadhanu's son Ekalavya. The first Act of the play is philosophical while the second concentrates on the episode of Ekalavya's offering unique gurudakshina to his teacher, Acharya Drona. Though the theme of the play is mythological based on the *Mahabharata* yet Kailasam makes

certain changes in the mythological facts and references. For instance, in the original *Mahabharata* it is the dog that appears before the princes with his mouth full of arrows, but in Kailasam's play it is a wolf pierced with Ekalavya's arrows. Another significant change that the playwright makes is Ekalavya's offering of his thumb voluntarily. When Arjuna accuses Acharya Drona of teaching Ekalavya secretly and thus not keeping his promise of making him (Arjuna) the supreme archer in the world, Ekalavya instantly says, "Gurujee! you will keep your promise., and I will stop his mouth forever." And immediately he chops off his right thumb to the utter satisfaction of Arjuna and the surprise of all. In the original *Mahabharata* the right thumb of Ekalavya is demanded by Dronacharya deliberately to render him incapable of shooting.

Conclusion

T.P.Kailasam, in '*The Purpose*', has beautifully concealed the conflict of the High-born and low-born behind the curtain of the struggler for supremacy in archery. However, as the play belongs to pre-independent India, there can be identified certain hints and suggestions of colonial expansion and the exploitation of the have nots like Ekalavya. In this context Ekalavya seems to be representing fighters of freedom, wolves the English rulers, deer and fawns the people of India, and Arjuna symbolizes the feudal lords who obliquely help the wolves.

Bio Note

Dr. B.Sreekanth Reddy is presently working as an freelancer. He lends professional services as a consultant to M.Tech and Research scholars and guides them in their thesis and research work. He previously worked as an EFL trainer for TVTC College of Technology – Adham Branch – Kingdom of Saudi Arabia. Previously, he was also associated with Rajiv Gandhi University of Knowledge Technologies – R.K.Valley. He has 15 years of experience in teaching English at various levels. Contributed research articles in nearly 20 National and International journals. His areas of interest are – Diasporic studies, ESP EFL, TBL and multidisciplinary studies.

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HUMAN GAIT RECOGNITION BY FUZZY REPRESENTATION OF PARTIAL WAVELET COHERENCE

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ABSTRACT

In this paper, a completely unique view invariant gait recognition method based on Partial Wavelet Coherence (PWC) is proposed. We extract 1D signals generated due to movements of hands, legs, shoulders from multi-view gait sequences. The fuzzy representation of the Partial Wavelet Coherence (PWC) of those 1D signals deploy as novel feature for recognition. PWC preserves discriminant information of the individual subject which we use for identification and recognition. The proposed approach has been tested on CASIA multi view database.

Keywords: Gait recognition, wavelet coherence, cross wavelet transform, partial wavelet coherence.

Introduction

Gait recognition has been heavily researched in recent past due to its various advantages like unobtrusiveness, can be captured from distance, work better even with inferiority video and so on. Unlike first generation bio metrics like face, iris, finger print recognition system, this second generation bio metric don't require restricted identification setups and subject cooperation like physical contact with sensor. Gait recognition i.e., identification of people by the way they walk, has gained researchers' attention in last decade and various gait recognition methods are proposed [1], [2], [3], [4].

Gait as bio metric has various challenges. It affects due to some internal or external factors, called as co variate factors. Internal factors are often mood, fatigue, drunkenness, pregnancy (in case of female), injury to foot, change in weight etc. The external factors are often indoor or outdoor environment, surface of walking, wearing shoes or coat, carrying bag, speed of walking etc. Various approaches are proposed for gait recognition. They will be broadly categorized as model free and model based. In model free approach the appearance based image processing techniques are deployed where as in model based approach the physical body dynamics is modeled. Most

of the approaches extract features based on shape geometry, pose estimation, modeling physical body then extracting the parameters of model.

The viewing angle plays an important role in gait recognition [5], [6]. The form and dynamics of physical body changes a lot when the sequences captured from different viewing angles of the same person. This is often viewing angle effect. Most of the methods available in literature exploit same viewing angle for training and testing. To show in to view-in-variant and nonrestrictive gait recognition system, the identification method should be unaffected by viewing angle. Even though few approaches like [7], [8], [9] analyze phase variation of the gait cycle for recognition. The coherence based gait recognition approach which is demonstrated during this paper isn't used yet as per our best of knowledge. Next we review some state of the art gait recognition approaches.

Literature Overview

Model Free Approach: The very initial plan to demonstrate the beholding of motion patterns of human displacement by using moving light display done by Johanson [10]. [1] proposed a way during which they divide silhouette into 7 parts and fit ellipse in those regions. They extract various parameters of

ellipse like; centroid, ratio, major and axis, orientation of axis. All these parameters of seven regions constitute a completely unique feature vector which is then used for person identification. Further [2], [3] use Procrustes shape analysis for automatic gait recognition. First they extract silhouette from the image sequence then apply Procrustes shape analysis method to get mean shape. They use this mean shape as gait signature. Further they employ full Procrustes distance for recognition. Where [3] deploy the static fusion approach during which structural and transitional features extracted and used for recognition. Procrustes analysis used for extracting shape feature and a person's model consists of truncated cone is employed for tracking and recovering joint angle trajectories of lower limb.

A new gait representation has been proposed by [11]. They prepared gait energy image from the sequence of gait images. This representation preserves the temporal information of the sequences during a single averaged image. [12] use fusion of multiple gait cycles for recognition. First they extract silhouette from sequences. The gait cycle is estimated by calculating auto correlation. From each partitioned gait cycle they extract features like gait energy image and motion silhouette image. Finally they use NN classifier.

[13] proposed a 3D method which utilizes complete body shape signature. They extract stereo silhouette vector from 3D contour. They transform this stereo silhouette vector in to 1D stereo gait feature. [14] utilizes the property of radon transform because it guarantees maximum energy for many frequently changing silhouette are like legs and hands alongside various joints. They use Haar wavelet transform first to extract horizontal and vertical features then radon transform applied to construct feature. Hu moment similarity is employed for recognition. Another wavelet based approach [15] uses time - frequency analysis of extracted gait cycle. They calculate area of lower half silhouette image. The gait cycle is made by using the varying area of silhouette image half portion because the

subject walk. After wavelet decomposition they calculate mean, variance, skewness and kurtosis of every subject. An easy city block distance measure is employed for identification. [16] proposed a way which is independent of angle of view. First they extract gait cycle which is that the function of width and height of silhouette. Then the temporal matrix is calculated from each gait period. The angle normalization is completed by geometric transformation. LDA is employed for feature analysis. [17] utilizes soft bio metrics like height and stride length during a probabilistic framework for gait recognition. [18] extract spatial and temporal templates which are then projected in to low dimensional space by applying PCA. Canonical analysis is employed for recognition during which accumulated distance is employed as a metric.

Model based Approach: In model based approach the human walking mechanism is modeled by some mathematical means. Even though it's has more computational cost it describes physical body dynamics more efficiently. An initial model based attempt for gait-based recognition during a spatio-temporal (XYT) volume is completed by Niyogi and Adelson [4]. First they found the bounding contours of the walker then fit a simplified stick model thereon. A characteristic gait pattern in XYT is generated from the model parameters for recognition. In an- other paper [19] the estimation of hip and knee angles from the body contour by rectilinear regression analysis is given. Then trigonometric polynomial interpolant functions are fitted to the angle sequences and therefore the parameters so obtained are used for recognition. In these model based approaches, the accuracy of human model reconstruction strongly depends on the standard of the extracted human silhouette. Within the presence of noise, the estimated parameters might not be reliable. to get more reliable estimates, Tanawongsuwan and Bobick [20] reconstruct the human structure by tracking 3D sensors attached on fixed joint positions. However, their approach needs many human interaction.

Wang et al. [3] build a 2D human cone model and extract dynamic features from different part for gait recognition. Zhang et al [21] use a simplified five-link biped locomotion human model for gait recognition. Gait features first extracted from image sequences, and then used to train hidden Markov models for recognition. Where in [22] a stick model is developed using HMM with markers placed on body. In [23] bulk motion, shape and articulated motion estimation was done by gait motion model adaptation. It's a crucial research point within the field of computer vision to recover the coordinate of 3D point from 2D projective images taken by a monocular camera, especially for the camera calibration and 3D reconstruction. In [24] authors have adopted a pair of parallel lines as a feature which is extracted from gait video captured by a monocular camera. It describes the mathematical character of human's walking style. In [25] the 3D model's parameters configuration forms the state vector X and therefore the real image would be the observation Y . Condensation algorithm was used due to its capacity to handle the multi modal and non-Gaussian observation probability. In parallel, they modified the basic algorithm by introducing the interval particle filtering that tends to reconfigure the particles search space in an optimal way. These modifications preserve the benefits of particle filter which offers and have a tendency to scale back the complexity of the essential algorithm. The tactic proposed in one interesting paper [26] considers the fusion of three discriminative component-based features (parameters): 1) the area of each body component 2) the center of each body component, and 3) the orientation of everybody component. The above features are fused supported component and temporal weighting. Experimental results show that the proposed method generally outperforms all other methods that use manual silhouettes. The angles extracted in defined well frames are utilized for looking for a continuous function, to estimate their successive variation process with reference to time. The function is expanded in Fourier series form in succession, taking under consideration of gait's periodic

property. Finally, the vectors composed of Fourier series coefficients are used for classification. In [27] estimation of the position and orientation of the body part, height, stride length, cadence is completed by ellipse fitting and XYT plane slicing. In [28] kinematic gait generative model (KGGM) and the visual gait generative model (VGGM), which represent the kinematics and appearances of a gait are applied to estimate the kinematics of an unknown gait from image sequences taken by one camera. During this paper, we propose a way for gait recognition employing a novel feature supported coherence of various body parts. We use CASIA multi view gait database (Dataset B) consists of 124 persons. Each person is depicted in 10 sequences with various covariate like normal/slow walking, with bag, with coat etc. The sequences are captured at 11 different viewing angles (0° , 18° , 36° , 54° , 72° , 90° , 108° , 126° , 144° , 162° , 180°) with reference to frontal view in anticlockwise fashion. Thus the database is contains $124 \times 10 \times 11 = 13,640$ gait sequences. We use binary silhouette provided readily in database for this work. The person is represented by his/her coherence revealed within the body movement during an entire multi period gait cycle at a specific direction. So as to preserve the dynamic body information we utilize partial wavelet coherence which is proposed in geophysics [30]. The similar partial wavelet coherence of varied body poses then extracted by applying k -means clustering to urge Partial Coherent Pose (PCP). The temporal information is preserved by calculating the similarity using fuzzy distance of every test subjects' partial wavelet coherence with all partial coherent poses. For classification the ultimate gait representation i.e. PCP is then projected during a low dimensional discriminant subspace using LDA.

The main contributions of this work are:

- The use of partial wavelet coherence as a novel feature for gait recognition.
- The use of partially coherent poses for gait recognition. It is partial wavelet coherence of coordinated body movements at that instant of gait cycle.

Problem Statement

Let D be the gait database consists of PN

persons, VA viewing angles and CV covariate factors. As mentioned earlier we use CASIA multi view gait database, PN = 124, VA = 11, CV = 10. A view invariant recognition system should identify person walking at any arbitrary angle. Body volume could also be same for various persons at different angle of view. This might be due to view angle effect. The outer appearance of person under investigation could also be suffering from wearing different cloths. Speed of walking is additionally a big covariate factor. In these cases key pose are often observed for a particular gait cycle. It's going to also possible that a specific angle provides significant discrimination of the walking person. For instance gait cycle can't be extracted of an individual walking at an angle 90° to the camera plane i. e. front view.

Gait is that the coordinated movement of physical body, resulted due to leg and hand movements alongside shoulders. The walking style is that the appearance of complete physical body dynamics and co relation among body parts like legs and hands. The foot strike and hand swing are different for various person. During this paper we attempt to explore the co relations among leg swing, hand swing and shoulder swing through partial wavelet coherence.

Preprocessing

Each person in CASIA database is walking at VA viewing angles alongside CV covariate factors. Each gait sequence consists of t frames. Because the gait cycle is multi period the number of gait sequences t differs for various sequences. So as to extract various 1D signals we'd like well-defined silhouette. However the silhouettes in CASIA database have many breaks and holes as shown in figure. After labeling the silhouette morphological operations are performed.

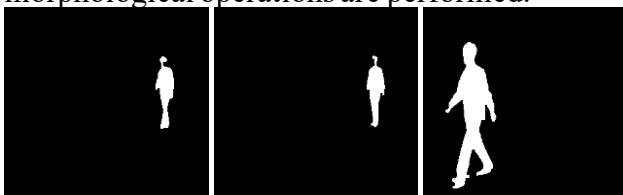


Figure 1: Inferior Images

Further we divide each silhouette in three equal parts which contents different body portion. The primary part contains shoulders. The second part contains hands and third part contains legs. By applying bounding box on each part we extract 1D signal which is variation of width due to movement of shoulders, hands and legs which constitute gait cycle. We extract these three 1D signals form each gait sequence for 7 viewing angles excluding 0°, 18°, 162°, 180°.



Figure 2: A Preprocessed Complete Image

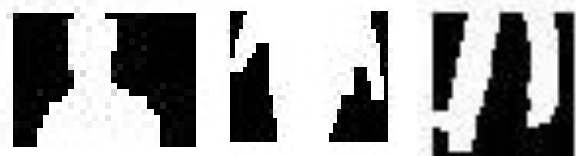


Figure 3: Body parts extracted from a complete silhouette

Partial Wavelet Coherent Poses (PWCP) Calculation

Let X_n is 1D signal due to legs movement i.e. gait cycle, Y_n is due to hand swing and Z_n due to shoulder movement extracted from every multi period gait sequence. The partial wavelet coherence is analogous to partial correlation. It reveals coherence between X_n and Y_n after eliminating the persuade of Z_n and following [29] written as,

$$PWC(X_n, Y_n, Z_n) = \frac{|[WC(X_n, Y_n)] - [WC(X_n, Z_n)WC(X_n, Y_n)^*]|^2}{[1 - WC(X_n, Z_n)]^2 [1 - WC(X_n, Y_n)]^2} \tag{1}$$

Where, $WC(X_n, Y_n)$ is the wavelet coherence between two time varying signals X_n &

Y_n and can be written as,

$$WC(X_n, Y_n) = \frac{|S[W(X_n, Y_n)]|}{\sqrt{S[W(X_n)] \cdot S[W(Y_n)]}} \quad (2)$$

Where, S is smoothing parameter, $[W(X_n)]$ and $[W(Y_n)]$ are wavelet transforms, $[W(X_n; Y_n)]$ is cross wavelet transform of both series. The cross wavelet transform of two given series is given as,

$$W(X_n, Y_n) = W(X_n) \cdot W(Y_n)^* \quad (3)$$

Where $W(X_n)$ is continuous wavelet transform and $*$ is complex conjugation.

The cross wavelet power can be defined as,

$$W_p = |W(X_n, Y_n)| \quad (4)$$

The local relative phase between X_n and Y_n can be expressed as complex argument,

$$\Phi_n = \arg(W(X_n, Y_n)) \quad (5)$$

The complete representation of cross wavelet spectrum is,

$$W(X_n, Y_n) = |W(X_n, Y_n)| e^{i\Phi_n} \quad (6)$$

Where Φ_n is the phase at time t_n .

S is the smoothing parameter and expressed as [31]

$$S(W) = S_{scale}(S \text{ time}(W(s))) \quad (7)$$

$W(X_n, Y_n)$ is the cross wavelet transform which exhibits the area of common higher power in the spectrum. Cross wavelet transform of two signals X_n and Y_n is given as,

$$W(X_n, Y_n) = W(X_n) \cdot W(Y_n)^* \quad (8)$$

Where $W(X_n)$ is continuous wavelet transform, a zero mean function which already has been proved an efficient tool for time-frequency analysis of non-stationary signals and $*$ is complex conjugation. Being localized in time and frequency, it decomposes the signal at finer resolutions by scaling and translating a mother wavelet function. Following wavelet transform is used as mother wavelet.

$$\psi_0(\eta) = \frac{1}{\pi^{\frac{1}{4}}} e^{i\omega_0 \eta} e^{-\frac{1}{2}\eta^2} \quad (9)$$

The cross wavelet power can be defined as $|W(X_n, Y_n)|$. The local relative phase between X_n and Y_n can be expressed as complex argument $\arg(W(X_n, Y_n))$. The complete representation of cross wavelet spectrum is,

$$W(X_n, Y_n) = |W(X_n, Y_n)| e^{i\Phi_n} \quad (10)$$

Where Φ_n is the phase at time t_n

For each gait sequence we extract mean PWC and finally feature vector is produced $PWC_{mean}^{(PN,VA,CV)}$, $P_N = 1 \dots 124$, $V_A = 1 \dots 7$, $C_V = 1 \dots 10$.

To produce PWCP, each $PWC_{mean}^{(PN,VA,CV)}$ is used in the training phase. K -means clustering is applied to achieve this. It clusters training $PWC(P_N, V_A, C_V)$ vectors to Q clusters to minimize the within-cluster sum of squares;

$$\sum_{q=1}^Q \sum_{i=1}^{PN} \alpha_{iq} \| PWC_{mean}^{(PN,VA,CV)} - P_q \|^2 \quad (11)$$

where $\alpha_{iq}=1$ if $PWC_{mean}^{(PN,VA,CV)}$ is assigned to the cluster q and $\alpha_{iq}=0$ otherwise.

The partial wavelet coherent dynemes P_q , $q = 1 \dots Q$ are the centers of cluster. It preserve the partial wavelet coherence information of the person captured from a particular viewing angle.

Fuzzy Representation Of Partial Wavelet Coherent Poses

The $PWC_{mean}^{(PN,VA,CV)}$ vector describes the mean partial wavelet coherence of PN th person, walking at a viewing angle VA and having covariate condition CV . This partial wavelet coherence of each training subject then transformed in to a fuzzy distance. The partial wavelet coherence vectors are mapped to the centroids of the clustered poses P_q . The fuzzy distance of each training vector $PWC_{mean}^{(PN,VA,CV)}$ to all P_q are then calculated as follows,

$$d_{fuzzy} = (\| PWC_{mean}^{(PN,VA,CV)} - P_q \|^2)^{\frac{-2}{m-1}} \quad (12)$$

Where m is the fuzzification parameter and following [23] set to 1.1. Other distances can

also be deployed but fuzzy distance exhibit smooth representation hence preferred. Further for the final representation of the coherence vectors in coherence space, the fuzzy distances normalized to get membership vectors.

$$R_{pwc} = \frac{q_{fuzzy}}{\|q_{fuzzy}\|} \tag{13}$$

To make this cumulative fuzzy membership vector duration invariant as we use multi period gait sequences, the mean of R_{pwc} is taken.

For $i = 1, \dots, CV$ and all $t_j; j = 1, \dots, pq$ membership vectors,

$$v_i = \frac{1}{t_j} \sum_{k=1}^{t_j} R_{pwc}^{ik} \tag{14}$$

Linear Discriminant Analysis (Lda)

We apply LDA to v_i to project into low dimensional discriminant subspace in training phase. Each person can be linearly separable in this subspace. In LDA an optimum projection matrix W_{opt} is derived to minimize the fisher criterion.

$$W_{opt} = arg\ min \frac{trace\ W^T S_w W}{trace\ W^T S_b W} \tag{15}$$

Where S_w and S_b are the scatter matrices of within class and between class,

$$S_w = \sum_{n=1}^C \sum_{i=1}^T \frac{(S_i - \mu_n)(S_i - \mu_n)^T}{N_n} \tag{16}$$

$$S_b = \sum_{n=1}^C \frac{(\mu_n - \mu)(\mu_n - \mu)^T}{C} \tag{17}$$

(μ_n is the mean vector of class n and μ is the mean vector of training set. The partial coherent dyanemes membership vector g_i in LDA space then obtained as,

$$g_i = W_{opt}^T v_i \tag{18}$$

In training we use 7 viewing angles. We extract partial wavelet coherence of all the sequences of all the subjects with all the covariate conditions for these angles. In testing we can use all the angles or less. Hence the person can be identified by probabilistic model such as Bayesian framework. Following [23], a priori probabilities can be given as $P(PN)$, $P(VA)$, $P(CV)$. Let $P(j)$ is the a priori probability of occurrence of j th person, then a posteriori probability of the j th person in the database which get recognized correctly can be given estimated using following formula,

$$(j | P_1, V_1, C_1 \dots P_N, V_N, C_N) = \frac{P(P_1, V_1, C_1 \dots P_N, V_N, C_N | j) P(j)}{\sum_{n=1}^N P(P_1, V_1, C_1 \dots P_N, V_N, C_N | n) P(n)} \tag{19}$$

Results

We performed experiments on CASIA gait database B which is described earlier. Figure 4 to Figure 9 shows all the results step by step for a person walking normally at an angle 360. It can be observed that in the initial frames the movements of both legs, hands and shoulder cannot be captured clearly because of self-occlusion. This is due to viewing angle effect. After certain frames, movements of all these body parts can be captured clearly and generate 1D signals as shown in Figure 4 to Figure 6.

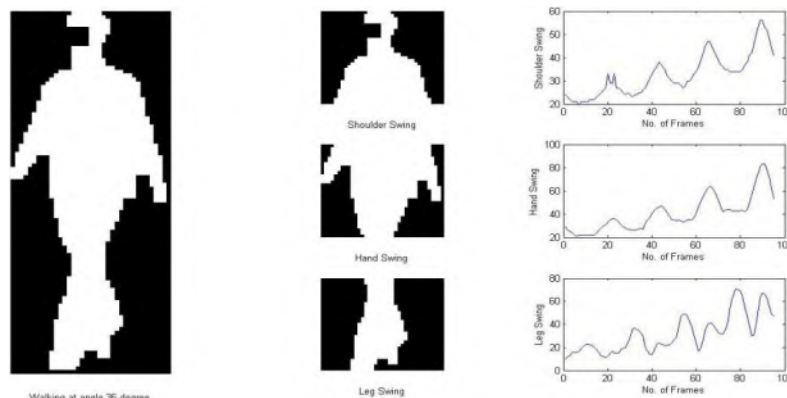


Figure 4: Generation of 1D signals walking normally at 36°

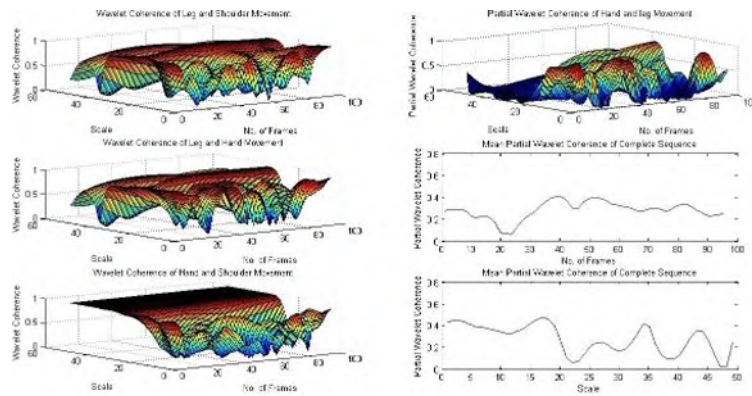


Figure 5: Wavelet Coherence among all 1D signals walking normally at 36°

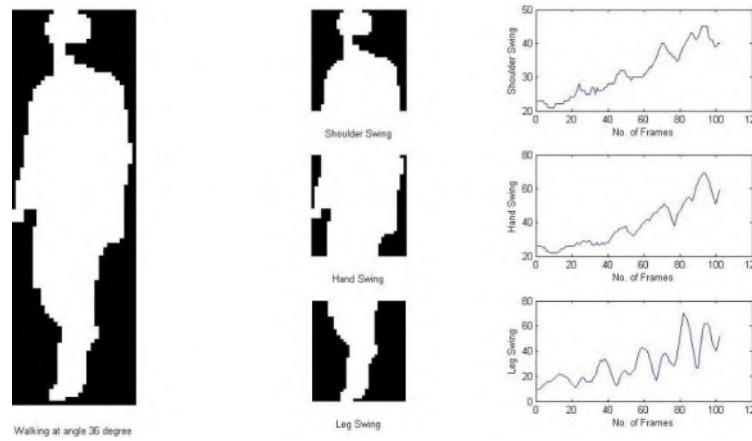


Figure 6: Generation of 1D signals walking with bag at 36°

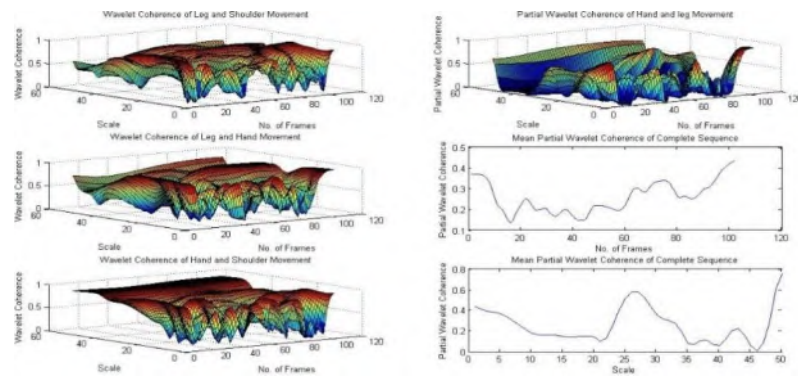


Figure 7: Wavelet Coherence among all 1D signals walking with bag at 36°

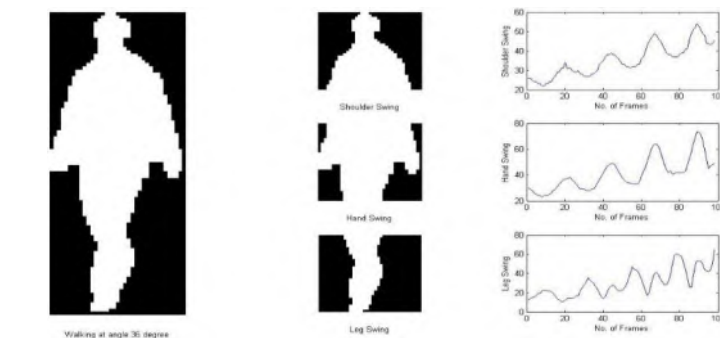


Figure 8: Generation of 1D signals walking with coat at 36°

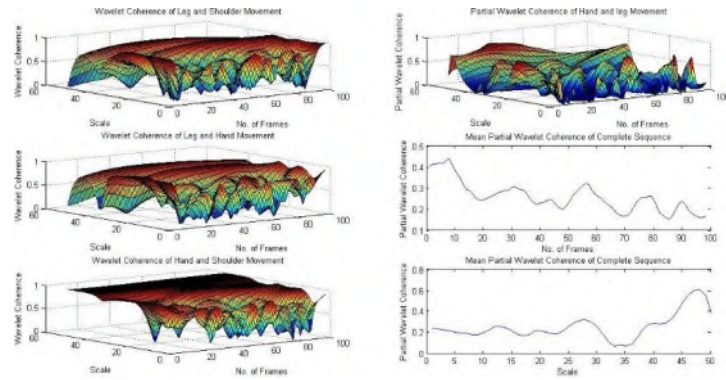


Figure 9: Wavelet Coherence among all 1D signals walking with coat at 36°

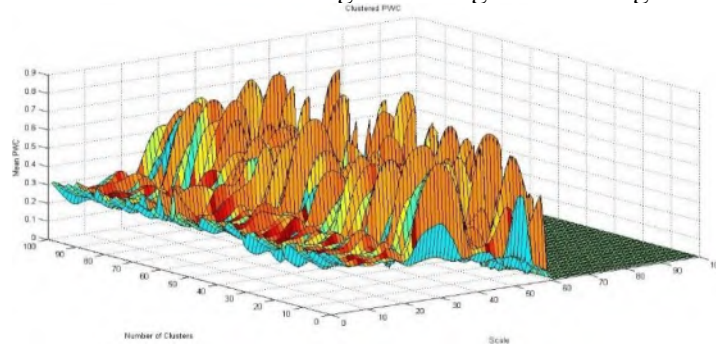


Figure 10: K-means Clustered PWC

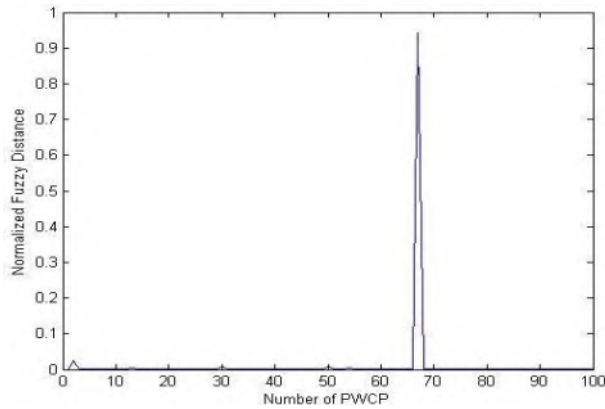


Figure 11: Fuzzy distance of a person walking at angle 36° from PWCP

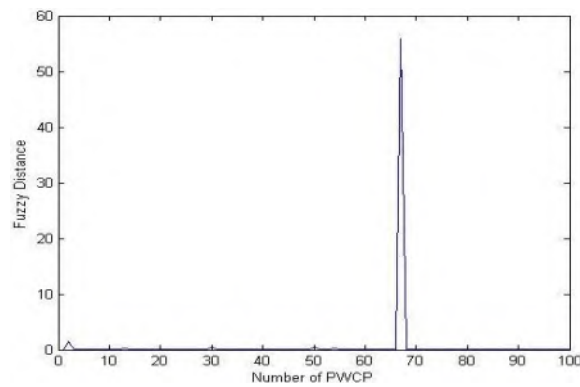


Figure 12: Normalized Fuzzy Membership Vector

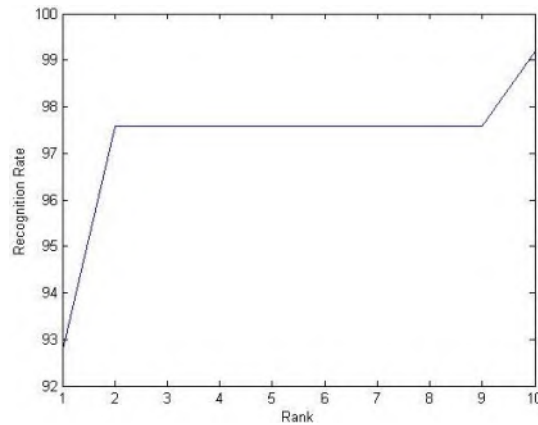


Figure 13: Recognition Accuracy

Table: 1 Comparison

Method	View-Inv[31]	SEIS [32]	SVM[33]	Proposed
Angle/Covariates	6/10	1/10	3/10	7/10
Recognition Rate	73.6%	78.33%	87.50%	97.5%

Conclusion

In this work we extracted 1D signals from the movement of hands, shoulders and legs of all the gait sequences with all covariate conditions of multi view gait database. Then Partial Wavelet Coherent Poses of those sequences having similar coherence extracted by K-means clustering. The fuzzy distance between partial wavelet coherence of every sequence and clustered partial wavelet coherent poses

preserves discriminant information of the walking subject. We got 97.5% mean identification rate. Table 1 shows comparison of proposed method with earlier methods. Even though we got encouraging results the self - occlusion couldn't identified and removed. This might flow from to the binary nature of image. In future we'll attempt to resolve the matter of self – occlusion.

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STUDY OF THE SATIRICAL TRIP AND ADVENTURES IN THE VICTORIAN PERIOD IN CHARLES DICKENS' SELECTED NOVELS

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ABSTRACT

The satire about the atrocious morality, corruption and partiality of the Victorian era was prevalent in Charles Dickens' novels. This research is a reflection of his vision and thinking on profiting from the economic revolt and the political and social change with the Victorian era. This thesis attempts towards imagine in what way Charles Dickens pushes through his most acclaimed Victorian works his complex ironical path. As for Nikolaus Nickleby, Tale of Two Cities, Little Dorrit as well as Bleak House, in order look at the satirical trends with the novel. In addition, the study analyses the historical, social and economic modification novels drawn in the Victorian era and England in the 19th century. Notes for this study are taken from Charles Dickens' novel Nicholas Nickleby, Little Dorrit and Bleak House, Tale of Two Cities. The studies suggest, of course, that drug exploration journeys have been most idolatrous to Carlos and thus to the Victorian humour that, in addition to imagination, has imitated the novels of the author. So we expect that people in London can split their lives, their coincidence and so do the Dickens warriors and youth.

Introduction

The Victorian England of Charles Dickens' 19th century is surrounded and mostly organised in the technical and initial grasp of the Industrial and thus urbanisation Revolution. Satire also adapted itself as the literary style and genre that were often visited and which throughout the nineteenth century became milk and brown by several social thinkers and authors, the undeniable and immutable foundation of which was to change morality and transform English territory into a lying bowl and human beings into subjects of moral decay, and English judiciary and lawlessness. Through improved education productivity together with controlling big assets/fertile wealth endemic possession, they stretched out inherent wings above the classless, weak, underprivileged and troubled souls, called the Capitalists in an economy that discriminates against marxist dialectics.

For a novelist in general, "his culture is the immediate material from which his view and philosophy of existence is created. Literature is said to be the reflection of culture. This definition of literature is best shown by the novel as a literary medium. The novel itself represents the time it was a commodity. It is more authentic in a way than other literary styles and thus represents not only the spirit,

but also the truth of society and its peoples' living conditions" (Singh 2). Dickens thus appeared as a creative insightful, careful author who has an analytical awareness of his abilities to discern positive and evil values in society. Major countryside and conventional long-lived private affairs, using old- now dismissed methods - were restored with a involuntary age. It was not a religious, logical, heroic, or flower age but a machine age in which the bitter history of labour – the proletariats and the middle community – brought about issues of irreparable lack of morality, physical fatigue and dissatisfaction (Singh 8). "The bonding of an intimate relationship and devotion to the elders that appeared unshaken for England in the 18th century has been obscured or almost overlooked with the development of power-driven machines," Herbert L.Sussman explained in her work 'Victorians and the computer. The farmers believed that the loss of their lands was more important than the loss of hope, bravery, initiative and even self-respect. The dominant working standards of the factory sector caused the family bond to deteriorate, and general moral principles and educational crises crumble. The quarters of the staff suit primarily a scene of bodily fatigue of people of any age and all genders in tiny spaces. The damage to religious principles, family relations and the virtues of sympathy and care to others

was similar to the harm to physical wellbeing in their materials." Over everything, "Family bonds became financial purely. Both decades and spiritual observances have been a matter of sheer farce in this grim environment. The family members were nothing more than the mean wise man. Timidity, misery, hunger, drunkenness, parental brutality and lack of treatment, filial defiance, deprivation of conjugal relationship and rights; the absence of maternal love; the destruction of brotherly and sisterly affection were key factors leading to a deterioration in the state of family existence" (Former 1). Therefore "The organic relations of the English civilization have been substituted by industrial disorder" (Standort 234). "With the divert from agricultural to industrial production of capital investments, effective adaptation of latest technologies to the usage of modern factories, capital.

In all realms of existence, all powerful started to concentrate in the grip of the bourgeois little party" (Briggs 89).

Saturist, advisor and moralist as trenchant Dickens

A big transformation from an agricultural setup to a technological and utilitarian ideal, the subconsistant period in the Industrial Revolution, the rebellious and apocalyptic French revolution transformed England as the glorious country.

Dickens was quite vague in his answer to this mechanical age. "We therefore [in his novels] often make him welcome and keep him accountable for suffering and bad in human culture"" " Therefore, it is often seen (Singh 41). Dickens' approach to the oppressed and his anger at the scrupulous and indigestible unjust labour rules in factories, ecological vanishing life and its venerated legal and ethical regimes and "unhumane methods to exploit the factories of children and iron foundries" are all the bits of Dickens (Forster, 346). Dickens' citizen has significantly revived to function tirelessly to improve community, harm the class and the victimising human capital. He was not so much political but humane and social in his contribution to the issue of society. Dickens thought that the social structure had more accountability than the citizen" [apparently] (Collier 157). It is interesting to

note that Dickens' untimely novels strike the discrete for all the troubles that have faded into the degraded, industrial claustrophobic setting. However, his works later saw a great change. His topics and topics have been transitioning visibly. He "indicated culture as a whole" for England's suffocating mechanical and industrial climate, burning in the flames for invention and fatal radical pessimistic energy. "Before writing Nicholas Nickleby, Dickens promised to reveal in his later novels the horrors of industrialism" (Chapter 48) In reality, the author David Copperfield, Christmas Book, Break House, Hard Times, Little Dorrit, Great Expectations and Our Mutual Friend are splendidly performing this.

"Dickens was growing up in a community where the 'complete dismantling of conventional ideals and the dehumanisation and use of the machinery to help the owners is pervasive" "Dickens" (Briggs 88). Dickens' productive awareness and innovative authorial skills grew deeper and darker over the long-established ideals of theology and morals. He was also a satirist and a prude and a generous. His critical strikes were important, more obvious in creation and were a hitting, true incarnation of unremembered feelings and reactions in a neoliberal mechanical world.'

In Little Dorrit, the speaker imitates and selects 'Society hierarchy, mercenary marital scheme, social conspicuousness, social security nets and British treasury/Govt. Society bureaucracy.' "Dickens's presentation of culture itself is mostly "impersonal approach to love and marriage because of the entrepreneurial spirit and money control. The Circumlocution Office extends the impersonal spirit of a scheme that has substituted for personal relationships" (Thompson 151). Periphrasis is "analogous to the complex economic structure, the money in which is the sun that revolves like planets" (Singh 64). Then, the knowledgeable and diligent author like Dickens reveals "marriages" and refers to the mercenary intent of marriage that the modern environment gave birth to as the mercenary culture. We see an example of bourgeois approach to the married alliance founded on concerns of riches and security in the dialogue allying Ms Merdle, a woman in society and Mrs Gowan." (Chant 62). Ms.Merdles' mercenary marriage strategy

is an expansion of society's mercenary spirit. The cool and flawless way Merdle discusses Edmund Sparkler's marriage to Fanny Dorrit is an indication of the irony of Dickens' critique of this wedding." It's therefore a pure utilitarian idea centred on wealth gains, the ultimate aim of which is the status quo and the upliftment of the hierarchy. Dickens deliberately exhibit "the beauty of the wedding scheme and the absence of sensitivity in the Pessimistic Ms Merdle and Gowan" (Dickens Bk.I Ch. XXXIII). In contrast. In contrast. A positive and perfect light shows the married alliance between Clennam and Little Dorrit. The principle of profound empathy, shared assistance and strong compassion was the basis for it. "This union is indicative of peace and bliss, which survived from the dark and disgusting social structure of the heartless. Dickens' biblical phrases for the description of that marriage indicate that he saw the ray of hope for human redemption in the revival of human emotions from the vice of the cruel social order, embodied by Marshall Marine Jail, Circumlocution and the Mercenary Society experience. Dickens Bk. II Ch. XXXIV). "The poor in Little Dorrit want to make fast money, even though they have to borrow and hunger, through investment in Mr. company. Merdle's The speculative spirit is evident as a kind of investing disease from which even Clennam isn't immune. Therefore, speculation and competitiveness are linked to the complications of the modern economic environment under which the consumer becomes a powerless person. In addition, the social structure, in which entrepreneurship and business spirit dominate, is like a jail that affects the very soul of freedom" (Batho, Dobree 137). Dickens several as far as the novels show how "the notion of illness, insanity, misery and starvation, starvation and dirt was usually associated with the concept of moral, social and theological psychological distress" (Singh 79). "Fiever in Little Dorrit prison is loosely related to perversions among the prisoners of the Marshalsea prison in the context of the principles. We have pictures of people with different diseases alongside the image of community that is suffering from various moral and theological depravity" (Singh 80).

Dickens' Bleak House makes fun of the English judiciary framework with the overhaul of the judiciary. All this is achieved by treating a 'judicial case' manifestly. Furthermore, though Dickens "presented a bankrupt company as a closed system, he also took the reader to Tom-All-Alones slum where the supreme criminality, suffocation, disease and people lived in a private world, where no fresh air from outside would enter the physical world to invigorate their bodies or soft feelings from the moral world c c (Dickens Ch.16). Once again, the author addresses the subject of education creativity. It is necessary to remember that "Tom All Alones' children are pictured as intellectually delayed and moral insufficient, and there is no indication that they have never been trained. Dickens thought that the increase in the criminal instinct of children in a great measure was the product of their lack of adequate schooling opportunities." He considered it a major failure of the modern mechanical Victorian company as a key advisor (Hoppe 186). In BleakHouse he "describes Tom-All-Alones for hunger, violence, and ignorance and cries out laissez-faire promulgators who consider poverty to be part and parcel of the natural order" (Tomlinson 53). He teaches in a manner alike humanity must understand its madness to be accountable to the disadvantaged to provide equal opportunities for the working class.

England of the late 18th and early 19th centuries

London was practically worshipped as a genre in the 18th century. Swift, Pope, Johnson, Dryden and Fielding were the satire-freaks who created powerful, aggressive and convincing literary works which charaded and challenged the prevailing ways of the conservative authoritarians of Bonaparte, Walpole and other right wings in the Elizabeth and Augustan ages. Satire has been seen in such days as a delicate comment mode and also as the bitter comment mode. Gulliver Travels, The Vanity of Human Wishes, the Rap of the Door, Tale of the Bath and Tom Jones were their most outstanding films. Charles Dickens was to pursue this legacy in the future Victorian years.

The satirical trend of Dickens was also incomprehensible. He became the most famous writer who attracted large B's to his eminent and glamorous styles of writing and rational transcendence, which he boldly enjoyed as a inventive poet. Through writing his most popular books, Mr Copperfield, Hard Times, Tale Of Two Cities, Mr Oliver Twist and Mr Great Expectations, he has provided an insight into his cognitive excellence.

The Victorian literature was never noticed at the beginning of the nineteenth century as becoming a distinctive genre for its satirical nature. Satire was also used to strengthen the social-political protest, class, capitalist and/or anti-feminist philosophies. Satire is an instrument. Satire written by William Thackeray (born 1811–d. 1863), The Great Victorian satire novels predominated throughout the 1st half of the 20th century. By the end of the 1840s, however, excessive or unbroken writing had become progressively frustrated, and sardonic and satirical elements of satire had increasingly earnestly enabled their opponents, both morally and aesthetically, to chasten satirists as having little to do with it. In brochures and objection ballads, especially during the social turmoil of the 1840s, radically working-class writers developed satire, but were often disregard or censored. Satire in the mid-century inclined to the classic, indulging Horatian ridicule of insanity."

Industrial Revolution

Certainly, Industrial Revolution occur in not a day's work. It has a affluent British tradition - from a late 1900s to the untimely 1700s - the kernel of which had still been seeded by English and European landscapes throughout the history of revolutions. During the first part of the 19th century the activity and modifications started during the late 16th and 17th centuries "was made more evident and tangible. In this time, new but slow shift in the culture of the nation has resulted in a dramatic change in nature, world, humanity and religion. These improvements were made possible actively and implicitly by the Industrial Revolution. The economic and monetary physical life of the citizens was influenced on one side" (Singh 15) and on the other their community and faith as well as their social and

personal behaviour. It should also not be ignored that "the Victorian events not only were a rapid spurt of economic activity, but were often the culmination of steady development in the past. There are, however, trends generated in earlier times where it is viewed as breaking some of the patterns formed in the past. The reforms that have taken place in the domestic sectors have had their origins in the past. The organisation of the guilds, in which a worker had both his own manufacturing tools and supplies, had been established before he was the Industrial Revolution. Following was a home system under which the machines had been owned by the workers, but not the tools, and the worker was relegated to merely labour in the factory environment created by the industrial revolution.

The tools, or the supplies. For his bread he negotiated his labour."

"The machinery has been more and more involved in the field of manufacturing following a series of discoveries in England and has transformed the Island State into the factory of the nation. In the cotton industry, one of the leading manufacturers, great ideas started and their nature changed. An economic heritage milestone was the beginning of the industrial revolution in England. In its first stage, people were little aware of its darker side and enthusiastic about its great solution. However, with industry growth embraced as a messengers of relaxation and societal calm, an enormous shift took place in people's lives beyond reparation. It destroyed the ancient ways of living and gave way to free option that smashed the ancient ways of thought. There were all reasons that favoured a transition from agriculture to modern England."

In all imaginable sectors, the movement carried with it countless changes. "The improvement of carry methods, building of navigable channels, good roads and railroads, steam traffic to distant countries, the exploration of Lancashire and Cheshire's wealth of minerals, the appeal of steam to produce and locomotive applications, the invention of large inventive light tool industries, and the enormous increase of cotton and other materials (Singh 20).

Tale of two towns and Nicholas Nickleby were elevated inspired by this tough emotionless period, Dickens and his dominant, academic moralistic, socialist, 'ironic satiric' novels. His masculine supporter were the result of the machine like, emotionally empty and fractured sensible age. "The enclosures have been one of the key reasons moving growers and farmers away from their hot cosy houses. The government has vehemently articulated enclosure legislation in order to recover the food deficits as the inflows of food from other international countries have stalled since the Napoleonic Conflict. For typical farm jobs, it was a serious hit." Similarly the fast and constant development of trading enterprises and factories has led to the removal from the ruling circle of old and conventional natural output partnerships of the illiterate traditional ploughers, weavers and so on.

London was essentially adored as a genre in the eighteenth and early nineteenth-centuries by England. Swift, Pope, Johnson, Dryden and Fielding were the satirical freaks which produced strong, violent and compelling literary books which in the Elizabeth and Augustan times charaded and questioned the dominant manners of the conservatory authoritarians of Bonaparte. In these days Satire has been used as a sensitive mode for comments and a bitter mode of comment. The most excellent movies were Gulliver Travels, Human Wishes Vanity, Door Rap, Tale of the Bath and Tom Jones. In subsequent Victorian years, Charles Dickens was to follow this inheritance.

Dickens' ironic theme was often unintelligible. He became the leading author of his illustrious and beautiful prose and mental transcendence that B's greatly attracted, and he boldly enjoyed as a proliferate poet. He gave intuition into his coherent excellence with writing his most important novels, Mr Copperfield, Hard Times, Tale Of Two Cities, Mr Oliver Twist and Mr GreatExpectations.

At the beginning of the 19th century, victorian literature was never seen as a distinctive form for its humorous character. Satire was often used to reinforce class, patriarchal and/or antifeminist social-political protests. Satire is a tool. The Grand Victorian satirical romances predominated throughout the first half of the

twentieth century, published by William Thackeray (b. 1811–d. 1863). But by the end of the 1840s, repetitive or controversial writing had gradually been frustrated, and the satire's sardone and ironic features were making it even more earnest for their critics to chastise satirists, both morally and aesthetically. Satire, though sometimes neglected or suppressed, has been radically working people in leaflets and resistance ballads, in particular during the civil agitation of the 1940s. Satire tended towards the classical, Horatic satire of insanity throughout the middle of the century."

Revolution in industry Revolution of Industry

Of course, there was no day job for the Industrial Revolution. It possesses a rich British heritage, from the late 1900s to the late 1700s, whose core was indeed seeded during revolutionary culture by English and European landscapes. In the first part of the 19th century, throughout the late 16th and 17th centuries, the activity and changes began to become more obvious and tangible. In this period, there was a drastic change in nature, environment, civilization and faith due to a recent, yet gradual change in national culture. The Industrial Revolution rendered these changes consciously and indirectly necessary. Citizens' economic and monetary existence on one hand and communities, their religion and social and personal behaviour on the other" (Singh 15). It can also be noted that "the Victorian events were also the result of a slow growth and were not just a sudden boost for economic activities. However, there have been developments in the past where some of the cycles in the past have been seen as breaking. The changes in the domestic industries have come to life in the past. Before it was the Industrial Revolution, the guild organisation was established in which a worker provided all his own production equipment and supplies. The result was a home device in the manufacturing world developed by the industrial revolution, whereby the worker was confined to the workforce and not the machinery.

The instruments or the materials. He was negotiating his work for his food."

"After a number of discoveries in England the machinery has become more involved in the field of manufacture and turned the Iceland State into a country factory. One of the leading manufacturers in the cotton industry began brilliant ideas and changed their existence. The start of the industrial revolution in England was an economic heritage landmark. In its first point, its darker part and its great approach were little known to citizens. However, with the rise of business welcomed as an engine of peace and relaxation, people's lives have changed enormously. The ancient way of life was destroyed and a free choice was given, that broke old ways of thinking. There were any excuse for a shift from cultivation to contemporary England."

"The improvement of transfer methods, productive of navigable channels, good routes and railways, steam traffic through remote countries, explore the wealth of mineral resources at Lancashire and Cheshire, apply steam to manufactures and locomotives, invent the broad ingenious light tool industry's numerous changes have been made (Singh 20). The story of the two towns and Nicholas Nickleby, Dickens and his powerful, academic-moralist, socialist, 'ironic-satiric' novels, were magnanimously influenced by this hard emotionless time. The artificial, mentally vacant and fragmented utilitarian era led to his

masculine protagonist. "One of the main factors for shifting farmers away from their hot, cosy houses were its enclosures. In order to restore food deficiency as the food inflows from other foreign countries have been stalled after the Napoleonic conflict, the government has vehemently voiced insertion regulations. It was a major blow for traditional farm workers." The rapid and continuing growth of trade companies and factories has also contributed to the displacement of traditional alphabets, weavers and so forth from the presiding class of old and conventional innate production partnerships.

Conclusion

Dickens and thus the Victorian spirit loved the journeys of self-finding. Therefore, both the fiction and the truth of this Victorian author's novels represent this strongly. Thus, we imagined that the lives and destiny of the people of London, and consequently the characters of Dickens and young children, are likewise crossed by lanes and lanes across the city of London. The Victorian mechanical torturing worldly lives, without a say, are embroiled in people, stripped of responsible faces, whose influential speech Dickens represents.

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COMPARISON OF SINGLE-SERVER MODEL AND MULTI-PHASE SINGLE-SERVER MODEL

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ABSTRACT

Waiting lines or Queues are a part of daily life. The Queuing models are useful to determine how to operate a queuing system in the most efficient way if the waiting time of customers is more. In the given research paper, we have made a comparison between two models. We have made use of induction. We will show that multi-phase single-server queuing model is better in comparison to single server queuing model.

Keywords: *M/M/1 model, M/E_k/1 model, multi phase single server and single phase single server models*

Introduction

An ordinary situation that is occurring in daily life is of queuing either at bus stops, petrol pumps, cafeteria, ticket counters, hospitals, and bank counters, movie theatre and so on. Queues are also found in workshops where machines are waiting for repair; at a tool crib where the technicians are waiting to get their tools; in a store where things are waiting to be utilised, trucks are waiting to be unloaded, aero planes are waiting for runway for take-off or landing.

A queue is generally formed at a operation system when either customers requiring the service wait since the number of customers is more than the number of servers, or service facilities are not working efficiently to serve a customer.

Queuing theory is the study of queues as based on theory of probability, statistics and many other subfields of mathematics. The initiative following queuing theory is to suggest models to apply to justify queues and the processes behind them. In queuing theory, queues tend to be modelled by stochastic processes which are random functions based on probability distributions.

Queuing theory is the mathematical take a look at of the congestion and delays involved in waiting in line. It investigates each issue of ready in line to be served, which includes the advent system, provider process, variety of servers, wide variety of machine locations and the variety of "clients" (which is probably

people, information packets, cars, and so on.). As a branch of operations studies, it can help customers make knowledgeable business selections on a way to build efficient and value-effective workflow systems. Real-existence packages of queuing principle cowl a huge range of packages, along with how to offer quicker customer support, improve site visitors go with the flow, and effectively ship orders from a warehouse and the design of telecommunications structures, from networks to call centres.

Queuing theory tries to resolve problems primarily based on a scientific expertise of the issues and solving them in ultimate way in order that centres are fully applied and ready time is decreased to minimum feasible. Ready time (or queuing) concept fashions can advise arrival of customers to be serviced, putting in place of workstations and requirement of manpower and so on.

Queuing problems are not handiest in our each day situation of life and also in industries, like as in manufacturing, computer networking and telecommunications. They play an essential role for business process reengineering purposes in administrative tasks. Queuing model provides a powerful tool for designing and finding out the performance of queuing systems. When a customer arrives at a carrier facility, a number of them need to wait before they receive the favoured service. This means that the customer has to wait in a line for his/her turn. The customers pick out a queue of a server in keeping with some

mechanism. From time to time, insufficiencies in services occur because of an undue wait in provider can be due to new worker. Delays in service jobs past their due time may bring about dropping destiny commercial enterprise opportunities. The queuing models enable finding the proper stability between the fee of provider and the amount of waiting.

The idea behind this is a study of the number of waiting lines, or lines. A queuing model is created to predict line length and wait time. Queue theory is generally considered to be a branch of employment research because results are many times used when business decisions are to be made about the resources that will be needed to provide a service. Tracking line checks all queues to be visited, including the arrival process, service process, number of servers, number of system locations and "customer" number (i.e., people, data packets, vehicles, etc.)

Following the logic of problem-solving efforts which is based on the scientific understanding of the problems and how to solve them properly so that the facilities are fully utilized and the waiting time reduced to a minimum. Waiting time (or queue) theoretical models would recommend the arrival of customers for use, set up of equipment, staff demand etc. based on a theory of probability.

Emmanuel Ekpenyong[1] has extended and found out the improved performance measures of single queue single server to multi queue multi server with multiple phases. He has also used numerical illustration to prove the results.

S. Vijay Prasad , V.H. Badshah , Tariq Ahmad Koka[2] in their paper entitled Mathematical analysis of single queue multi server and multi queue multi server queuing models: comparison study have made comparison and proved that single queue multi server model is better than multi queue multi server model. Also, they have calculated the total expected cost and proved the result by comparing.

Priyangika J.S.K.C, Cooray T.M.J.A[3] in their paper 'Analysis of the Sales Checkout Operation in Supermarket Using Queuing Theory' have explained the analysis of Queuing systems for the empirical data of

supermarket checkout service unit using queuing theory. The advantage of studying queuing systems is to review the efficiency of the models in terms of utilization and waiting length and then increasing the number of queues so customers will not have to wait for more time when servers are very occupied. In other terms, to find out the waiting time and length of queue(s), is the main objective of this study.

Proposed Methodology and Discussion

We will have to make the following assumptions for queuing system in accordance with queuing theory.

1. Arrivals follow a Poisson probability distribution at an average rate of λ customers arriving per unit of time.
2. The queue discipline followed is First-Come, First-Served (FCFS) basis by all the servers. No priority is followed here.
3. Service times are exponentially distributed, with an average of μ customers per unit of time.
4. The queue length is of infinite capacity.
5. The servers work with their full capacity.
6. The average arrival rate λ is always greater than average service rate μ .
7. Service rate does not depend on length of queue; servers do not work faster looking at the length of queue.

Queuing Theory Models

M/M/1 queuing model:(single-phase single-server)

λ : Number of customers arriving per unit time

μ : Number of customers being serviced per unit time

$\rho = \frac{\lambda}{\mu}$: utilization factor

Probability of zero customers in the queuing system:

$$P_0 = 1 - \rho$$

The probability of having n customers in the system:

$$P_n = P_0 \rho^n$$

The average number of customers in the system (including queue and service)

$$L_s = \frac{\rho}{1-\rho} = \frac{\lambda}{\mu-\lambda}$$

The average number of customers in the queue (not the service)

$$L_q = L \times \rho = \frac{\rho^2}{1-\rho} = \frac{\rho\lambda}{\mu-\lambda}$$

W_q : The average waiting time in the queue: (not the service)

$$W_q = \frac{L_q}{\lambda} = \frac{\rho}{\mu-\lambda}$$

W_s : The average time spent in the system, including the waiting time (including queue and service)

$$W_s = \frac{L}{\lambda} = \frac{1}{\mu-\lambda}$$

M/E_k/1 queuing model:(multi-phase single-server)

λ : Number of customers arriving per unit time
 μ : Number of customers being serviced per unit time

The average number of customers in the queue(not the system)

$$L_{q1} = \left(\frac{k+1}{2k}\right) \left(\frac{\lambda^2}{\mu(\mu-\lambda)}\right)$$

The average number of customers in the system (queue as well the service)

$$L_{s1} = \left(\frac{k+1}{2k}\right) \left(\frac{\lambda^2}{\mu(\mu-\lambda)}\right) + \frac{\lambda}{\mu}$$

The average waiting time in the queue

$$W_{q1} = \left(\frac{k+1}{2k}\right) \left(\frac{\lambda}{\mu(\mu-\lambda)}\right)$$

The average time spent in the system, including the waiting time in the queue:

$$W_{s1} = \left(\frac{k+1}{2k}\right) \left(\frac{\lambda}{\mu(\mu-\lambda)}\right) + \frac{1}{\mu}$$

We shall show that the number of customers waiting in the system in multi-phase single-server model($M/E_k/1$) is less than single-server model ($M/M/1$)

$$\text{i.e., } L_s(M/E_k/1) < L_s(M/M/1)$$

$$M/M/1 : L_s = \frac{\lambda}{\mu-\lambda}$$

$$M/E_k/1 : L_s = \frac{k+1}{2k} \frac{\lambda^2}{\mu(\mu-\lambda)} + \frac{\lambda}{\mu}$$

We will prove by induction

The result holds for $n=1$ by simple calculation

Suppose $P(n)$ is true

$$\text{i.e., } \frac{n+1}{2n} \frac{\lambda^2}{\mu(\mu-\lambda)} + \frac{\lambda}{\mu} < \frac{\lambda}{\mu-\lambda}$$

Now, we shall show that $P(n) \Rightarrow P(n+1)$

$$\text{We want to show that } \frac{(n+1)}{2(n+1)} < \frac{n+1}{2n}$$

$$\text{i.e., } \frac{n+2}{2n+2} < \frac{n+1}{2n}$$

$$\text{It is sufficient to show that } \frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$$

$$\text{Now, } \frac{(n+1)(2n+2) - 2n(n+2)}{2n(2n+2)}$$

$$= \frac{2n^2+2n+2n+2-2n^2-4n}{2n(2n+2)}$$

$$= \frac{1}{n(2n+2)} > 0$$

$$\text{So, } \frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$$

$$\text{Therefore, } \frac{n+2}{2n+2} < \frac{n+1}{2n}$$

$$\frac{n+2}{2(n+1)} \frac{\lambda^2}{\mu(\mu-\lambda)} < \frac{n+1}{2n} \frac{\lambda^2}{\mu(\mu-\lambda)}$$

$$\frac{n+2}{2(n+1)} \frac{\lambda^2}{\mu(\mu-\lambda)} + \frac{\lambda}{\mu} < \frac{n+1}{2n} \frac{\lambda^2}{\mu(\mu-\lambda)} + \frac{\lambda}{\mu} < \frac{\lambda}{\mu-\lambda}$$

So, $P(n+1)$ is true

$$\text{Hence, } L_s(M/E_k/1) < L_s(M/M/1)$$

We shall show that the prove that the number of customers waiting in the queue in multi-phase single-server model ($M/E_k/1$) is less than single-server model ($M/M/1$)i.e., $L_q(M/E_k/1) < L_q(M/M/1)$

$$M/M/1 : L_q = \frac{\lambda^2}{\mu(\mu-\lambda)}$$

$$M/M_k/1 : L_q = \frac{k+1}{2k} \frac{\lambda^2}{\mu(\mu-\lambda)}$$

We will prove by induction

The result holds for $n=1$ by simple calculation

Suppose $P(n)$ is true

$$\text{i.e., } \frac{n+1}{2n} \frac{\lambda^2}{\mu(\mu-\lambda)} < \frac{\lambda^2}{\mu(\mu-\lambda)}$$

Now, we shall show that $P(n) \Rightarrow P(n+1)$

$$\text{We want to show that } \frac{n+2}{2n+2} < \frac{n+1}{2n}$$

$$\text{i.e., } \frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$$

$$\text{Now, } \frac{(n+1)(2n+2) - 2n(n+2)}{2n(2n+2)}$$

$$= \frac{2n^2+2n+2n+2-2n^2-4n}{2n(2n+2)}$$

$$= \frac{1}{n(2n+2)} > 0$$

$$\text{Hence, } \frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$$

$$\text{So, } \frac{n+2}{2n+2} < \frac{n+1}{2n}$$

$$\frac{n+2}{2n+2} \frac{\lambda^2}{\mu(\mu-\lambda)} < \frac{n+1}{2n} \frac{\lambda^2}{\mu(\mu-\lambda)} < \frac{\lambda^2}{\mu(\mu-\lambda)}$$

Therefore, $P(n+1)$ is true

$$\text{Hence } L_q(M/E_k/1) < L_q(M/M/1)$$

(iii) We shall show that the waiting time of customers in the queue in case of multi-phase single server($M/E_k/1$) is less as compared to single server model ($M/M/1$)i.e., $W_q(M/E_k/1) < W_q(M/M/1)$

We will prove by induction

The result holds for $n=1$ by simple calculation

Suppose $P(n)$ is true

$$\text{i.e } \frac{n+1}{2n} \frac{\lambda}{\mu(\mu-\lambda)} < \frac{\lambda}{\mu(\mu-\lambda)}$$

Now, we shall show that $P(n) \Rightarrow P(n+1)$

We want to show that $\frac{n+2}{2n+2} < \frac{n+1}{2n}$

i.e. $\frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$

Now, $\frac{(n+1)(2n+2) - 2n(n+2)}{2n(2n+2)} > 0$

$= \frac{2n^2 + 2n + 2n + 2 - 2n^2 - 4n}{2n(2n+2)} > 0$

$= \frac{1}{n(2n+2)} > 0$

Hence, $\frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$

So, $\frac{n+2}{2n+2} \frac{\lambda}{\mu(\mu-\lambda)} < \frac{n+1}{2n} \frac{\lambda}{\mu(\mu-\lambda)}$

$\frac{n+2}{2n+2} \frac{\lambda}{\mu(\mu-\lambda)} < \frac{n+1}{2n} \frac{\lambda}{\mu(\mu-\lambda)} < \frac{\lambda}{\mu(\mu-\lambda)}$

Therefore, $P(n+1)$ is true

Hence $W_q(M/E_k/1) < W_q(M/M/1)$

(iv) The waiting time of customers in the system in case of multi phase single server ($M/E_k/1$) is less as compared to single server model ($M/M/1$) (i.e., $W_s(M/E_k/1) < W_s(M/M/1)$)

We will prove by induction

The result holds for $n=1$ by simple calculation

Suppose $P(n)$ is true

i.e. $\frac{n+1}{2n} \frac{\lambda}{\mu(\mu-\lambda)} + \frac{1}{\mu} < \frac{\mu}{\mu(\mu-\lambda)} + \frac{1}{\mu}$

Now, We shall show that $P(n) \Rightarrow P(n+1)$

We want to show that $\frac{n+2}{2n+2} < \frac{n+1}{2n}$

i.e. $\frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$

Now, $\frac{(n+1)(2n+2) - 2n(n+2)}{2n(2n+2)} > 0$

$= \frac{2n^2 + 2n + 2n + 2 - 2n^2 - 4n}{2n(2n+2)}$

$= \frac{1}{n(2n+2)} > 0$

Hence, $\frac{n+1}{2n} - \frac{n+2}{2n+2} > 0$

So, $\frac{n+2}{2n+2} \frac{\lambda}{\mu(\mu-\lambda)} < \frac{n+1}{2n} \frac{\lambda}{\mu(\mu-\lambda)}$

$\frac{n+2}{2n+2} \frac{\lambda}{\mu(\mu-\lambda)} + \frac{1}{\mu} < \frac{n+1}{2n} \frac{\lambda}{\mu(\mu-\lambda)} + \frac{1}{\mu} < \frac{\mu}{\mu(\mu-\lambda)} + \frac{1}{\mu}$

$\frac{1}{\mu}$

Therefore, $P(n+1)$ is true.

Hence $W_s(M/E_k/1) < W_s(M/M/1)$

Conclusion

We could compare and prove that multi-phase single-server model is better than single-server model. The waiting time of customers is less in multi-phase single server model rather than single server model. As the waiting time is reduced, we can also see and prove by the use of mathematical induction that the number of customers waiting in the queue is also less in multi-phase single server model.

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