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Number of research papers published per teacher in the Journals notified on UGC website during the last five years

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Number of research papers in the Journals notified on UGC CARE list year wise during the last five years.

Years	2022-23	2021-22	2020-21	2019-20	2018-19
No. of Research Papers	08	03	02	02	06


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MEDIA COMMUNICATION

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Abstract:

Media plays a prominent role in society. It duly registers the metamorphosis of socio, political and cultural climate. The paper widely discusses the theories of dialogism and dialectic process adopted in media interviews and debates today. Interviews and debates in media are formulated by the process of communication that includes encoding and decoding of messages. Great thinkers and researchers of humanities show keen interest to explore how the messages are encoded and decoded complementing the socio-cultural-political environment of the contemporary society. The paper refers to the popular authors who penned their views on Encoding and Decoding of messages in media. A theoretical approach to encoding and decoding pertinent to production, dissemination, and interpretation of messages that offered a base paving ways to the new dimension of study pertaining to communication and technology are illumined in the paper. The paper focuses on how the approach of visual media is diverse from print media and its stronger impact on the psyche of the audience.

Keywords: media, encoding, decoding, messages, society.

Encoding and decoding of messages in Media:

The process of communication is firmly embedded in encoding, decoding, and feedback of a message. In this process, verbal and nonverbal communication plays a major role. Print media is built on language excellence and visual media ineluctably combines verbal and non-verbal components. The sender and the receiver are the two major participants in communication. In the visual media like television, the processes of encoding and decoding messages are multi-layered. The debates are necessarily the byproduct of encoding and decoding. Debates connect people from varied backgrounds and tend to establish a communication link. Debates also illumines different perceptions sometimes kindles the intellectual and emotional quotient and avert the public from the parochial approach. But many a time debates become a verbal battle where the speakers fail to have an open-minded approach. Socio-cultural background of the people conditions encoding and decoding of messages. The process of encoding and decoding is not something new as communication is capsulated in the exchange of messages. Hence the components of communication are not autonomous; they are always closely associated with socio cultural-political environment. Visual Media uses different channels to communicate a message say, Interpersonal, group and mass communication.

Conducting Interviews with popular icons is one of the persuasive techniques of visual media to attract the viewers. The main objective of media is to establish a smooth communication link with the public and interview is one of the techniques of interpersonal communication as messages are exchanged between the two individuals. This technique of interpersonal communication is firmly anchored in the philosophical concepts of dialogism and dialectics. According to Kent and Taylor (1998), "dialogue is the product rather than process" (p.323) and observed the symmetrical model as a procedural way to listen and seek feedback. Thus the process of dialogism is the fundamental characteristic of interviews considering the communication link between two individuals exploring and discussing the nuances of a particular topic that may ignite interest among the viewers.

Richard Sennett, one of the distinguished sociologists affirms the significance of dialogism for better communication. In his book *Togetherness*, he suggests that dialogism is essential for a harmonious society. The dialogic process is more applicable than the dialectic process in media interviews as the former process is more conducive considering open-ended dialogue between two individuals would establish a congenial atmosphere for better communication.

The dialectic process presents two conflicting ideologies and tries to arrive at a logical conclusion through discussion, in other words, this method presents the unity of opposites.

This method is more applicable in debates where people argue and illumine conflicting perceptions to convince the other.

Media interviews are dialogic where the interviewer engages in informal conversation with the interviewee to pool out information that appeals to the dominant and hegemonic group. It is always a challenging task for both the interviewer and the interviewee as many a time messages are misinterpreted placing the sender and the receiver in a complex situation. This communication oscillates between the self and other. The dichotomy of self is more pronounced only in relation to the other. Hence, the consciousness of the otherness is dialogism that gives a lead to the interview. Interviewer takes cognizance of the other where messages travel from the center to the peripheral objects to evoke hidden emotions in the subconscious mind of the interviewee.

An interviewer in visual media attempts to elicit an expected response from the interviewee. The binary presentation of self and other is much ubiquitous in such interviews that provide a base for better communication. Apparently, interviews in media are projected as nothing but a formal dialogue between two individuals. But viewers with an analytical mind could easily detect the politics of communication that enshrouds the interview session. With the marvellous growth of science and technology, interviews in television, for instance, have become a ground of power struggles in other words, the viewers watch the program as they watch a tennis match where the messages are thrown at each other with vigor and anxiety striving to elicit sensational information that may attract the viewers. The power of self is much evidence that controls the other. Hence, the conscious of the self may dominate either the interviewer or the interviewee. It depends on the individual traits of the participants of the interview.

There exists a thin veil between self and ego. Inflated self-worth results in ego that make a person intoxicated with the term 'I' but this term is a key to open a conversation or a discourse that shifts to 'You'. Hence, the power politics between 'I' and 'You' can be easily decoded by the viewers.

The aim of the interview is to kindle emotions and interest of the viewers. Here the interviewer becomes the producer of the message projecting collective consciousness to elicit the expected response from the interviewee. An interview session is loaded with an exchange of messages between two personalities oscillating between 'I' and 'You'. The interviewer begins his/her interview with 'I' duly registering the motive of the program. Here, but the message slowly shifts from 'I', to 'You' to establish a comfortable atmosphere to allow the communication to flow smoothly and reach the viewers effectively.

The below-cited points are some of the tactics adopted by the interviewer, Studying the interviewee closely to gauge his/her strength and weakness.

Focusing on three P's that is Planning, Presentation, and Preference for the effective preamble to lead the audience to watch the show.

Surreptitiously registering the motif the program paving to the verbal battle between the self and other to make the program interesting.

Bombarding the interviewee with a series of questions many a time placing the interviewee at disadvantage.

Both the interviewer and interviewee constantly try to protect their self-image. Here only the strong-willed with commendable communication skills could encode the message effectively. When the interviewer asks questions he/she becomes the encoder and when the interviewee answers he/she first decodes the message and then gives proper feedback. While giving feedback the interviewee becomes the encoder of the message.

Verbal and nonverbal communication:

Both verbal and nonverbal communication dictates an interview or debate sessions. Body language gives a key to a personality; hence the viewers could surmise the personality of the interviewer and interviewee through their body language.

Training sessions and programs are conducted to give cues on body language to the aspirant media trainees before facing the camera. An appropriate eye contact, a confident handshake, and posture impress the viewers. Grant Ainsley, who writes a weekly blog on the news media and communication, observes that many a time people do not know what to do with their hands when they speak to media. Especially while answering questions. The media experts educate the trainees on the techniques of controlling body language during interviews and presentations.

Language is one of the most essential tools to be honed by a media aspirant. On many occasion, politics of language is more vibrant to make news sensational. Aamir Khan's interview on Intolerance triggered debates on media registering for and against his views. Mr. Shashi Tharoor's Hindu Pakistan phrase has ignited sensational debates in media. Nirmala Seetharaman's, Defense Minister of India registers her views by coining a term, Muslim-dhari in media to raise an objection to Tharoor's remarks. Media has become a ground for the verbal battle to entice the public. This lucidly reveals the political climate of India today. Language is one of the powerful weapons of Public Persona to capture the attention of the people.

The language used in media complements the situation. For example, the word deluge was widely used during floods in Mumbai in 2005, where even people with minimum language proficiency were able to understand the term. Contextualization of language is one of the

major factors of media. The news published/ telecasted in media captures the zeitgeist of the modern era.

Zeitgeist: The term Zeitgeist ('zartgaist) refers to the spirit and or identity of a particular time period. Zeitgeist is a concept or trend that reflects on the mindset of the people of a particular time. It is a concept from 18th to 19th century German Philosophy that indicates the spirit of the time. This term is derived from the German language, Zeit means time and Geist means spirit or ghost. Media communication grasps the zeitgeist of popular culture to reach the public in other words the media is adept at reading the pulse of the public interest. A thorough perusal of the history of media communication illumines the general set of ideas, beliefs, feelings duly reflecting the cultural environment of a particular period.

The news published after India attained Independence evinces the zeitgeist of the freedom struggle. The headlines in The Hindustan Times weekly, on 17th August 1947 thus read, "Scenes of splendor in the Capital", this vividly portrays the cultural environment of the period. The readers from later ages can easily construe the spirit of the time. Newspaper headlines omit articles like a, an or the but the aforementioned headlines do have an article the that lucidly depict the linguistic behavior of the period in 1947.

Conclusion: Converging public less than one canopy is the main objective of media and the massive growth of science and technology has provided a firm base to create awareness of various issues that affect society. Media communication plays a significant role in registering the major events of the contemporary period. Communication is an ongoing process paving the way for the evolution of language and media communication is a knowledge bank where the aspiring scholars can capture the pulse of the historical past by going through records. Media duly registers the capricious elements of communication process over the period of time. However, the communication link is the pillar of every society and media endeavors to cater to the expectations of the public through feasible dialogue. Media ineluctably engages in dialogue with the other by eliciting the consciousness of the others where a message travels from individual consciousness to collective consciousness.

But when it comes to ethics in media, the viewers are dubious owing to the commercial environment. Modern society is bombarded with the colossal growth of modern technology where the politics of communication is very prevalent. Every event is politicized in media but at the same time, media plays a vital role in sensitizing the public with relevant information.

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TYPES AND TECHNIQUES OF INTERVIEW

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Abstract:

Every aspiring candidate has to face interviews for better career prospects. Types and techniques of interviews have been evolved during the period of years owing to the development of technology. The paper illumines different types and techniques of interview. The paper also provides useful tips regarding preparation of candidates for an interview. Interview is a two way communication process where the interviewer and the interviewee engage in the process of encoding and decoding. Verbal and non verbal communication is two important factors to be focused in an interview. It is important for the candidates to be abreast of the types and techniques of interview. Language and communication is not stable and always undergoes a change complementing the socio cultural situation. Both the interviewer and the interviewee should be well prepared for better results.

Keywords

techniques, profession, communication, interview etc

Types and Techniques of Interviews

When two persons happen to meet, they engage in dialogue. What is dialogue? Dialogue means conversation between two persons. Face to face communication between two persons is called

interpersonal communication. Interpersonal communication may be formal or informal. Conversation between two friends or colleagues is informal. Conversation is a talk, an informal one, between two or more people, in which messages are interacted. Formal interaction between two people with a purpose is called interview. The term 'inter' means between two objects or people and 'View', means reading or analyzing the quality and capacity of the other. Hence interview is face to face, oral and interpersonal communication where two involved participants view and assess each other through interaction. The two participants engage in the interview process are *the interviewer and interviewee*. Broadly speaking, the term interview is closely associated to job interviews. The person who conducts the interview is called *interviewer* and the candidate who attends the interview is called *interviewee*. During the interview, the interviewer asks probing questions to the interviewee to find out if the candidate is suitable for the post.

Every aspiring candidate has to face interviews to climb up the ladder of successful career. Interview is a face to face, two way and oral communication. Interview is conducted either by an individual or by a committee. When a company is run by a sole proprietor,

interview is conducted by the proprietor of the company. In case of big organization, interview is conducted by a *Panel* of experts. This panel comprises of experts from different fields who ask probing questions to the interviewee. The interview panel is also the Selection Committee playing major role in selecting suitable candidates for the post that is vacant in the company. Both the interviewer and the interviewee have to be well prepared before facing the interview.

Group Interviews

A Group interview is also known as a panel interview. This technique is different from interpersonal interview as it is conducted along with a group of candidates who are vying for the same position. All candidates in the group are interviewed simultaneously. Hence, candidates may feel nervous and intimidating while being interviewed openly amidst a group of candidates. But good preparation and good communication skills boost the confidence of the candidates to perform better in group interviews. The interviewers observe the response, reaction of the candidates registering the communication skill of the candidates before a group. Companies conduct group interviews widely to screen the job applicants and to review the candidates' performance in group as team work plays a major role in work place.

There are two types of group interviews

A Candidate Group: In this interview, all candidates are put together in a room and general information like job responsibilities and policies of company are briefed to the candidates. Candidates are expected to answer the questions

directed to them and the interviewers observe group communications skills of the candidate.

A Panel Group: This interview is conducted by a group of experts. The Panel comprises of two or more experts from various fields. This type of group interview always a question and answer session and the candidates may also be asked to participate in some type of exercise or test that simulates potential environment of the candidates.

Preparation of the candidates for Group Interviews

□ Dress and grooming plays a vital role in interview. Therefore the candidates should wear neat and clean dress with minimum make up. Formal attire of the candidate will

make good impression to the interviewers.

□ The candidates may shake hands with everyone present in the room.

□ Special attention should be given for the Presentation Skills. The candidates should answer in clear, audible voice with confidence.

□ The candidates should listen properly to the questions asked by the members of the panel before answering.

□ Candidates should have eye contact with the interviewer while answering to the questions.

□ Specific skills for group interview include decent appearance, proper listening, following instructions and clarity of expression of ideas. □

□ Before leaving the interview room, the candidates should not forget to thank the interviewers. Parting is a very important technique of interview. Candidates can shake hands with the interviewers before leaving the interview room.

Conduct of the interview

1. The interviewer should know the nature of post that is vacant i.e. whether the post is permanent or temporary.
2. The interviewer should have knowledge about the remuneration and job responsibilities of the post.
3. The interviewer should provide comfortable environment for the candidates.
4. If the interview is conducted by the Selection Committee then each member of the selection committee should be provided the copy of resume and application of all the candidates.

Technique of WASP

WASP is a technique adopted by the interviewer while conducting the interview.

W stands for Welcoming the candidate.

A stands for Acquiring information from the candidates pertaining to family background, curricular and extracurricular activities, hobbies etc.

S stands for Supplying information to the candidates regarding job responsibilities, remuneration of the post, Company's Policies and Objectives.

P stands for Parting. When interview comes to an end the interviewer should

make the parting in a friendly manner. He/she may add a friendly remark, 'Thank you, we will contact you if you are shortlisted'.

Preparation of the interviewee

Facing interview will be easier if the interviewee plans and prepares for the interview.

Planning and preparation should focus on the following facts:

1. The interviewee should first of all arrange all the certificates and credentials sequence wise in a clean file.
2. Interview letter should be perused thoroughly ensuring the date, time and venue of the interview.
3. Dress and grooming is the important ingredient for the successful interview. Interviewee should wear neat and clean formal dress. Hair properly trimmed. Good appearance certainly wins extra points to the interviewee at the time of interview.
4. The interviewee should reach the venue of the interview half an hour earlier to get sufficient time to relax and mentally prepare to face the interview.
5. The interviewee should enter the interview room after lightly knocking the door taking permission from the interviewer.
6. Good smile always pleases people and creates a good impression on the interviewee and the answers of the interviewee should be given in clear, audible voice.
7. Eye contact without glaring shows confidence of the interviewee.
8. The interviewee should be calm, composed and honest in presentation of facts.

9. Over communication may irritate the interviewer hence the answers should be given in brief after listening to the questions properly.

Types of Interview

The Selection Interview

The interviewer should adopt the technique of WASP at the time of interview. The objective of the selection interview is to choose the right candidate for the post. The process of a Selection Interview involves two participants, the interviewer and the interviewee. The interviewer is the one who conducts the interview and put across the requirements of the company and the interviewee is the one attends the interview trying to convince the interviewer that he/she is the suitable candidate for the post that is vacant in the company. During the Selection Interview, the interviewer should create a comfortable atmosphere for the interviewee. The technique of selection process differs from one interview to another depending on the interviewer. Therefore no two selection processes are identical. The interviewee has to learn to adapt to unexpected situations all the time. In the Selection Interview the organization attempts to pick and select the suitable candidate from among the many candidates who are invited for the interview. The candidate on the other hand can judge whether the job requirements and offer reaches to his/her expectations or not. The selection interview is therefore a formal meeting between the employer and the employee to get acquainted with each other before entering into any agreement.

The online Interview

An online interview is conducted using computer-mediated communication (CMC) such as instant messaging, email and video. The process of online interview is like offline interview where the interviewer asks probing questions to the candidates to assess their ability. The online interview can be Synchronous or Asynchronous. *Synchronous:* The interview is synchronous if it is conducted in real time. Skype interview is face to face and direct using computer as a medium of communication conducted in real time. Another way of conducting synchronous interviews online is using WebRTC, a web browser (Firefox, Chrome or IE) acts as a client and both the interviewer and the interviewee can connect over a real time video chat. *Asynchronous:* An asynchronous online interview takes place when the interviewer and interviewee are not online at the same time. This interview uses email sending a set of questions to the candidates who will answer at their convenience. The main advantage of this type of interview is that the candidates get sufficient time to answer the questions.

However, this type of interview is time consuming as the candidates may not have the dedication to follow a specific block of time. Hence the completion of the process requires high level of dedicated participation from the candidates.

Appraisal interview

The word appraisal means evaluation, assessment, review or judgment. An appraisal interview is conducted between an employee and the manager at regular intervals. During this

interview the superior discusses job expectations, work performance and possible areas of growth with the employees. This interview is a two way communication process that allows both the participants to assess the work performance of the past and plan for the future. These interviews are conducted on a regular basis to give feed back to the employees regarding their work performance and ensure the employees that they stay on track with the expectations of the company. This interview also gives a chance to the employee to explain and give reasons about any poor performance that has been noted. The employee can also discuss his future career prospects where the manager can inform to the subordinate if there is any significant changes in the policies of the company. Hence, if this interview is conducted properly, it certainly offers a chance for thoughtful communication between the superior and the subordinate facilitating better communication.

Exit interview

When the employee leaves the organization, the exit interview is conducted to get the feedback from the employees about the working conditions and company policies. Generally human resource panel conduct this interview to gather information from departing employees about day-to-day activities of the company. This interview is useful for the management to understand the plus and minus points of the company which will be helpful towards improving, hiring and employee retention. The employee may give his/her honest opinion about the job as he or she is leaving the organization.

Grievance interview

Grievance is a formal complaint which demonstrates any kind of dissatisfaction that an employee has towards his work. Grievances of the employee mainly focus on the following issues.

1. Poor relations with the team members or the head.
2. Lack of confidence.
3. Lack of proper infrastructure.
4. Lack of basic amenities in the office like unhygienic environment, safety issues etc.

Some organizations allow employees to see the higher officials directly to express their grievances at the work place. The grievance interview is an upward communication where the employee communicates with the superior. This interview is possible only when the superior adopts open door policy which gives opportunity to the employees to meet their superiors. In many organizations such opportunities are rare. This interview helps the superior to find out the barriers that affect the work performance of the employees.

This interview allows the employee to share his/her grievances with the superior without any reservation. The superior should win the confidence of the employee and provide comfortable environment for the employee so that he/she can share the grievances frankly. This interview has the following advantages:

- a) It improves employer-employee relations.

- b) The grievances of the employee may help the superior to tackle important issues on time.
- c) Further developments in working conditions of the employee are possible.
- d) It facilitates vertical communication.
- e) Important issues may be brought to the notice of the superior.
- f) It helps to identify the areas that need improvement.

Stress interview

This interview is conducted to assess the mental and emotional stability of the candidates. Some jobs need emotionally stable candidates. For example, the candidates who apply for the post of teachers, doctors, and police have to be emotionally and rationally balanced to deal with crisis with competence and expertise. In this interview, the interviewer may ask intentional intimidating questions to the candidates and subject them to psychological stress in order to check if the candidates crack, remain calm or thrive under pressure. The reactions of the candidates are duly observed by the interviewer which provides a key to the competent level of the candidates during trying situations. Interview is subjective depends on the psyche of the interviewer. Hence interviewing techniques may differ complementing the mindset of the interviewer. The candidates should be adept at understanding the interviewer and respond accordingly. Presence of mind and self confidence would enable the candidates to pass interviews successfully.

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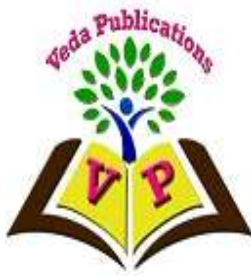


SOCIO CULTURAL IMPACT ON DECODING MESSAGES: FROM LITERATURE TO COMMUNICATION

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ABSTRACT



Communication barriers and miscommunication is a common phenomenon in a heterogeneous society. Globalization has converged varied culture groups complementing the social environment of communication. Hence the process of communication depends on cultural and social climate. The paper focuses on trajectories of decoding messages pertaining to psychological, social, and cultural background. Encoding, decoding and feedback are the major ingredients of communication. Communication is successful only when the message is decoded properly by the receiver. Communication process becomes complex in multicultural environment when the sender and the receiver from different culture groups happen to communicate with each other. Thus on some occasions cultural differences impede mutual understanding. The paper cites suitable examples to illumine the variants of interpretation of messages leading to complexities and perplexities. The paper also widely discusses how a message is decoded and recoded based on the interpretation of a message. The paper pegs Shakespeare's play *Othello* and the renowned Tamil novelist Rajam Krishnan's novel *Verukku Neer* (Water for the roots) and attempts to analyze the socio cultural impact on the psyche of a person.

Keywords: *Culture, Decoding, Feedback, Message, Communication.*

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INTRODUCTION

Churchill once observed, "The United States and Britain are two great nations divided by a common language." Churchill's quip is an ironic reminder of the challenge of cross-communication that even when two people speak in the same language, cultural differences can impede mutual understanding. From literature to communication wrong interpretation of messages lead to misunderstanding which many a time mars the peace and harmony of the society. The process of communication blends verbal and non verbal ingredients. Messages are decoded and recoded based on the inferences pertaining to psychological and socio cultural environment.

SOCIO CULTURAL IMPACT

For instance, the play *Othello* depicts the impact of misunderstanding and miscommunication where the assumptions are made based on the determinants of the environment. These determinants influence the psyche of a person. The environment is conditioned by external components which sometimes consciously manipulate humans. There exists a tacit link between the manipulator and environment which becomes more eloquent than verbal communication. Iago in the play *Othello* sows the seeds of suspicion on Othello against Desdemona and he is able to succeed to a greater extent when Othello kills his fair wife suspecting her chastity. Iago exploits the xenophobic attitude of Desdemona's father towards mixed race.

He thus weaves a vicious web,

IAGO:

Call up her father,
Rouse him. Make after him, poison his delight,
Proclaim him in the streets; incense her kinsmen,
And, though he in a fertile climate dwell,
Plague him with flies. Though that his joy be joy,
Yet throw such changes of vexation on 't
As it may lose some color. (1.1.74-80)

Poison, plague, vexation are the most disparaging terms that may corrupt the psyche of a listener. Both verbal and non verbal components are used to debauch Othello's psyche. Othello, the recipient of Iago's manipulations falls into the trap as

envisaged. Othello asks Iago for *Ocular Proof* and Iago first sows the seeds of suspicion through Brabantio to taint Desdemona's character when Brabantio warns Othello, "She has deceived her father, and may thee" (1.2.289). The seed suspicion on Desdemona further disseminated through ocular proof orchestrated by Iago when he stealthily points out to Othello that Cassio has been wiping his beard with a handkerchief printed with strawberry. Othello replies caustically that it has been his gift given to his wife Desdemona. The web of suspicion has been surreptitiously weaved around Othello to such an extent that he murders his wife thinking that she is unfaithful to him. The inferences he derive complements the situation which is consciously constructed by Iago. The motif of the entire play is pivoted on Othello's inferences on Desdemona. Inferences are one of the major sources of decoding.

INFERENCES

Inferences are steps for reasoning and deriving logical conclusion from premises known to the decoder. Inferences are closely associated to the psychological climate of the receiver. And the psychology of a person is bombarded by various environmental factors through which he/she has travelled. The conclusions derived through inferences may be correct or incorrect. An incorrect conclusion is known as fallacy. The fallacy of judgment of Othello on his wife's character is the motif of the play. Messages are decoded based on the psychology of a person who succumbs easily to circumstantial evidence. A strong mind with trust and integrity cannot be easily thwarted but a character like Othello who had already suffered from humiliation further fueled by Iago to a greater extent that he murders his beautiful wife. Othello's older years, his lack of *gentility*, and his status as foreigner propel him to suspect Desdemona's chastity. Othello is the play that transcends time and place. Even today a suspicious husband is a great threat to his wife. Messages are decoded based on socio cultural environment. Hence, Othello easily falls prey to Iago's malice. The play reverberates with cross cultural tensions. The English being proud of their fair complexion demeans the dark by derogatory terms. The play



depicts the mindset of the English during the Elizabethan age. Though Shakespeare has been criticized for racism, the play does project the positive side of Othello when he has been transformed from an intimidating moor to a respected soldier and nobleman. English society disapproves the wedding of Othello and Desdemona as they perceive their marriage as an act *against all rules of nature*. (act 1.3, line 102). Shakespeare implicitly accentuates the fact that one should not judge a person by their appearance. But consciously fabricated situation may blur the truth enslaving people to negative emotions.

Discrimination pertaining to race, caste and class is a common despicable phenomenon in and around the world. These discriminations create stratification in a society. Messages are encoded, decoded and recoded based on the social structure. Othello is the play that illumines repercussions of racial discrimination. India is a multilingual society where castes play a dominant role. Caste discrimination is one of the social evils tend to marginalize a particular section of a society. Great thinkers, writers and social workers fight for equality. Rajam Krishnan, a renowned writer of Tamil Nadu widely discusses social issues in her novels. *The Hindu*, one of the widely read newspapers in Tamil Nadu observes, "While she never identified herself a feminist, her short stories were mostly women-centric, addressing issues that no one spoke of in her time." Her novels focus on the marginalized section of people and unveil the complexities of life meted out by them owing to caste discrimination.

Verukku Neer is a novel penned by Rajam Krishnan exploring Post Colonial India duly taking cognizance of the western influence in the Indian society. The novelist keenly observes the changes that occur in Indian society after independence. Yamuna, the protagonist of the novel, being imbibed with *Gandhian* principles struggles to adjust in the materialistic society where western ideologies are adhered blindly. She marries Durai, an engineer from tribal community. Though Durai is well educated, he suffers from complex. He once buys imported China silk saree for her but she rejects his gift. He decodes the situation in the canvas of caste discrimination. He

firmly affirms that since Yamuna is from upper caste is impertinent to him. The gulf between them widens. When Durai visits Yamuna's uncle's house, caste discrimination is more evident when he is asked to sit in the *veranda* of the house and served water in a cup kept separately for *others*. These *others* are none but the marginalized section of people. Yamuna apologizes to Durai and tries pacifying him. But Durai's mind gets infected with such social discrimination that prevails in India therefore he fails to understand Yamuna's virtues.

Further interpretation can be derived through non verbal communication. India is placed in high context culture where messages are implicitly conveyed. By offering water in a cup of low quality implicitly confirms that the receiver is not treated equally. These types of cultural politics certainly affect the psyche of the recipient.

Reading between the lines is one of the major aspects of decoding. In verbal communication connotation and denotation are the two requisites that help decoding messages. Denotation gives literal meaning to a word that is explicit and straight forward. But connotation is associated to different layers of meaning. The process of reading between the lines is active in connotative words. Though the encoder and decoder happen to communicate in a common language, many a time communication barriers arises owing to varied cultural and traditional background.

Erin Meyer in her book *The Culture Map* expounds the theory of decoding messages in high and low context cultures. India and china are placed in high context culture where messages are conveyed implicitly. The process of reading between the lines is very important in high context culture. United States, Germany are placed in low context culture. Messages are conveyed explicitly in a simple and straight forward manner. Erin Meyer recalls her interview with Pablo Diaz, a Spanish executive working for a Chinese textile company for fifteen years who shares his experience in China, "In China, the message up front is not necessarily the real message. My Chinese colleagues would drop hints and I wouldn't pick them up. When thinking it over I would realize that I had missed something important" (Meyer, 48-49). Decoding messages in high context culture is a



complex process and one has to be conversant with the cultural behavior of the locals.

CONCLUSION

Stratification in the society prevails all over the world. Though great philosophers and thinkers try to eliminate the hierarchical structure of a society, it is a herculean task as both the encoder and decoder of communication are highly influenced by social and cultural environment. Othello fails to realize the sublimity of Desdemona as his mind is loaded with preconceived notions. He decodes and recodes the messages based on his past experience. Durai, in *Verrukku Neer* (water for the roots) represents the oppressed class fails to understand his wife's good qualities. The parochial attitude of people fuels bias and prejudice in the society resulting in racial and communal violence. Encoding and decoding messages are closely associated with nature and culture of people. Hence one has to be conversant with culture and practice of a society. Literature illumines trajectories of communication variants which prevail in a society. Literature and communication complements each other educating the readers to understand the cultural environment of a contemporary society and its subsequent impact on encoding and decoding messages across culture and tradition of a society. The literary works referred in the paper lucidly reveals the fact that many a time people are enslaved by situations irrespective of caste, culture and creed.

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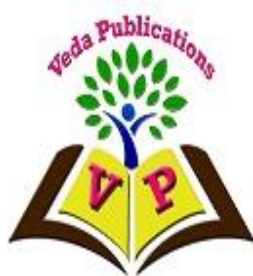
A GLIMPSE ON INTRICACIES OF ENGLISH LANGUAGE COMMUNICATION

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ABSTRACT



English Language is widely spoken language all around the world and it has become an assistant language in many countries. English binds people from different countries and acts as bridge for better communication. It is also *Library Language* as maximum reference books are written in English. World is suffused with myriad of religions and cultures and it creates a great impact on English which has been tuned as per the socio cultural environment. During the last three decades people witness evolution of the language complementing the socio cultural and political environment. One of the major aspects of English is that it has liberally borrowed words from the other languages for enrichment. To study the transmutation of English vocabulary over a period of time is an enticing subject to some of the research scholars today.

Hence the paper deals with the dynamic aspect of communication that constantly undergoes a change owing to socio cultural and political manifestations. The paper highlights the intricacies of communication to drive home the fact that communication is the base of success for both personal and professional growth and being conversant with the metamorphosis of communication is mandatory for the young aspiring professionals. The paper further attempts to illumine the evolution of language today in the age of Globalization and technology. Selected vocabulary is pecked for semantic analysis. Further the paper discusses about Jargons embedded in varied culture. Use of Euphemisms is more common today that lucidly reveals the mindset of the people today. This paper is based on empirical study.

Keywords: *English, language, communication, vocabulary, culture.*



THE ORIGIN OF ENGLISH LANGUAGE

The origin of English language can be traced to mid 5th to 7th centuries with the arrival of Germanic tribes, the Angles, the Saxons and the Jutes who invaded the Britain. English Language can be celebrated as the *Language of the Elite and Power* owing to the colonial expansion of the British during 17th and 18th centuries. The British colonies had to learn the language during the colonial rule for exchange of information. Every nation under the British rule absorbed the language pertaining to their culture and practice.

After the independence of India, there was a speculation regarding retaining of English language. The constitution of India designates English as an official language along with Hindi. Books and articles written in Post colonial India lucidly reveal the significant status of the English language in India. The language is widely used by the dominant and elite groups.

English was taught in India so that the British could communicate with the locals with ease. But this language was the important tool to bring people together from the different parts of the country during the freedom struggle. Exposure to English provided the opportunity to the Indians to gain knowledge about the world. This knowledge sowed seeds for freedom struggle.

SOCIOLECT: The hierarchical structure of the Indian society has a strong impact on the language pertaining to socio economic status of the people. The culture of addressing the higher official as *sir* is a common practice in India. *Sir* is the respectable term used to address a person holding high office. There is also another interpretation in India that the Indians addressed the higher official during the colonial rule as *sir* referred to *slave I remain* albeit there is no authentic proof for such interpretation.

When we peruse closely to the origin of the term *sir*, the dictionary of English reveals that the term *sir* is derived from the word *sire* where 'S' is written in capital. The term *sire* is a distinctive title granted to a *knight* or *baronet* but now the term is

archaic. However in India the term refers to a higher authority. But it could be an abbreviation of *senior* or *superior*.

The term *madam* is used to address to a married woman or one holding high position in the society. *Ma'am* is the slang term that refers to *madam*. But Kristen Hansen Brakeman in her article *Don't Call Me Ma'am* duly registers her displeasure in being addressed as *Ma'am*. She thus opines, *Ma'am is a slap in the face. It feels like one day you're young and turning heads and everyone treats you nicely. When they talk to you, they call you, miss*. Thus she thinks that she feels old when someone calls her *madam*. Nevertheless, men do not have any issues over being called *sir*.

There is also another interpretation of *madam* that the said term is the abbreviation of *My Dame* but the word *dame* is slang and not considered as a respectable term. The term *dame* is derived from the Latin term *domina* refers to lady, a former title given to noble ladies who held barony in their own right. These terms are used pertaining to the social status of the people.

Exploring the gendered language in the professional arena is one of the major aspects of language that reflects a culture. It is a challenging task for women to hold leadership status as men strive to accentuate their superior status. Addressing to women bosses as *madam* sometimes used rather in derogation and not in approbation.

Sophia Rahman in her article *Why Men Treat Female Bosses Differently than Their Male Counter Parts* observes that many men in subordinate positions feel threatened by female superiors and behave more assertively towards them than they would to a male manager. Such attitude paves way to gendered language where lady bosses have to face hurdles in discharging their duties smoothly.

SIGNIFICANCE OF NAME

Name is the identity of a person. In downward communication many a time superiors feel that it is rather unimportant to remember the names of the



subordinates, hence they refrain from calling the subordinates by their names. They use slang expression *hey* to call or to attract attention of somebody. The word *Hay* is derived from the Old English word, *heg* that is used to attract the attention of the people. To emphasize the superiority and to subvert the status of the receiver superiors resort to address *hey* or snap their fingers. In Tamil, /ei:/ is used to call someone, implicitly indicating that the names of some people who are placed in the lower level of social hierarchy are not worth remembering. Hence, language is the most effective tool to exercise power politics.

In the rural areas of Tamil Nadu, a simpleton or people who engage in menial jobs are addressed based on their appearance. For example, *Karrupan* (black fellow), *kattiyar* (short fellow) *chappani* (handicapped) are used by their masters. In the past these people were oblivious to their stolen identity and used to run errands to their masters promptly. But over a period of time literacy has brought them the realization of the importance of names that gives dignity to one's personality. Crude expressions are avoided replacing euphemisms

Euphemism: Language evolves along with culture creating impact on the psyche of the people. Earlier religions were the parameters of culture but owing to globalization where science and technology are the dominant forces determining the life styles of the people, language and culture language evolved extensively resulting in communication revolution. Globalization provides an opportunity for people from different nationality and culture to converge in one place to work. This work culture has a remarkable impact on language applications. Hence a jobless person may inform in a euphemistic manner that *he is between jobs*. Such statements are made to safeguard the pride of a person. Similarly the term *housewife* refers to a lady who takes care of the house and children. But semantically speaking in late 20th and 21st century the term *home maker* emerged to retain the pride of the women. Feminist critics observe that *house wife* is a term that is rather used in derogation and does not acknowledge the efforts and skill of the lady of the house. But the term *home maker* carries dignity and duly endorses the efforts of

the mistress of the house. The Swedish journalist Peter Letmark observes that the term *housewives* are a near-extinct species in Sweden. And the few who still do exist don't really dare to go public with it.

In the neighboring country Norway, the *Housewives' Association* had changed its name to the *Women and Family Association* and the membership had tremendously increased from 5000 to 60,000. The feminist economist Chorlotte Koren opines that the reference to *housewife* was just too embarrassing.

Viewers of the Tamil Nadu can observe the fact that if a housewife is questioned about her profession in a talk show or symposium in Television, they rather answer in a subdued voice, "I am only a housewife", implicitly communicate their embarrassment of being a housewife. These observations reveal the fact that women think alike irrespective of different nationality and culture.

Jargon: Jargon is a technical language pertaining to a profession. In the corporate world, if a staff announces that he/she has got a *pink slip*, it refers to a notice of dismissal or termination from one's job. Such notices are also called as one's *walking papers*. The term "pink slip" dates from the early 20th century, and originally referred to the practice of including a pink-colored slip of paper in an employee's weekly pay envelope notifying the worker of his or her termination. The color pink generally represents something soft and beautiful implicitly associated with women. But a pink slip is a bad news to the staff.

The term *Viral* is the product of Machine language referring to a news item that spreads widely in social medium. This term also refers to propagation. The advent of computer has a strong impact on language and the word *viral* has become *viral* now. Thus the promotion of computer technology has a strong impact on the language and applications.

CONCLUSION

Language is not static, it is an ongoing process and the semantic applications do change complementing the socio cultural and political climate. The term 26th



July in Mumbai now refers to the Mumbai floods that occurred during 2005. The frequent usage of the word *deluge* hit the newspaper headlines during the floods. Even a person with limited knowledge in English has become conversant with the term *deluge*. Hence the components of communication are interrelated. If the message refers to 26/07, people in Mumbai will surmise that the message refers to the floods in Mumbai. There is always a tacit understanding between the social media and the public of a particular region. Such intricacies in communication may puzzle a foreign national. In Tamil, the term *assault* is firmly embedded in the Tamil semantic usage that strongly pertains to *carelessness*, but the real meaning of *to assault someone* refers to *attack someone*. Though the word *assault* is an English word, it is used in different context in Tamil language. Contextualization of English Language and communication pertaining to culture and society is one of significant fields that require a thorough research. Language is a powerful unifying force and English is one of the major languages widely used globally. Scholars and Professionals irrespective of their fields should be aware of the changes that occur in language and communication owing to the socio cultural and political situation as it provides an impetus for the development of both professional and personal fields.

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A MULTIFACETED GLIMPSE ON APATHETIC LISTENING

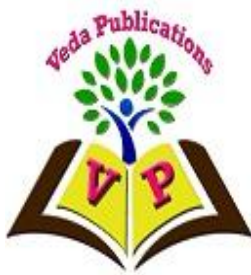
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ABSTRACT



Oral communication is one of the significant methods that play a predominant role in the process of communication. Communication is a two way process, that ineluctably involves speaking and listening. Many a time there is a breakdown in communication. This may be due to poor expression of ideas or poor listening. Even if one of the participants fails to participate in the process of communication, there arises a communication barrier. The success of a communication is firmly moored on intent listening. But people often experience communication gap with their counterparts that stains better relations. And this communication gap mainly occurs due to poor listening. There are different types of listening but apathetic listening extinguishes a message and deflates the zeal and enthusiasm of the speaker. Apathy is also associated to mental illness. The paper aims to expound the cause and effect of apathetic listening with suitable references.

Keywords: *Apathetic, Communication, Process, Listening, Oral.*



INTRODUCTION

Listening is one of the important ingredients that makes a communication successful. But from personal to professional arenas people often experience communication barriers that tarnish better relations. Some may not be adept at communicating messages effectively but even when they communicate lucidly, many a time important messages do not reach the recipient of the message. This makes the sender of the message confound regarding how to proceed further with the communication. Lack of response from the receiver of the communication nullifies a message and this is due to apathetic listening. Apathetic listeners are non listeners and disinclined to give proper response to a communication. From professional space to political space apathetic listeners create hurdles and barriers to communication. What makes a person indifferent to a message?

Body language, tone, eye contacts, facial expressions are the major factors for effective communication giving cues to the messages delivered. Apathetic listeners quell the enthusiasm of a communication. Their non expressive countenance deflates the liveliness of a communication. This paper is an attempt to evince the cause and effect of apathetic listening.

CAUSE AND EFFECT OF APATHETIC LISTENING

Experts from the field of Medicine opine that apathy may occur due to mental illness. People with schizophrenia disorder show little interest in the happenings around them. Apathy may also occur due to depression which makes people lose interest in the events around them and have a tendency to seek solitude avoiding social relationships. Such mindset poses a great danger to the society as it is difficult to handle such people.

INFLUENCE OF ELECTRONIC GADGETS

Apathy is closely associated to lack of interest in decoding a message. It is always an enigma to the communicators while pondering the causes of apathy at a work place because one cannot find a definite reason for apathy. Nevertheless, with the advent of modern technology the characteristics of human communication have undergone a massive change where face to face communication is

diminishing paving way to the communication through social media such as face book, twitter etc.,

The basic skills of *listening, reading, speaking and writing* are stealthily waning from the canvas of communication in the society. But, people are oblivious to such changes that occur in communication as their interest is pivoted on electronic gadgets. Though experts firmly believe that modern technology has brought a great revolution in communication as people can communicate across the world easily and fast, too much exposure to the electronic gadgets has adverse effect on the physical and mental health of the people. Overuse of electronic gadgets creates Fatigue, sleeplessness and lack of physical exercise make a firm dent on the concentration that erects a barrier to listening.

Parents and teachers are often perplexed with the indifferent attitude of the youths. One could surmise that this may be due to generation gap but it is essential to know on what occasions the youths prefer to stay put and keep their mind closed to conversations. Parents and teachers from old schools tend to advice on different issues which do not appeal to the youths. Their proximity to electronic gadgets has become a treasure trove of knowledge that imbibes *I know all attitude* making them apathetic listeners.

At working place apathetic listening creates a gulf between the superior and the subordinate. On some occasions superiors are frustrated with their subordinates' careless attitude. Orders and instruction are not adhered diligently resulting in failure of the project. Even during important conferences and meetings the participants and members are glued to their mobile phones reading messages numbing their senses which rather make them insensitive and careless even to the burning issues. People holding high office many a time are found viewing their mobile phones during important meetings not paying heed to the messages thereby conveyed. The apathy of people is increasing due to the technology enabled communication. People shooting videos of accidents or mishaps instead of rushing for help often hit the headlines of the news. A teenager was lying bleeding to death on the road in Koppal district, Karnataka hit headlines of the news



paper on 2nd Feb.2017. The perverse fascination of shooting videos of dying people instead of rushing to help them certainly rings alarm of concern as such mindset indeed poses a great threat to the society. In another incident one of the witnesses at a road accident scene was disgusted to see people taking pictures and recording the scene rather than helping the victims of the accident. People with social consciousness are really concerned with considerable increase of apathy. Emotions and feelings are vanishing from the psyche of the people. When people derive pleasures from others' sufferings *sadism* arises. This state of mind is very dangerous as people with such mentality do not take cognizance of others sufferings and pain.

SELFISHNESS AND CARELESSNESS

Selfishness and carelessness is also one of the reasons for apathy. Sir William Osler (1849–1919) once said, "By far most dangerous foe we have to fight is apathy —indifference from whatever cause, not from a lack of knowledge, but from carelessness, from absorption in other pursuits, from a contempt bred of self-satisfaction." People are so much ensconced in *self* insulating them from other important responsibilities. *I can but I won't* is the attitude of such people. Such people don't care for anything except themselves. People indulge in *self* and do not take any efforts to understand the problems and difficulties of others. Such attitude is very dangerous to the society. Poets in English Literature have duly registered the fact that remaining silent when something is going wrong is a sin. Ella wheeler Wilcox has asserted that being silent is a sin,

To sin by silence, when we should protest,
Makes cowards out of men

Social injustice is mounting up because of indifferent attitude of people and the subsequent silence. Selfishness and self-centeredness harbors apathy among people as they do not pay heed to any major social issues unless they affect them.

LOW MORALE

Low morale, lack of motivation and energy, low esteem are some of the reasons for the apathy of the employees. These employees are harbored by *defeatist attitude* that make them lose interest in their jobs. They are detached, aloof and mentally

closed to any communication. Hence, it becomes a difficult task for the superiors to communicate with such subordinates.

RIGID AND STERILE ENVIRONMENT

Rigid and sterile environment sometimes intimidates the employees. Many a time such *too perfect* environment fuels fear and diffidence among employees. Under such conditions they pretend to carry on with their cool countenance to hide their fear and discomfort. This fear benumbs their sensations making them apathetic. When superiors try to communicate with such subordinates they just confront cool and expressionless face of their subordinates that makes difficult for them to understand if their messages are decoded properly or not. If the superior is from egalitarian culture he expects feedback and participation in all activities from his subordinates but if the subordinates are from hierarchical culture they keep silent and expect the superior to take the lead. Diverse cultures have strong impact on language and communication. The feeling of **Job insecurity, diffidence and the fear of losing respect and support** of others extinguish the spirit of the staff making them indifferent to communication.

CONCLUSION

The success of a communication depends on listening and feedback to the message delivered. Apathetic listeners quell the spirit of communication. Various factors pertaining to apathy have been briefly discussed in the paper. This attitude is accruing day by day making people robotic. This mentality poses a great threat to the society. Younger generations being wary of expressing their feelings prefer to remain cool without revealing their feelings is very common today. Julius fast in his book on *Body Language* observes how people wear masks and pretend to be indifferent to the message. This attitude arises when they do not give importance to the people around them. Apathetic listeners are listeners who can listen to messages but prefer not to listen. Humanity subjects are waning from the society making people more commercial in their approach. In view of the proverb *Money is a good servant but a bad master* state the fact that one should not blindly go after money and should be encouraged to pursue his/her interest and strive to contribute for the



development of the society. Exchange of knowledge and information is very important for a healthy society. Apathy can be eliminated if people develop a sense of responsibility towards the welfare of the society.

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ON CRITIQUING INFLUENCE AND PLAGIARISM

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ABSTRACT



The term that every research scholar is conscious of is *plagiarism*. Stealing or copying others' work is plagiarism. Broadly speaking every research scholar strives to produce original work. Despite working diligently many a time the research scholars face certain hurdles that question the authenticity of their work. Hence, the scholars are anxious to produce his/her work devoid of plagiarism. The paper deals with the concept of influence and plagiarism evincing the distinction between the two. Matter and manner are the two major ingredients that lucidly project the discrimination between the two concepts. The paper refers to the theory of Harold bloom which refers to the psychological struggle of the aspiring authors to overcome the influence of their literary antecedents.

Every work stems from the previous work. But the manner in which the borrowed concept is projected is important. Literary works appeal to the emotions and feelings where there are chances of overlapping that put them in trouble. The paper also speculates *cryptomnesia*, when an author is alleged of plagiarism, he/she justifies that his/her borrowing from another work is unintentional. The paper attempts to illuminate the discrimination of influence and plagiarism which every author ought to be aware of before venturing to write on a subject.

Keywords: *Influence, Plagiarism, Concepts, Discrimination, Scholars.*

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INTRODUCTION

All mankind is of one author, and is one volume; when one man dies, one chapter is not torn out of the book, but translated into a better language; and every chapter must be so translated. . . .—John Donne

The process of researching tends to unearth something that already exists in the world. Every work is the conduit of the past. *No poet, no artist of any art, has his complete meaning alone. His significance, his appreciation is the appreciation of his relation to the dead poets and artists. . . . The existing [literary] monuments form an ideal order among themselves, which is modified by the introduction of the new (the really new) work of art among them.* The source of a text is the matter which resembles some earlier work and the dissemination of the *matter* in varied perspectives is the *manner* that every research has to focus.

Literature appeals to emotions and feelings. The work of a literary writer is subjective. The scholars may find overlapping of ideas during the process of their study but the manner in which the work presented is more important. The dramatic theme of Dryden's play *All for Love* stems from the Shakespeare's play *Antony and the Cleopatra*, nevertheless, Dryden cannot be accused of plagiarism as he has duly registered in his preface that his work was influenced by Shakespeare's *Antony and Cleopatra*, as the play offered *an excellent moral* in its depiction of the unfortunate consequences of *unlawful love*. But though the source of the play is pecked from Shakespeare's play *Antony and Cleopatra*, Dryden's play *All for Love* is projected in a different perspective firmly

imprinting the originality of the writer as the play focuses on Alexandra's doomed relationship with her husband Antony. Moreover, the influence of Shakespeare has been acknowledged by Dryden. There is a fine line that distinguishes plagiarism and influence. Scholars from various fields choose the themes for their work from various sources. These themes become the motif of their study as the human brain is bombarded through various sources. These sources implant a theme of a work that attracts their psyche.

INFLUENCE AND PLAGIARISM

Writers and artists are consciously or unconsciously influenced by their role models or the subjects that cater to their tastes. Many a time the writers are tempted to write on the topics that attract them. On such occasions these writers tend to write on the topics which had been already published, but they make an attempt to write in their original style that expose a different perception making the work totally different from the resource text from which the gist of the work had been extracted. Hence different styles are recorded based on the common topic. Such works come under the cadre of influence.

A keen perusal of the history of English Literature illumines the fact that influence is the major factor that provides a base for a new work. Chaucer's *The Canterbury Tales* written between 1387 and 1400 depicts a group of pilgrims where every member of the group tells a story during their journey to the shrine of Saint Thomas Becket. The critics surmise that the



repertoire of tales narrated by the members of the group resembles *Boccaccio's Decameron*. The Government record shows Chaucer's several trips to Italy between 1367 and 1378 and the critics assume that he might have met Boccaccio during this period as the *Canterbury Tales* is published between 1387 and 1400 after his visit to Italy. However there was no evidence of their meeting. Chaucer's earlier works bear French influence that illumines the fact that every work is the collage of different sources.

T.S. Eliot in his *Tradition and individual Talents* affirms that no work is independent. He observes, *what happens when a new work of art is created is something that happens simultaneously to all the works of art which preceded it*. No work is autonomous nevertheless the work should vouch originality of the writer.

There are certain materials that unconsciously embed in the bottom of the heart of the authors from their prior reading or listening to a particular subject. These materials surface in their work that put them under the purview of plagiarism. Psychologists observe that these authors experience *Cryptomnesia, a concealed recollections* where certain themes are buried in the mind of the authors from prior reading or listening and these themes emerge in their works that will place them in plagiarism. Such oblivious presentation of a work that reflects the source of another author questions the authenticity and credibility of the writer even though they argue that they are unaware of plagiarism.

Coleridge, a well-known poet of Romantic age has been criticized for plagiarism and his indebtedness to other writers. The poet's defenders refer to his *eccentricity work habits* and his prodigious power of writing but Thomas De Quincey, one of his contemporary writers has exposed Coleridge's literary appropriation stating that his literary indebtedness to other writers had been characterized as *personal neurosis*. During this period intellectual Property Rights was in an evolving process legally and plagiarism was rather associated to aesthetic judgment than moral attributes.

Cryptomnesia, has been widely discussed by the critics and psychologists. It is questionable to gauge the authenticity of the author's defense pertaining to ethics of writing. There are chances that ideas and concepts may emerge in the writer's mind and be reproduced in the works that resemble a material which had been already published. To sum up these authors justify that that they have used the materials unintentionally. However such works are considered as plagiarized even though the writers argue owing to the faulty memory rather than negligence or malice as it is difficult to understand if the writers' assertion is true or not. One of the most debated cases of *cryptomnesia* is Helen Keller's *The Frost King*. Helen Keller was born in 1880 and became deaf and blind at an early age. She was educated by her teacher Anne Sullivan and later became an author and activist. When she was eleven years old she wrote a book, *The Frost king* and submitted to the head of the Perkins



School for the Blind which was published in their Alumni magazine and later it was published in the Goodson Gazette, a journal of deaf and blind education that reached broader audience, it was discovered that the story had a strong resemblance including at some lines, to another story entitled Frost Fairies by Margaret Canby. She was tried by a school of court that consisted of four sighted people and four blind ones. They interrogated her and the judgment came favorable to her. Yet it was harrowing experience for her that made her give up writing fiction altogether, in fact she lost interest in writing. There are cases of *crytomnesia* that gives opportunity for writers to argue that they have not plagiarized intentionally. But it is very essential to be vigilant as writers may take advantage of the term. Nevertheless, at the bottom of their heart, the writers are anxious of being influenced by their predecessors that may trap in plagiarism.

Every aspiring author often experience *anxiety of influence* referring to literary antecedents as there is en number of works penned on a particular subject. Harold bloom in his book *Anxiety of Influence* validates that only a strong writer could resist the anxiety of influence. Thus the anxiety of influence always simmers in the mind of the budding writers. The term plagiarism unnerves them. Influence from the varied sources is ineluctable but the manner in which a work is presented should guarantee the originality of the author.

Different versions of the fairy tale *Beauty and Beast* have been published and later

made into movies. These versions share a common concept but the varied presentations with improvisations made by the authors firmly affirms the skill of understanding the taste of the public. This tale is first written by French novelist Gabrielle-Suzanne Barbot de Villeneuve and published in 1740. Later in 1756, Jeanne-Marie Leprince de Beaumont abridged the version and published it in Children's collection. From then onwards varied versions are produced to cater to the taste of the public. Influence plays a vital role in writing especially in humanities. Literary writings are always stem from the preceding works.

CONCLUSION

Intellectual Property Rights is formed to protect one's work from theft. The efforts of the writers needs to be protected from the pseudo authors who attempt to steal the brainchild of others. The term plagiarism is derived from the Latin word *Plagiarius* that denotes stealing of someone else's work. The word was pioneered by the Roman poet Martial in the 1st century who complained that another author had *kidnapped his verses*. The term *Plagiary* a **derivative of plagiarus, introduced into English in 1601** when the dramatist Ben Jonson alleged someone guilty of literary theft. The proper term plagiarism was introduced **around 1620** which refers to *kidnapper* and *plagium*. Authors of all age are conscious to protect their works from plagiarism but ideas and messages resurge with varied perspectives. However when ideas disseminated across a work that resembles



any other work, it will come under *paraphrasing plagiarism*. Conscious or unconscious borrowing of materials of other's work amounts to plagiarism. The paper refers to varied sources but they are used as support material to validate the points which are discussed in the paper and the research scholars should know to distinguish between influence and plagiarism as it is essential for every aspiring author to advocate the messages and ideas effectively that win the trust of the readers.

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PANDEMICS: FROM LITERATURE TO RELIGION

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Abstract:

Literature is one of the sources that lucidly reveal the pulse of the contemporary society. The year 2020 is one of the remarkable periods owing to the pandemic Corona Virus that shook the entire world and engulfed the lives of people with fear and anxiety. This paper is an attempt to focus on pandemic literature pertaining to contextualization of language and religion as people seek solace in prayers and by perusing religious scriptures. The paper also explores Albert Camus' novel *The Plague* to illumine the fact that the present situation of pandemic that grips the people in fear is not a new phenomenon to this world. In fact it is something that had been already accosted by the society in the past. This paper detours the literary works pertaining to epidemics and pandemics to evince the impact it had on the society. The paper also focuses on language and affirms the fact that words are one of the most powerful tools which have a greater influence on the psyche of the humans. Contextualizing of language and literature complementing the contemporary society is the main motif of the study. The paper also affirms the fact that the tenets of religions play a significant role that brings hope to the people.

Key words: literature, society, contemporary, anxiety, language.

Pandemic Literature and society:

The events and happenings in a society make a history. Epidemics and pandemics are the most deadly foes that people confront intermittently in the society. The experience that drives home the fact human race is under the control of the omnipotent Nature. While Scientists assert that the universe is canopied under the influence of science nevertheless nature demonstrates its potentiality through natural calamities and deadly disease which poses a great challenge to the scientists. Language always complements the contemporary environment. While contextualizing language, certain terms create a larger impact on the human psyche accentuating the seriousness of the situation.

The dreadful pandemics Corona Virus has gripped the entire world with fear as the disease has devoured the lives of the millions of people. Every country in the world is

affected by this dreadful disease. The experience is an eye opener propelling people out of their comfort zone. Circulation of emotionally loaded terms in the society creates panic among the people and hence they frantically search for a solution to alleviate the pain and suffering. While Bio Technology companies are engaged in producing vaccines to protect the people from infection, nevertheless the mental health of the people should also be taken care of. People tackle this crisis in engaging themselves in various activities. People interested in literature read pandemic literature to learn how the world had tackled such crisis in the past.

The trajectories of human behavior can be construed while perusing pandemic literature of the past that illumines the lives and mind set of the people during epidemics and pestilences and compare the situations of the past and the present.

Since the pandemic Corona Virus attack in 2019, The World Health Organization has coined the term *Covid 19* for Corona Virus disease. Experts from various fields publish their research papers to update the knowledge of the people. But people are bombarded with various terminologies which create panic and anxiety. They start sharing their feelings and emotions through articles being published in journals and newspapers.

Los Angeles Times has published an article in March 23, 2020 that describes the predicament of people during Covid 19, penned by Stephen Metcalf titled *Albert Camus' 'The Plague and our own Great Reset,'*

“We are living in the eerie, low-pressure Vacuum before the storm. A friend emails from the Bay Area to say she’s baked her first loaf of bread; another writes from Australia to say that this epidemic will be, “a giant mirror held up to everyone” and that he is reading Mary Shelley’s “The Last Man”.

Shelley Walis in her article in *The Hindu* effuses her emotions, “In this period of isolation, one turns to literature and art to come to terms with reality and place in the context of history.....I look out of my window and see flowers blooming and the changing shades of green on trees. Yet this tranquil radiance invites dark thoughts as scenes of pandemic recorded in literature-bodies piled sky high waiting for burial, cries of pain searing through the London smog-crowd the mind.”

Different writers express their woes pertaining to Corona Virus through their articles. Literature mirrors a society. The nightmarish experience is being shared by the writers across the globe. An uncomfortable tranquil is set in the society accelerating the anxiety of the people and various terminologies that circulate among the people do add to the apprehension of the people. Language is a boon to humans. Nothing could be expressed so effectively than words replete with emotions. The significance of words is more pronounced pertaining to pragmatics. The words which had been sounded archaic and empty have become the centripetal force drawing the attention of all the people. Pestilences and

epidemics do recur intermittently and the evolution of language and its presentation do change complementing the contemporary environment. However, words are just embellishments as the basic human psychology remains same.

Albert Camus's novel *The Plague* published in 1948 vividly portrays the pain and sufferings of the people during pestilences,

“Everybody knows...pestilences have a way of recurring in the world; yet somehow we find it hard to believe in ones that crash down on our head from a blue sky. There have been as many plagues as wars in history; yet always plagues and wars take people equally by surprise”

The recurrence of pandemics is witnessed by the people in the past and the present. Significance of language could be experienced that create havoc among the people. The plague spreads in the city of Oran and the people are gripped with the feelings of *exile* and *imprisonment*. *Isolation* is the term that plagues the people. The term plague has become a connotation that refers to a disastrous evil or calamity.

Exile and *imprisonment* permeate the scenario of the novel. Exile is the term that refers to a punishment of banishing someone away from the familiar environment but to avoid the *plague* people are imprisoned in their own home. Imprisonment is forced on people to stay isolated to protect from the epidemic. Solitude is bliss, an enjoyable experience when writers wish to engage in something but isolation is a punishment as it is forced. William Wordsworth duly registers his blissful solitude in his poem Doffodils, “I wandered lonely as a cloud”, and then his eyes capture the beautiful daffodils. *Isolation* is being separated from the family, friends and the loved ones.

The novel *The Plague* depicts Raymond Rambert's futile efforts to rejoin his wife in Paris lucidly portrays the suffering of the people who could not meet their loved ones during isolation. Later he decides to stay in the city to tend to the sick people. The emotions and the feelings of people transcend time and age.

The pandemic Covid 19 is a deadly foe affecting millions of people around the world. The words *Quarantine* and *Locked down* reverberate in the society robbing the peace of mind of the people. While the terms *exile* and *imprisonment* are discussed widely by the critics pertaining to the novel *The Plague*, the pandemic Covid 19 is firmly anchored in the terms *Quarantine* and *Locked down*.

Quarantine is the word that circulates widely in the society. In India this word is used extensively even by the people who do not know English. Communication is an on-going process. While the terms *exile* and *imprisonment* are discussed by the critics as the thematic study of the novel *The Plague*, the writers of 21st century tend to discuss the terms

Quarantine and *Locked down* as the motif of the literary work. *Quarantine* replaces *isolation* and the *motif* replaces the *thematic* study. This lucidly reveals the evolution of language. The word quarantine is derived from the Italian words *quarantagioni* which means 40 days. The practice of *quarantine* began in 14th century when the travellers in ship who had returned from infected ports were asked to be in quarantine for 40 days. Hence people could surmise that isolating themselves from infected people is the right approach keeping emotions at bay to certain extent.

Language and life style of the people have evolved extensively yet the emotions and feelings are same. *The Plague* portrays the sufferings of the people during the epidemic runs parallel to the emotional and physical turmoil experience of the people during Covid 19. The terms *Quarantine* and *locked down* do not carry any significance during normal times but the situations give life to the words, hence pragmatics cannot be ignored as the significance of words depends on the context.

Pandemic and religion: Resorting to God and reading religious scriptures are not an uncommon practice. Some feel that pestilences and diseases are God sent to punish the evil. Under such trying situations do the people resort to religion to alleviate their fear and pain? Does the fear make people tread towards God to seek His blessings and protection?

There is always a conflict between science and religion. The study of science is based on proofs and evidences and appeals to the intelligence whereas the study of religion appeals to the feelings and emotions. Pestilences elicit the conflict between EQ (Emotional Quotient) and IQ (Intelligent Quotient) among the people. People with high IQ approach such stressful situations scientifically based on the facts and information given by the experts but do they get relief from the stress? Logical approach to all situations may not alleviate the pain of isolation while dealing with the mental health of people during pandemics or epidemics. Fear and anxiety assault the psyche of the humans during such environment. Albeit science and medicine treats the physical health of the people which is very important nevertheless the mental health cannot be ignored owing to its strong association with the physical conditions of the people.

There are references in Bible where the God speculates about the calamities that takes place in the world. Christian society always makes connections between epidemics and doomsday. Pandemics and dreadful diseases are the signs of the *Second Coming* of the Christ. Not only the pestilences but also lack of morality and shortage of food supplies add woes to the people.

Hindu scriptures affirm that decay in morality and values confirm the birth of *kaliyuga*. Human sufferings are based on their karmas. Markandeya in the Mahabharath describes the decadence of human ethics and culture in the society where people succumb to pandemics and other evils like murder, cheating and betrayal. *Kaliyuga* as per Hindu scripts

refers to the age of darkness, age of misery and quarrel depicting the sufferings of people. Lord Vishnu takes His Tenth avatar, *Kalki* as described in the *Puran*as the avatar who ends the destructive period and rejuvenates existence removing *adharma* which extinguishing all vices from the society and ushering in the Satya Yuga, while riding a white horse with a fiery sword.

Jesus Christ's *second coming* is proclaimed to alleviate the pains and sufferings of people. People seeking religious and spiritual guidance during pandemics is common. The history of the world reveals the fact how Christians dealt with plague and other pandemic that resulted in the spread of Christianity. Attending to the sick was the main duty. World Health Organization published an interim guidance on 7th April 2020 seeking help from Religious leaders, faith-based organizations and faith communities to guide people so that the mental stress could be taken care of.

All religious scriptures refer to the sufferings of the people when human ethics diminishes and pandemics are one of the punishments inflicted by God that enshrouds on humans expelling peace and happiness. Hence people turn towards God to purge their sins they have committed.

In Assam in India, a large section of people considered Corona Virus as Goddess Corona Devi who has shown her wrath on people. Hence people offer prayers to quell the anger of the Goddess. This shows the helplessness of the people approaching the problem based on their emotions. The Hindus in Tamilnadu in India worship goddess Marriaman to cure the various diseases and in Coimbatore in South India three temples had been built when the plague attacked the city, named *Plague Marriamman*.

Conclusion: Writers portray the happenings and events through their works. With the advent of pandemic Covid 19 people experience a sudden jolt that ceases all the activities. Their lives are bombarded with emotionally loaded terms that rob the peace and joy. The prefix *pan* in the term pandemic is derived from the Greek *pan* which means everything, involving all. Hence pandemic creates panic in the society. Literature highlights the feelings and emotions of the people during such crisis. *Health is wealth*; every human being's happiness depends on good health. The portrayal of the character Cottard in the Albert Camus' novel plague who in the end when the city of Oran lifts the isolation by opening the gates, fires randomly with his gun until he is arrested vividly reveals the frustration of the people. A person cannot enjoy life if he/she is sick. Hence, the characters portrayed in the novels pertaining to pandemic duly register the emotional turbulence experienced by the people. People during crisis offering prayers to God are a common practice and language is a powerful tool that creates a large impact on the society.

People find solace in reading and writing literary works and especially tend to read pandemic literature to know how the people in the past dealt with such situation. Such

reading also provide them knowledge that the situation they face is not something abnormal or unique and have always been meted out by the people in the past. They certainly come to turns with the omnipotent nature and the reality.

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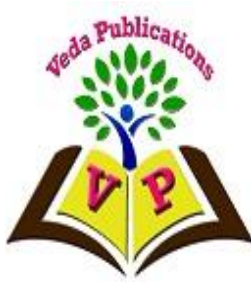
ON DECODING THE TRAJECTORY OF CONSCIOUSNESS IN BLAKE'S POETRY

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ABSTRACT

Poetry is defined as spontaneous overflow of feelings recollected in tranquility by one of the remarkable poets of the romantic age William Wordsworth. Human beings are conditioned by emotions and feelings that come out in varied forms like paintings, sculptures, poetries etc. An artist absorbs elements that prevail around him and effuses in art forms. An artist is adept at reading the nuances of socio economic and political impact of the society and shares his/her thoughts through their artistic products. Unless there is a balance maintained between the emotional and intellectual quotient, an art cannot reach the audience. Critics speculate the language and the content of poetry. Language is a channel of expression where the poets try to exploit to reach the audience effectively. William Blake is one of the remarkable poets of the Romantic age and the paper attempts to unveil the submerged consciousness of the poet reflected through his poems. Short poems are pecked for the study to illumine the impact of the contemporary society on the psyche of the poet. Literature mirrors a society and aspiring scholars can certainly accrue knowledge by perusing the literature of the past. The elements of romanticism in Blake's poems are elicited and the poetic devices reflect in his poems are explored. Blake's poems reflect multi layered emotions firmly anchored in ethos and pathos that permeate in the social lives of the people. The elements of romanticism in his poems are discussed.

Keywords: *Emotions, Feelings, Poetry, Art, Language.*

**INTRODUCTION**

The Romantic Movement originated in Europe toward the end of the 18th century and was more vibrant between 1800 and 1850. The style of romantic poetry is focused on simplicity, instead of inflated and artificial mode of expression adopted by the classical poets. The romantic poetry flows naturally depicting the contemporary environment with simple and direct style which worships the elements of nature and thereby accentuating the significance of human consciousness for a peaceful society. Blake's poetry illumines multiple layers of his consciousness revealing not only his artistic skill but also his moral responsibility of an artist as it is a known fact that a message in an art form reaches the audience/readers effectively.

William Blake was born on November 28th in 1757 in London. He developed love and passion for painting at his early stage. His father James Blake was a hosier and his mother was Catherine Wright Blake. On seeing Blake's interest in painting his parent enrolled him in drawing classes and later he emerged as a skilled engraver from Royal Academy. His passion for arts propelled him to seek admission in Royal Academy. He experienced divine vision in early days and his spiritual experience is reflected in his poems.

His artistic instincts facilitate him to effuse his emotions and feelings in his paintings, engravings and poems. He was one of the remarkable romantic poets, who penned his poems replete with the romantic elements of influence of nature, resonance of emotions, feelings, mysticism that blend with social consciousness. Romantic poetry is very much subjective recording the inner feelings of the poets.

Being an engraver by profession, he was a prodigy to replicate the nuances of the contemporary environment in romantic canvas as the art of poetry stems from imagination and passion like the art of design that was engraved reflecting the inner feelings of the producer. His poems were on etched on copper plates by himself with decorative designs but his poems were widely read posthumously and was extolled as one of the genius of the creative movement of late 18th and early 19th century. His early work *Poetical Sketches* reveals the influence of Shakespeare, Spencer and that of Milton. This work comprises of nineteen lyrical poems. The opening four poems, *To Spring, To Autumn, To Summer, To winter*, vivid representation of four seasons and its impact on the lives of the people. Every season has its own character and influence on the living condition of people. The opening lines of the poem *To Spring* is extracted from the collection *Poetical Sketches*, 1783 personifies the nature,

O THOU with dewy locks, who lookest down
Through the clear windows of the morning,
turn
Thine angel eyes upon our western isle
Which in full choir hails thy approach, O
Spring!(lines 1-4)

The serene beauty of the spring vividly depicted here. The freshness of the poem illumines Elizabethan influence nevertheless love for nature and taking cognizance of its influence is a common factor of romanticism. These feelings make the world lively and beautiful. But every beauty has also ugly side to it. The dichotomy of life cannot be ignored. Blake's poems reflect the philosophy of good and evil.



Personification of spring in the poem brings forth the significance of the nature and illumines fresh environment which people have lost due to industrial revolution. Today in this digital world though people seek the company of computers and smart phones, they do retreat to hill stations for relaxation seeking the company of nature. Spring is the season that brings happiness and enjoyment and the poets welcome the season with zeal and enthusiasm. Thomas Gray in his *Ode on Spring* thus welcomes spring,

Lo! where the rosy-bosom'd Hours,
Fair Venus' train appear,
Disclose the long-expecting flowers,
And wake the purple year!
The Attic warbler pours her throat,
Responsive to the cuckoo's note,
The untaught harmony of spring: (lines 1-7)

Gray depicts the approach of the season; *where the rosy-bosom'd Hours/ Fair Venus' train appear.....* Venus, a Roman goddess represents love, beauty, desire and fertility. The poet calls her fair Venus symbolizes joy and fertility. Blake on the other hand entreats the spring to turn her *angel eyes upon our western isle...the season spring is adored and loved by the poets. Consciousness of nature encompassed by love and passion is illumined here. The healthy companion of nature is very much necessary today. Poems incite aesthetic sense and make people sensitive and caring towards nature.*

Being an artist, Blake is adept at capturing the elements of nature that make the society healthy. Spring seems to predict *tharmas, the peaceful*

embodiment of sensation, who comes to healour love-sick land that mourns with soft kisses on her bosom.(Wikipedia, Poetical sketches, para, 16)) The opening four poems of four seasons representing the four seasons had laid foundation to Blake's later lyrical poem *Spring* which was first published in *Songs of innocence* in 1789 and then published in the collection of the *Songs of innocence and Experience* in 1794. The readers could certainly evince difference in the style of presentation between the Lyrical poem *To Spring* which was published in his *Poetic Sketches* and the lyrical poem *Spring* which was first published in the collection of poems, *The Songs of innocence*. The former poem reflects the style of Elizabethan and the latter poem explicitly depict the happiness of innocence and the role of environment that add joy to the children with brief expressions,

Little boy,
Full of joy;
Little girl,
Sweet and small;
Cock does crow,
So do you;
Merry voice,
Infant noise;
Merrily, merrily to welcome in the year.

The Songs of innocence expresses happiness of innocent children and Songs of Experience refers to the awareness of the materialistic world that assails the growing years of human lives. The presentation of Songs of innocence and Songs of Experience illumines the resonance of John



Milton's 'L'Allegro and Il Pensaroso. L'Allegro is a pastoral poem and the title L'Allegro represents the happy man in Italian and Il Pensaroso represents the melancholy man, the following lines from L'Allegro depicts happy atmosphere that prevail in Spring,

But com, thou Goddess fair and free,

In Heav'n ycleap'd Euphrosyne,

And by men, heart-easing Mirth;

Whom lovely Venus at a birth

With two sister Graces more

To Ivy-crowned Bacchus bore:

Or whether (as some Sages sing)

The frolick Wind that breathes the Spring,

(lines 10-17)

.....

The Songs of Innocence and Experience projects two perspectives- the former illumines the freedom and innocence of the Childhood and the latter projects the waning of innocence in due course when humans experience difficulties in life. The pastoral settings in the poems represent pure joy and freedom. The philosophy of life that has ebb and flow is lucidly revealed.

The poem *The Echoing Garden* that is presented in *The Songs of Innocence* exemplifies pure, unadulterated happiness of children. Even The very title *The Echoing Green* suggests the motif of the poem. Consciousness of nature is evinced lucidly. The poems *The Echoing Green* and the companion piece *The Garden of Love* was published in the collection of the *Songs of innocence* and the illustrations were done by Blake himself. The poet establishes a happy

environment where the readers could have tacit understanding with the emotions of the poet.

The sun does arise,

And make happy the skies,

The merry bells ring,

To welcome the spring

The sky-lark and thrush

The birds of the bush

Sing louder around,

To the bells' cheerful sound.

While our sports shall be seen

On the Echoing Green. (lines 1-10)

The poem, *The Echoing Green* is representative of not only the grace towards one another, but toward nature as well. There is no mention of religion in the poem, its peaceful and focuses on the beauty of nature and the company of other. (Amozzoni, para:2)

The bilateral settings of *L'Allegro* and *Il Pensaroso* and the *Songs of innocence and Experience* vividly reveal the dichotomy of human lives and hence in his lyrical poem he claims,

Joy and woe are woven fine,

And when this we rightly know,

Safely through the world we go. Lines (1-3)

He shares his joyful mystic experience. He strongly condemns evil but he accepts sorrow whole heartedly justifying that joy and sorrow are woven fine.



Linguistic relativity is the one of the significant poetic devices of the poets of all times. The relative terms that the season spring brings forth are mirth, frolick, sun rise, merry bells and Venus, Goddess of love and fertility and Bacchus, god of wine and giver of ecstasy. Gray in his poem *Ode on Spring* has referred to Venus to depict the joyful season of the spring. Blake in his poem *Spring* uses the terms of joy and mirth and hails the upcoming spring season. Translation of thought process to verbal expression is one major expertise of the poets. Verbal expressions vividly depict the socio cultural environment of the poetic setting. Influence of Elizabethan poets like Shakespeare, Spencer and Milton can be evinced in the earliest Blake's lyrical poem *To Spring* published in the *Poetical Sketches*. The expressions like THOU dewy locks...../thine angel eyes (lines 1-4) parade the linguistic behavior of the Elizabethan poets. But in his lyrical poem *Spring*, there is a change in style and linguistic behavior of the poet. The expressions as full of joy, alliteration of sweet and small, merry voice and the repetition of merrily, merrily reveal the rhythm and expression of the poem.

Blake's poems blend mysticism and naturalism; mysticism in his poetry is blended with wistful melancholy. His collection of poems in the *The songs of Experience* speculate the society that is cloaked with hypocrisy. Like other romantic poets his reactions to the industrial revolution and urban living is very much pronounced in the following of his poem *The Garden of Love*,

I went to the Garden of Love,
And saw what I never had seen:
A Chapel was built in the midst,

Where I used to play on the green.

And the gates of this Chapel were shut,
And "Thou shalt not" writ over the door,
So I turn'd to Garden of Love,

That so many sweet flowers bore; (lines 1-8)

Spiritual consciousness: *Anyone who has experienced spiritual consciousness has spoken of coming in contact with divine love. God is love, our soul being of the same essence as that of God is love. The ocean of spiritual consciousness is the ocean of love* (Maharaj, para:1)

Love permeates spiritualism and not limited to materialistic world. The poem *The Garden Love* strongly reflects Blake's intense objections to institutionalized approach in the ecclesiastical world. His spirituality affirms on Selfless love that makes the world beautiful. Robert Rix in his article, *In infernal love and faith observes, Blake evidently sees true worship of God to be one person's active grace towards another but finds no use for the passive reception of sacraments as practiced in the liturgy of the New Jerusalem Church.*(Rix, 111). The tenets of religion are one of the medium of spirituality but parochial mind set on religious practices do not lead to spirituality. Blake's love for God strengthens him with spiritual powers and he effuses his love and passion in his poetry. He opines that experience of love takes over innocence and he uses Chapel as a symbol of experience. Hence in his poem *Song*, he expresses how he lost his liberty and his innocence when he is caught in the web of love.

How sweet I roam'd from field to field,
And tasted all the summer's pride
'Till I prince of love beheld



.....

He caught me in his silken net,

And shut me in his golden cage.

.....

And mocks my loss of liberty. (lines 1-16)

He vividly portrays human lives when experience and knowledge outshine innocence and love for worldly desires is a golden cage. His philosophy of life blends with spirituality that engages him in soul searching of true love. The transient nature of life is expressed in this poem. Sublime of love is the motif of the poem that gives spiritual experience.

Blake is ahead of his time. His soul search for real love for God and his subsequent disappointment with the hypocrisy of the ecclesiastical institutions is highlighted in his poems. The institutions which are supposed to give solace and guidance to the people are devoid of love and the poem accentuates the need and importance of love in human lives. Like William Wordsworth his retreat to nature vividly reveals the significance of nature. The spiritual vision he encountered in his early days channelized to register his religious sentiments. He used objects of nature as symbols to drive home his philosophical approach to life. The feeling of Love is implicitly compared to garden that bear sweet flowers. His symbolisms also bear biblical relations.

Blake's poems show the influence of Swedish theologian Emanuel Swedenborg. His poem *The Divine Image* is implicitly Swedenborgian and he claimed that his *design is based the Spiritual Preceptor (1809) on the theologian book True Christian Religion.* (Britannica, para, 3) Yet his poems

reveal his objection to institutionalized religion. Hence he mentions a Chapel that is closed to the garden of love and some critics feel that the innocence of childhood wanes while assailing through growing years unearthing various factors that teaches the crude reality of the world.

Father, father, where are you going

O do not walk so fast.

Speak father, speak to your little boy

Or else I shall be lost,

The night was dark no father was there

The child was wet with dew.

And away the vapour flew.

The helpless child's unsecured feeling in the materialistic world propels him to seek the protection of God is indicated in the poem. Spiritualism certainly gives a solace for the disturbed mind. But the worldly pleasures tempt the human mind. The industrialization and the subsequent urban development in England might have planted apprehension that the people were digressing from spiritualism. Critics on *William Blake's* opine that he projected the society he lived in *the Songs of Innocence and experience*, observes that the mechanical world was making people selfish and self centered was a great concern of the poet. He never missed the opportunity to express his pain in his work. The child's prayer to father to stop for him and to protect him is a distress call that implicitly refers that people may get lost in the materialistic world that robs the innocence and peace of mind. The contemporary environment has a great impact on the psyche of the poets. The poets possess an inbuilt ability to read the positive and



negative aspects of the contemporary life and society. He feels that the world is unsafe for the children and the society is moving fast towards urbanization and industrialization. He expresses his anguish in the poem, *Infant sorrow*,

My mother groan'd, my father wept,
Into the dangerous world I leapt. (lines 1-2)

The child has to go through the dangerous world where selfish love that makes one despair and life miserable, mighty tiger that lurks behind awaiting for its prey. The vicissitudes of life is effectively portrayed- On one side beautiful nature but on the other side the danger that hides amidst the beauty of nature.

Blake has exploited his poetic skills to reach the readers accentuating love and passion as poems are one of the most significant literary genres that reach the people effectively. The poet's spiritual quest to spread love and goodwill in the society is expressed in his poems. The feeling of love that prevails in the mechanical world is transient and does not signify the pure love. Hence in his poem *The Clod and the Pebble*, he says,

Love seeketh only self to please,
To bind another to its delight,
Joys in another's loss of ease,
And builds a Hell in Heaven's despair. (lines 9-12)

The selfish love that puts other in despair builds a Hell in Heaven's despair. The alliteration of the letter *h* adds musical rhythm to the poem. Blake's realm of nature symbolizes sublimity and spirituality. The Sun, the Moon, the stars all natural phenomena symbolize love and spiritual significance that lay behind the

beautiful nature. He firmly believes, *Where Mercy, Love and Pity dwell/ There God is dwelling too*. Apparently the lines appear to be simple but it speaks the reality of life. *The Clod and the Pebble* symbolizes selfish love and hypocrisy.

His love for animals and portrayal of crude reality is lucidly revealed in the Poem "The Tiger", the poem reveals the universal truth pertaining to the strength and power of the Tiger. He portrays the reality of the world where the weak are affected by the strong. The rhetorical question he puts forth is *Did he who made the lamb made thee?* The facts and reality of life is presented behind the fleeting realities of life.

The weak and the strong live under the canopy of the sky. The weak on the run to protect itself from the strong but in the end the weak succumbs. This is the reality of life. The poem *The Lamb*, biblical reference, Little Lamb who made thee

Dost thou know who made thee
Gave thee life and bid thee fee. (lines 1-3)

The lamb symbolizes Jesus Christ and the image of the Christ with the lamb arises in the mind of the readers accentuate purity, love and compassion. Love for the something that is weak and needs the protection. The soft woolen skin and the meek voice symbolize tenderness. Blake's poems reflect the contemporary society where love and compassion replaces selfishness and corruption.

Social consciousness: His poem *London* exemplifies his social consciousness when he portrays the degradation of the society,

In every cry of every Man,
In every Infants cry of fear,



In every voice, in every ban,

The mind-forg'd manacles I hear. (lines 5-8)

The society that diverges from love and compassion do not provide friendly environment for the humans. Urban life style owing to industrial revolution had brought nothing but misery and poverty.

CONCLUSION

Blake's poems transcend time and place. His poems are well read posthumously. Many a time people do not recognize the greatness of the contemporary poets. Today in this digital world the components of beautiful nature has become just a branch of study and do not incite any interest. The pandemic that emerged in 2020s and the subsequent lock down have tapped social consciousness driving home the fact that nature is omnipotent and mere money and wealth cannot buy happiness and peace. Selfishness and lack of social consciousness have resulted in degradation of moral values. Blake's contemporary society did not take cognizance of reality that he portrayed in his poems. The freshness of his nature depicted in his poems also illumines contrasting image of crude reality of sufferings and pains experienced by the people during his days. He insists on true love that will bring peace and happiness to the society.

Where Mercy, Love and Pity dwell,

There God is dwelling too.

Mercy, Love and Pity are the elements that could make the society healthy.

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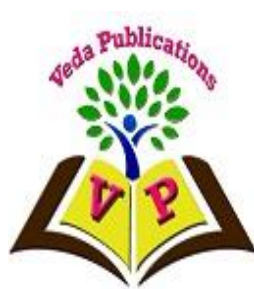
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**A GLIMPSE ON FEMININE WRITING**

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*I/C Principal, Dr.Ambedkar College,Mumbai*DOI: <http://dx.doi.org/10.54513/JOELL.2022.9110>**ABSTRACT**

The paper attempts to explore the nuances and the influence of socio cultural environment on feminine writing. The paper refers to the select literary works unearthing feminine consciousness. The paper also vividly expounds the theory of Masculine and feminine language in Indian and English literature. Women writers are placed in the peripheral position and the feminist critics like Helen Cixous attempts to deconstruct the male centric discourse by motivating women writers to write more of them. Women no more engage in subservient role and the present scenario witness a considerable rise in their status at the professional level. While perusing the history of women literature the theories on feminist writings are discussed. The language flow in women writings is gauged to affirm the power of women in the realm of language and literature amidst social and cultural pressure. Feminine language reflecting the socio cultural situation and the feminist theories that emerged to propel and motivate feminine writings are explored in the paper. Changes are ineluctable that affects the society and the writings of women mirror the culture of the contemporary society. The mind set and language behavior of the people are interrelated that have a major impact on the society. Hence the paper registers the perceptions of male critics on women literature.

Keywords: *Language, Communication, Society, Culture, Feminine.*

**CULTURE AND LANGUAGE**

Culture is the term pertaining to shared, common practice among the people in a particular society. The most conventional definition of the word culture refers to the beliefs, rituals, and practices of a social group. The tenets of religions play a vital role in the formation of a culture. World is suffused with myriad of religions. There is always a firm link between language and religion as religions are considered to be the parameters of culture by scholars and thinkers. But the term culture cannot be confined only to the paradigm of religion.

During the past decade, language and communication have evolved extensively owing to digitalization. In the past the hierarchical structure of the society is strongly associated with religious tenets. Hence the hierarchical structure of man/woman implicitly reveals the subordination of women. Women in all religions are expected to be subservient to men despite the proliferation of women empowerment in the society. Great thinkers like Dr. Ambedkar states, *I measure the progress of a community by the degree of progress which women have achieved.* The progress of women is measured along with the progress of a society. Despite religious and literary texts promote patriarchy; feminine writings and feminist literature do progress with vigor affirming the ability of women writers.

Milton's *Paradise Lost* exemplifies literature's share in accentuating hierarchical status of Man/Woman where women are placed in inferior status. Katherine Sanger in her article *Is John Milton a misogynist, a feminist or a Sexist?* has registered different points of view of the critics and among them is Sara Gilbert who sees Milton as a misogynist arguing that Milton's Eve is inferior and inspired by Satan. She also opines that Milton has paved way to the misogynistic tradition.

Anne ferry in her article *Milton's Creation of Eve* refers to Douglas Anderson who questions if the language of hierarchy used in *Paradise Lost* can be assumed that Milton *simply believed in the sexual subordination.*

Anne Ferry defends Milton claiming that *he was unavoidably compelled to work with or without.....we have to think about what was dictated to Milton by their story in Genesis and its interpretations in the New Testament, how he shaped what he shaped could not change.....*

Pearl Buck in her novel *The Good Earth* lucidly reveals the thoughts of the protagonist on his wife that *she is only a woman*; hence he refrains from communicating freely with her. Thoughts precede language. He never converse with his wife much throughout the novel as he considered that women are not equal to men. Throughout the novel *The Good Earth*, Olan, wife of the protagonist Wang Lung communicates in monosyllables or brief sentences but her unconditional support to her husband in his occupation of agriculture and her strong will power she exercises during crisis illumines her strong character. Her communication is restrained but does not diminish her skill which is the pillar of strength to her husband. Olan exemplifies the status of women in the society. She is depicted as plain looking but plays a significant role in the novel. The myth that heroines of novels are depicted as beautiful and delicate is disillusioned in the novel *The Good Earth*. Olan is strong and practical minded who handles trials and tribulations of a farmer's life with strong will power.

FEMININE WRITINGS OF THE EAST AND THE WEST

History of feminine communication cannot be dismissed as irrelevant while exploring the nuances of feminine writing. Feminine language is perceived with pauses and gaps replete with emotions in communication. Nevertheless there are references of women orators in Indian history advocating oratory skills in debates which is one of the most powerful platforms of language and communication.

Gargi Vachaknave is one of the erudite, ancient philosopher and orator in Vedic Literature during 9th to 7th Century BCE. She has also been called as *Brahmavadini*, a person with profound knowledge. She is known for her knowledge and skill in her debates and posing challenging questions on the issues of *atman* (soul) to her opponents thereby



bewildering them. She remained celibate throughout her life and had written hymns is *Rigveda*.

Amidst the domination of male counterparts there were women who had faced the challenges and outshone men during Vedic times in India. So the theory of stifled communication of women is indeed questionable while considering the contribution of women in language and literature.

Auvaiyar the name literally means *Respectable Woman* is extolled as a grand old lady of Tamil poetry who has captivated the readers with her half line verses. Her versus are shorter than the *Thirrukural*, verses composed in short couplets. There are references of three Auvaiyars in Tamil literature. But Auvaiyar II who was the contemporary of Kambar and Ottakoothar during the reign of Chola dynasty in tenth century, is well known for her wit and knowledge. Her poetic expertise is more pronounced **when** she confronts Kambar **who** questions the validity of her poetry. There were references over twenty five Vedic poetesses and over twenty five Tamil Sangam poetesses in Tamil literature vouching the knowledge and intelligence of women during Vedic times.

The lines 3.55 – 3.56 in *Manu Smriti* proclaim that *women must be honored and adorned* nevertheless it also states in verses 5.147-5.148 that *a woman must never seek to live independently*. The life of women always depends on the socio cultural and political environment. Hence, there is always impedance in women's progress yet women relentlessly strive to assert their individual skill and competence.

Andal, a remarkable poetess of 7th century has penned *Thirupavai* effusing her love for Hindu God Lord Vishnu. She is the only female poetess enlisted among 12 *Alvars* who had spread *Vaishnavam* in South India. *Thiruppavai* is a collection of 30 versus that express Andal's unconditional love and devotion for Lord Krishna. Her poetic proficiency that is embedded in romanticism is lucidly revealed through her verses. *Thiruppavai* is even sung today by the devotees in the Tamil month of *Margazhi*, which falls in the month of December. She appeals to Lord Vishnu to marry her and liberate her from the world ties. Andal *Thiruppavai* exemplifies feminine

consciousness and her freedom she enjoys to choose her path.

Hence, there is a question in every scholar's mind while expounding feministic theories of the west and the east. Indian literature lucidly validates the contribution of women in language and literature even during Vedic times. But patriarchal system of India has impeded the growth of women literature and more feminine writings have moved towards the literary genre of prose that paved way to the emergence of woman novelists.

CRITICISM ON FEMININE WRITINGS

Helene Cixous in her essay *The Laugh of the Medusa* refers to the French theory of *écriture féminine* that characterizes feminine writing by disruptions in the texts with gaps, silences, puns, rhythms and has been viewed as eccentric, incomprehensible and inconsistent and opines that the women speak the borrowed language to hold their identity, an attempt to be at par with men to affirm their wit and knowledge. The statement of women communication as stifled with pauses and gaps has to be revamped. For example, Emily Dickenson's poems are honest representations of emotional upheavals that women face in the society. Her poems exemplify the theory of *écriture féminine*, an imperfect translation of feminine writings.

Because I could not stop for Death

He gently stopped for me

The Carriage held but just Ourselves

And Immortality.

The above stanza illumines feminine consciousness of the poet where the hierarchy of Reason/passion is subverted and passion permeates the scenario of the poem and this poem exemplify m the theory of *écriture féminine* as it has been viewed as unstable, lack consistency. But the honest presentation of feelings and passions has stolen many hearts.

DECONSTRUCTION AND FEMINISM

Jacques Derrida through his theory of deconstruction rejects the binary concepts and categorization such



as Reason/passion, Man/woman opining that they are arbitrary and inherently unstable. The deconstruction theory subverts *logocentrism*. Male centric discourses are deconstructed and Helen Cixous theory attempts to acquit women writings from restrictions which had been chained with austere religious tenets and derogatory male centric criticisms.

Jacques Marie Emile Lacan, a French psychoanalyst and psychiatrist, registers his controversial theories on feministic language. He affirms that language is masculine and reflects male ideology. Julia Kristeva, a French critic refutes the theory and opines that anything that deviates from the prescribed norm is labeled as *different*, a substandard work. Therefore the pronoun 'I' implicitly refers to male voice affirming male dominance. Women voice is muted and every art and literature is perceived through male's vision. While perusing the texts of the past the language refers only to *Man* and every concept is penned through Man's perceptions.

The Book of the City of Ladies is one the most noteworthy book penned by Christine de Pizan who attempts to give a befitting response to the poem *La Roman de la Rose* (The Romance of the Rose), a misogynistic presentation of a famous French poet Jeun de Meun in around 1405. Saddened by the depiction of women in the society, Christine endeavors to create a metaphorical city and three personified women of virtues- Reason, Rectitude and Justice are presented to demonstrate the accomplishments of women. Her inclination to validate the virtues of women in the society contradicting the misogynist literary works where women are projected as products is lucidly revealed. The allegorical city is ruled by the virtues of women. The book deals with the female perspective and voices the issues pertaining to women. The motif of the book is to propel women to communicate and engage in intellectual dialogues.

CONCLUSION

In the past while referring to human the term *Man* is used, for instance, the proverbs like *Man* is superior animal, Practice makes *Man* perfect lucidly reveal the

fact that women were not considered as an individual.

The impact of religion and literature on human psyche is vividly established in the literary texts affirming male supremacy. Milton's *Paradise Lost* incites mixed responses from the critics debating if he is a misogynist and the critics like Anna K Junke subtly agree that *This is not to say that Milton reject patriarchy*.(Anna, 50). Yet, women language and literature manage to develop asserting their independent style. But feminine writing is assumed to confine under the paradigm of domesticity and the language used by the women authors are always viewed under the lens of masculinity. Women who have successful careers are often projected as over bearing and tough. The male psychology is molded by religious and cultural tenets placing him in a higher status. In the social hierarchy man is considered to be superior to women. Men who are seasoned with dominancy over the centuries find difficult to accept women as boss. Even today despite the promotion of women empowerment all over the world, the scholars and thinkers of women studies are dubious if the society has deconstructed the male centric discourse by converging feminine representations to the focus. The news paper daily from India, *The Indian Express* has published the notable quotes of 2020-21 contributed by the famous personalities on 3rd Jan.2022. The news paper has published 21 quotes where only one quote of a woman celebrity Ms.Veena George is published. This raises doubts in the readers' mind regarding the contribution of women's voice in the social development. There are two reasons for the poor women representations. Firstly, women celebrities lack social consciousness and secondly, the voice of the women are stifled and not given importance. Whatsoever the contribution of women to the literary field has to be taken cognizance for further promotion of women empowerment.

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Calcium Present in Tube Well Water Sample of Nipani Town

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Abstract: Normally, a flow of surface water draining through humid area contains more calcium than any other ion. Calcium is the most common cation in fresh water at 20^oc, 5.6 mg/lit dissolve. Causing pH 9.9 to 10.0. As calcium ion is relatively large, it can be hydrated & forms complexes with inorganic ions. To calculate the concentration of calcium in the present study in pond water sample were collected and analyzed every month throughout the year. So, we have studied the calcium present in pond water sample. Calcium was extremely low was 5.65 mg/lit.

Keywords: pond water sample, Pollutants, calcium

1. Introduction

It is the most abundant alkaline earth element in the earth crust derived from natural sources like carbonate, phosphates, sulphate, fluorides and silicates. Green Wald (19ml) showed that about 10% Ca ++ occurs in bicarbonate form [1,2] . Normally, a flow of surface water draining through humid area contains more calcium than any other ion (Hem 1970) calcium is the most common cation in fresh water , at 20oC , 5.6 mg/lit dissolve , causing pH 9.9 to 10.0 . As Calcium ion is relatively large, it can be hydrated and forms complexes with inorganic ions . (Mattness and Harvey, 1982).

In the present study, the levels of calcium were studied in the Tube well water sample near the vicinity of Halsiddhanath sugar factory located at Nipani. The Tube well water samples were taken in twelve glass bottles by following standard procedure[3-5]. Samples were taken from twelve bottles from various Tube wells which are located at 1. Bhim Nagar, 2. Nagoba lane, 3.Kharade lane, 4. Namar mal, 5. Shivaji Nagar, 6. Andolan Nagar, 7. Kmgar Chowk, 8.Ambale polt, 9. Mestri Nagar, 10. Ramling Temple, 11. Mestri Nagar, 12. Bhise lane. The samples were collected every month throughout the every year and analyzed in laboratory for the levels of CALCIUM.

2. Materials and Methods

Methodology for determination of calcium Volumetric determination of calcium was carried out by EDTA method . In this method, EDTA combines first with calcium and when pH is made sufficiently alkaline , magnesium is precipitated as hydroxide and the indicator murexide combine colour turns to violet at pH 12 to13.

The concentration of calcium ions (Ca+2) is determined using the following formula. Calcium (mg/lit) = ml of EDTA X 400.08 / ml of sample.

3. Results and Discussion

Concentration of calcium in present study ranged from minimal 2.37 mg/lit. to maximal 62.56 mg/lit. in pond water. (Table N0 134) Its average value was higher in winter 23.42 mg/lit .[6-8], followed in summer 25.58 mg/lit and in rainy season 18.11mg/lit and in tub well water sample).

A similar pattern was observed by Varghese et . al . (1992).The impurity is comparatively less than industrial and pond water . Higher concentration of calcium was found at , nagoba lane , charade lane & Nirmal Mal due to slum areas disposal of waste and human’s interference pond water is more polluted. (Fig .No. 29) . Their station wise, month wise and season wise profiles are depicted in Fig . 50. It has been found that disposal of sewage and washing cattles, human activities like bathing , washings cloths are the major sources contributing to calcium content in water [9-11] .

Table 1: Calcium (mg/lit) of Tube well water sample

Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	19.81	16.34	20.05	23.26	24.69	24.14	20.08	18.44	16.05	17.12	21.60	22.25
2	23.20	32.80	19.27	24.82	24.90	16.81	16.20	24.06	15.35	16.20	21.05	23.62
3	32.81	27.24	26.20	29.81	34.45	20.05	14.45	28.08	14.32	15.30	28.07	30.37
4	28.07	46.41	32.07	29.75	23.21	39.20	11.21	20.31	16.21	16.20	62.56	40.29
5	59.32	17.64	56.11	43.70	6.42	67.25	12.31	13.25	12.14	12.15	52.10	51.72
6	37.60	4.37	24.06	32.81	5.65	85.50	25.72	17.18	18.21	19.30	36.25	36.40
7	23.20	19.31	20.81	23.24	4.81	25.50	12.82	26.17	20.08	20.09	41.02	34.63
8	20.05	18.70	20.05	18.42	3.25	25.60	9.62	20.32	34.21	34.21	27.21	23.70
9	20.06	17.64	18.17	19.05	6.24	30.72	19.25	30.20	35.71	41.05	17.63	18.85
10	18.40	17.62	17.65	20.18	4.02	26.27	17.64	21.03	20.04	20.05	20.01	21.05
11	18.46	16.98	20.05	17.62	3.21	26.30	14.45	14.21	14.21	14.12	16.40	17.21
12	19.25	20.85	40.08	40.29	34.40	20.17	21.65	15.60	13.21	10.21	26.40	21.45

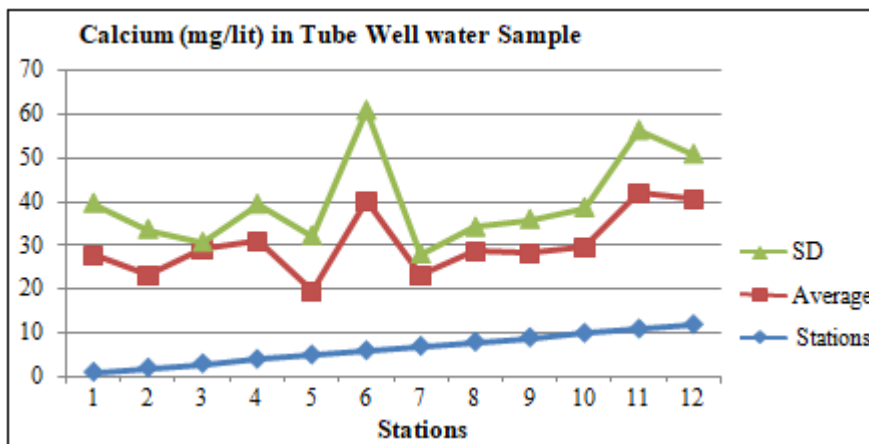


Figure 1: Calcium (mg/lit) in Tube well water sample

Stations	Average	SD
1	26.69	11.96
2	21.33	10.35
3	26.21	1.50
4	26.91	8.57
5	14.60	12.62
6	33.96	20.97
7	16.28	4.74
8	20.74	5.46
9	19.15	7.80
10	19.67	9.02
11	30.86	14.50
12	28.46	10.42

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Intensity of Colour Present in Industrial Water Sample (Treated) of Nipani Town

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Abstract: *The Industrial water samples (Treated) were taken from the vicinity of Halsiddhnath sugar factory from Nipani town and analysed every month throughout the year. We have studied the intensity of colour in industrial water sample (Treated). Intensity of colour content was analysed as per Indian Standard Institution and Indian Council of Medical Research have suggested 5 units as desirable units of colour and 25 units as an excessive limit. higher than the desirable limit of 5 Units up to 25 Unit. The seasonal analysis indicated that the Intensity of colour were generally higher in summer it shows maximum average intensity of colour in industrial treated effluent 0.09 units, in winter 0.07 unit than their levels in rainy season 0.02 unit.*

Keywords: Industrial (Treated) water sample, pollutant, Intensity of colour

1. Introduction

Due to rapidly increased in population the demand for water resources also increased & water pollution problem arises. In the present study, the physical parameters such as colour of water is changed due to industrial effluent, domestic wastes and human's interference which affected on pure quality of water as well as human beings are suffering by water borne diseases, its affected on human health. So the analysis of intensity of water colour is very important.

In the present study, the intensity of water colour were studied in the industrial (Treated) water samples at Nipani. The industrial water samples (Treated) were taken from the vicinity of Halsiddhanath Sugar Factory in the glass bottles by following standard procedure.. The samples were collected every month throughout the year and analyzed in laboratory to determine the intensity of colour in industrial effluent..

2. Materials and Methods

The colour of water is found to be yellow or brown which occurs usually due to the presence of organic matter derived from soil, vegetation, and its decay. It could also be due to metallurgical effluents the colouring organic matter should, therefore, be removed from water and this can usually be achieved by the use of Coagulants (flocculent) in settlement tanks and passage through rapid sand filters.

Absence of in water sample is a prerequisite in the determination of colour, as it interferes in the

measurements colour changes is also caused by change in P^H so the results should be accompanied with the P^H of the sample at which the colour has been determined.

Procedure –

The colour of water samples were quantified as absorbance at 367.5 mm using UV- Visible Spectrophotometer.

3. Results and Discussion

Colour of water may be due to industrial wastes, humus, peat materials, plankton, natural metallic ions (e.g. iron, and manganese) etc. Indian Standard Institution and Indian Council of Medical Research have suggested 5 units as desirable units of colour and 25 units as an excessive limit. Intensity of colour recorded a minimum of 0.005 unit in Industrial treated effluent in June and maximum of 0.197 unit in industrial treated effluent in December (Table.No - 13)

The Intensity of colour varied with seasons in summer it shows maximum average intensity of colour in industrial treated effluent 0.09 unit, followed in winter 0.07 unit and in rainy season 0.02 unit (Table No – 14). The maximum intensity of colour observed at water sampling site No.4.(Fig No -1) is attributed to continuous discharge of organic matter from domestic waste, industrial effluents, provision of soil, washing, bleaching and leaching of agricultural waste. Sampling site No – 7 showing an excess of algae growth indicated increasing nutrients level in water.

Table 1: Intensity of colour in Industrial (Treated) Water Sample

Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.420	0.078	0.040	0.125	0.278	0.005	0.000	0.042	0.046	0.042	0.020	0.207
2	0.028	0.217	0.080	0.087	0.083	0.00	0.000	0.005	0.028	0.072	0.068	0.078
3	0.135	0.153	0.084	0.084	0.142	0.00	0.000	0.010	0.053	0.072	0.080	0.096
4	0.220	0.150	0.240	0.164	0.340	0.210	0.000	0.004	0.112	0.113	0.114	0.187
5	0.276	0.156	0.245	0.162	0.321	0.121	0.000	0.008	0.118	0.118	0.127	0.197
6	0.154	0.057	0.155	0.163	0.158	0.675	0.000	0.002	0.008	0.010	0.014	0.037
7	0.064	0.037	0.078	0.134	0.096	0.000	0.000	0.005	0.009	0.012	0.013	0.045
8	0.062	0.046	0.050	0.092	0.112	0.000	0.000	0.003	0.010	0.030	0.027	0.034
9	0.086	0.00	0.037	0.098	0.073	0.040	0.000	0.108	0.009	0.008	0.012	0.047
10	0.057	0.012	0.033	0.094	0.083	0.000	0.000	0.025	0.017	0.010	0.024	0.042
11	0.045	0.016	0.057	0.121	0.066	0.000	0.000	0.034	0.011	0.007	0.008	0.025
12	0.123	0.040	0.104	0.090	0.072	0.000	0.000	0.018	0.007	0.008	0.034	0.070

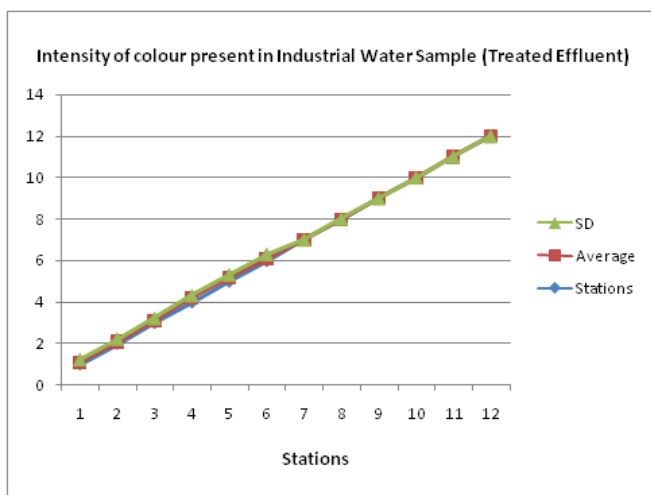


Figure 1: Intensity of colour in Industrial Water Sample (Treated Effluent)

Stations	Average	SD
1	0.1	0.1
2	0.1	0.1
3	0.1	0.1
4	0.2	0.1
5	0.2	0.1
6	0.1	0.2
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0

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BOD Present in Pond Water Sample of Nipani Town

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Abstract: During present investigation of pond water pollution was calculated with the measurement of level of Biological Oxygen Demand (BOD) contents. The pond water samples were collected from twelve ponds from Nipani town near sugar factory and analyzed every month throughout the year. So, we have studied levels of BOD in pond water sample. BOD was 30 mg/lit. The seasonal analysis indicated that the levels of BOD were generally higher in summer and winter than their levels in rainy season.

Keywords: Pond water sample, pollutant, Biological Oxygen Demand (BOD)

1. Introduction

Industrialization and urbanization created serious problems of water pollution of surface water i.e. ponds, underground water tube-wells. In developing countries like India, this problem has become acute day by day.

In the present study, the levels of BOD were studied in the vicinity of Halsiddhanath sugar factory located at Nipani [1-2]. The pond water samples were taken from twelve underground tube wells in the glass bottles by following standard procedure. Samples were taken from twelve underground tube wells which are located at 1. Bhim Nagar, 2. Nagoba lane, 3.Kharade lane, 4. Namar mal, 5. Shivaji Nagar, 6. Andolan Nagar, 7. Kmgar Chowk, 8.Ambale plot, 9. Mestri Nagar, 10. Ramling Temple, 11. Mestri Nagar, 12. Bhise lane. The samples were collected every month throughout the every year and analyzed in laboratory for the levels of BOD [3-4].

2. Materials and Methods

BOD is the the amount of oxygen required by bacteria , while stabilizing decomposable organic matter under aerobic conditions. The decomposition of oraganic matter and metabolic activities of bacteria result in utilization of a part of the dissolved oxygen . The depletion of oxygen is considered as a measure of the amount of degradable organic matter in the sample under analysis.

Hammer (1977) gave details about the BOD test for polluted water and treated. effluents . This test was performed for the samples from industrial effluents in the present area under the study

Calculations- BOD = (Initial D.O – Final D.O) / ml of water volume of BOD bottles

3. Results and Discussion

The variations in the BOD were observed in pond water samples. Pond water samples higher level of BOD in February at sampling station 21 And corresponding low level of DO observed , clearly indicated that , the waste was mostly biodegradable and of human origin. The high level of BOD at sampling station 21 and 22 was more than the desirable limit (30mg/lit) .Suggested by Bureau of Indian Standards (Fig-20). At many places, BOD values in winter found in the range of 0 to 285 mg /lit, indicating wider fluctuations due to variable natural & man-made conditions in the pond water. The seasonal variations in (Table No-70) clearly shows that coverage value for various seasons , registering higher values in summer i.e. 31.49 mg/lit, followed in rainy season was 9.89 mg/lit. and in winter season was 6.40 mg /lit . This trend is similar to that observed by Varghese et.al (1992) in their studies. The trend in variation in BOD was due to variation in the quantum of natural flow surface water as a function of season as well as variation in the quantum of waste discharged. It is observed that higher level of BOD was due to flow of domestic as well as industrial waste. (Trivedi, 1998)

Table 1: Biological Oxygen Demand (mg/lit) in Pond Water Sample

Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10	40	6	60	55	20	10	11	12	11	12	10
2	5	32	120	20	2	19	12	13	13	14	16	11
3	8	90	16	21	4	13	8	9	10	11	12	8
4	40	87	280	45	105	50	35	30	29	32	35	25
5	16	37	18	43	4	26	15	16	17	18	19	14
6	20	35	50	8	7	24	14	16	18	16	18	12
7	10	29	28	10	13	30	16	18	20	20	22	17
8	5	30	60	14	18	6	5	4	5	4	6	4
9	12	28	61	12	14	9	4	5	7	8	8	6
10	15	40	63	11	55	0	8	10	12	7	10	7
11	12	20	4	3	8	8	6	7	8	8	9	29
12	10	34	7	20	5	50	30	35	36	33	34	25

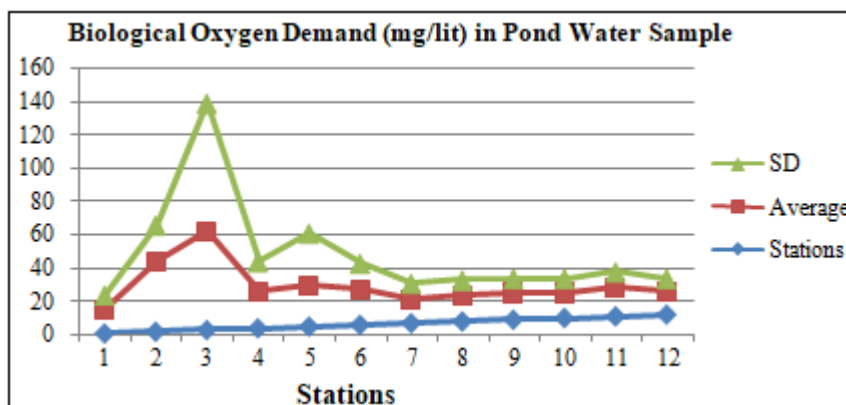
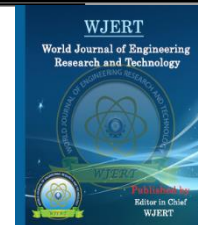
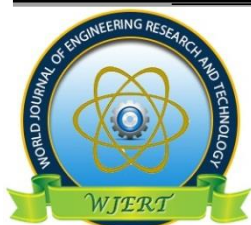


Figure 1: Biological Oxygen Demand (mg/lit) in Pond Water Sample

Stations	Average	SD
1	14	9
2	42	22
3	59	77
4	22	18
5	24	32
6	21	16
7	14	10
8	15	10
9	16	9
10	15	9
11	17	10
12	14	8

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ANALYSIS OF CALCIUM IN KARAVE POND WATER SAMPLE, NAVI MUMBAI

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ABSTRACT

Normally, a flow of surface water draining through humid area contains more calcium than any other ion. Calcium is the most common cation in fresh water at 20°C, 5.6 mg/lit dissolve. Causing pH 9.9 to 10.0. As calcium ion is relatively large, it can be hydrated & forms complexes with inorganic ions. To calculate the concentration of calcium in the present study in pond water sample were collected and analysed for six month. So, we have studied the calcium present in

pond water sample. Calcium was extremely low was 5.65 mg/lit.

KEYWORDS: pond water sample, Pollutants, calcium.

INTRODUCTION

Historically it is a good wetland site but due to concepts of modern development it is now converted in to a badly managed water tank which is a place for dumping garbage. It is the most abundant alkaline earth element in the earth crust derived from natural sources like carbonate, phosphates, sulphate, fluorides and silicates. Green Wald (19ml) showed that about 10% Ca ++ occurs in bicarbonate form.^[1,2] Normally, a flow of surface water draining through humid area contains more calcium than any other ion (Hem 1970) calcium is the most common cation in fresh water, at 20°C, 5.6 mg/lit dissolve, causing pH 9.9 to 10.0 . As Calcium ion is relatively large, it can be hydrated and forms complexes with inorganic ions. (Mattness and Harvey, 1982).

In the present study, the levels of calcium were studied in the karave pond water sample, Navi Mumbai. The pond water samples were taken in twelve glass bottles by following standard procedure.^[3-5] Samples were taken from twelve bottles from karave pond water sample, navi Mumbai. The samples were collected for six months and analysed in laboratory for the levels of CALCIUM.

MATERIALS AND METHODS

Methodology for determination of calcium volumetric determination of calcium was carried out by EDTA method. In this method, EDTA combines first with calcium and when pH is made sufficiently alkaline, magnesium is precipitated as hydroxide and the indicator murexide combine colour turns to violet at pH 12 to 13.

The concentration of calcium ions (Ca²⁺) is determined using the following formula.

$$\text{Calcium (mg/lit)} = \text{ml of EDTA} \times 400.08 / \text{ml of sample.}$$

RESULTS AND DISCUSSION

Concentration of calcium in present study ranged from minimal 5.65 mg/lit. To maximal 68.74 mg/lit. In pond water. (Table N0 132) Its average value was higher in winter 29.72 mg/lit.^[6-8], followed in summer 26.08 mg/lit and in rainy season 19.90 mg/lit and in pond water sample (Table N0: 133).

A similar pattern was observed by Varghese et. al. (1992). Higher concentration of calcium was found at Karave pond due to disposal of garbage waste and human's interference pond water is more polluted. (Fig .No. 29). Their station wise, month wise and season wise profiles are depicted in Fig. 50. It has been found that disposal of sewage and washing cattle's, human activities like bathing, washings cloths are the major sources contributing to calcium content in water.^[9-11]

Table 1: Calcium (mg/lit) of karave pond water sample.

Stations	Jan	Feb	Mar	Apr	May	Jun
1	19.84	16.31	20.04	23.26	21.63	24.14
2	23.20	31.75	19.27	24.82	24.18	16.21
3	31.85	27.26	27.26	29.82	16.71	18.05
4	28.07	46.41	32.07	30.70	22.20	37.25
5	59.34	17.65	51.21	44.75	6.41	65.40
6	17.65	4.30	24.05	32.81	5.65	81.50
7	23.20	19.30	20.91	23.27	4.82	24.50
8	20.05	19.15	20.05	18.42	3.26	25.65
9	18.44	17.60	19.26	20.06	6.42	30.72

10	18.50	19.50	17.68	21.81	4.01	26.30
11	19.40	16.30	20.07	17.60	3.22	23.21
12	20.15	21.22	40.09	40.29	35.35	26.16

Stations	Average	S.D
1	19.98	2.60
2	21.51	4.87
3	23.29	6.74
4	30.82	15.36
5	34.48	21.98
6	29.33	19,90
7	22.71	9.77
8	20.10	8.09
9	24.80	13.65
10	18.80	5.36
11	20.91	16.03
12	30.09	17.60

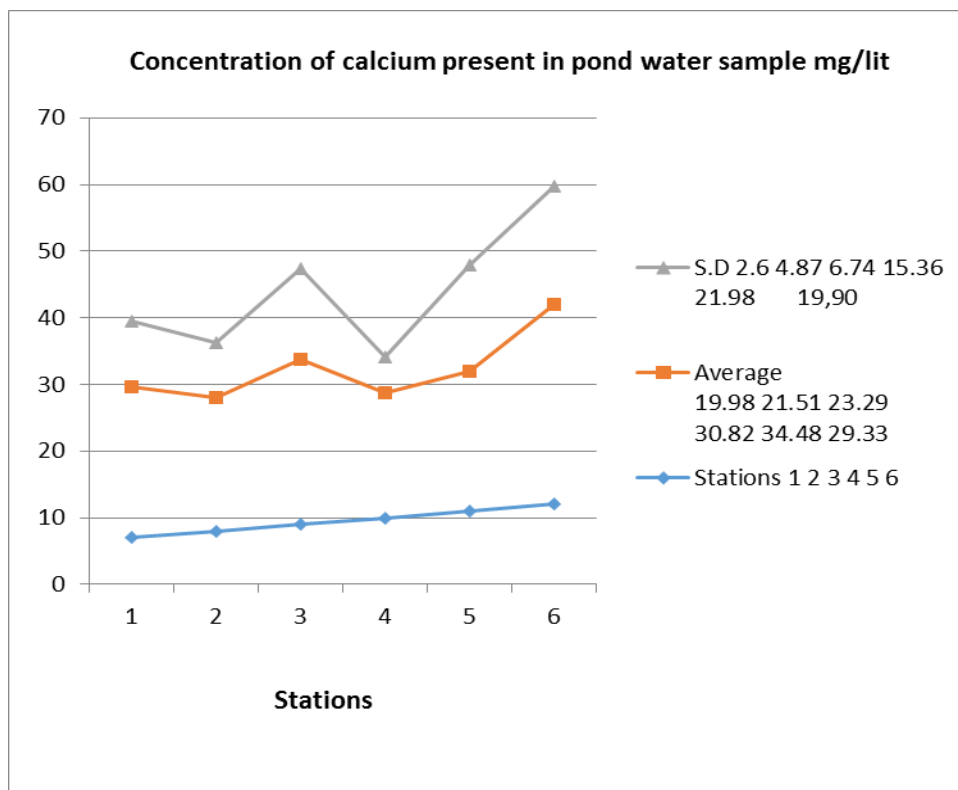


Fig. Concentration of calcium (mg/lit) in pond water sample.

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Assessment of Turbidity In Pond Water Sample, Juinagar, Navi Mumbai Mumbai.

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ABSTRACT

The pond water samples were taken from different stations of Juinagar, Navi Mumbai and analysed every month for six months. We have studied the Turbidity in pond water sample. The seasonal analysis indicated that Pond water sample content was found higher in summer and winter than their levels in rainy season than the permissible and excessive limits of turbidity as specified by the Ministry of Health, Government of India is 5 and 25 mg /lit. Respectively.

Key words: Pond water sample, pollutants, Turbidity.

INTRODUCTION

Turbidity of water is an important parameter for characterising water quality as turbidity allows an estimate of concentration of undissolved substances. The measurement of turbidity is a ratio of intensity of light falling on the matter to intensity of light scattered by undissolved matter or it is a ratio of light transmitted through the water in straight line to intensity of incident light. Nephlo- turbidimeter was used for the measurement of turbidity in the present work.(A K Rana; M.J.Kharodawala; J M Patel; and H R Dabhi 2002) The present of turbidity has significant effect on photosynthetic zone , due to constant transmitting the light . particulate matter i.e. organic or inorganic or excessive growth of biota , is responsible for the change in water quality , rendering it unfit for drinking purpose. (N Manivasagam; 1984)

In the present study, the levels of Turbidity were studied in the pond water sample , Juinagar , Navi Mumbai .The pond water samples were taken in twelve glass bottles by following standard procedure[3-5]. Samples were taken from twelve bottles from various ponds which are located at 1.Sector - 4 , 2. Balaji Mandir, 3 Sector -16, 4. Nirmal Nagar 5. Shivaji Nagar, 6.Sector -28. The samples were collected every month throughout the Six months and analyzed in laboratory for determined the levels of turbidity.

MATERIALS AND METHODS

Turbidity is very important test in the quality control of treatment works. In the pre-treatment process, type of the treatment required and the amount of the coagulant require depends on turbidity. In fact, efficiency of the pre-treatment and filtration units is evaluated from the amount of turbidity removed. The determination of turbidity is interfered by the presence of debris and other rapidly settable matter. True

colour in the sample also reduces the value of turbidity. Some of the light is scattered by the suspended particles. The scattering of light is directly proportional to the turbidity. The turbidity of a sample is therefore, measured from the amount of light scattered by the sample, taking a reference with standard turbidity suspension. The permissible and excessive limits of turbidity as specified by the Ministry of Health, Government of India is 5 and 25 mg /lit. Respectively.

Standard Turbidity Suspension:

Prepare 40 NTU solutions by diluting 10 ml of stock solution to 100 ml.

RESULTS AND DISCUSSION

In the present study we observed from site statistics that turbidity of water was higher in Balaji Mandir and Shivaji Nagar confluence of discharge of industrial effluents. Site No 2 and 5. (Table No – 1), because of erosion of soil, leaching of agricultural waste and presence of natural undissolved matter.

An average seasonal turbidity of pond water in summer seasons is 32.70, in rainy seasons is 35.30 and in winter seasons 11.50 respectively. (Fig -1)

Table 1: Turbidity (mg/lit) in Pond water sample of Juinagar, Navi Mumbai

Stations	Summer	Rainy	Winter
1	5.60	6.04	5.40
2	2.54	7.00	6.80
3	4.22	2.20	8.51
4	12.51	3.10	20.10
5	12.80	40.15	5.35
6	60.21	50.15	32.30

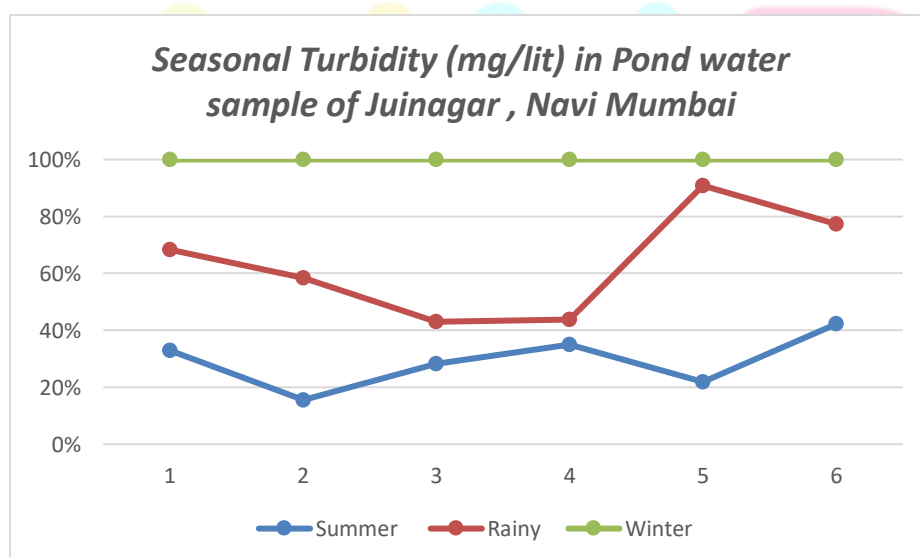


Fig. 1: Turbidity (mg/lit) in Pond Water Sample (Treated Effluent)

Average	32.70	35.30	11.50
S.D.	47.23	35.48	7.77

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Electrical Conductivity Present in Tube Well Water Sample of Ghansoli, Navi Mumbai

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ABSTRACT: The Tube well water samples were taken from Ghansoli, Navi Mumbai and analysed every month for six months. We were studied the Electrical Conductivity in tube well water sample. Tube well water sample content was found higher than the desirable limit of (18.4 °C to 30.2°C). The seasonal analysis indicated that the Electrical Conductivity were generally higher in summer and winter than their levels in rainy season.

KEYWORDS: Tube well water sample, pollutant, Electrical Conductivity.

I. INTRODUCTION

The ability of substance or water to conduct an electric current is called Conductivity. Specific electrical conductance is conductance by a cubic centimetre of a substance or water at 25 °C or specified temperature. Conductivity of water, therefore gives an idea about the total dissolved ionisable solids in it. Naturally conductance of water increases with an increase in the concentration of dissolved and dissociable substances.

In the present study, the Electrical conductivity were studied in tube well water samples at Ghansoli, Navi Mumbai. The tube well water samples were taken from six tube wells in the glass bottles by following standard procedure. Samples were taken from six tube well water samples, which are located at 1. Plaza Building, 2. Shivam Mall, 3. Nisarg Tower, 4. Sadguru Apartment 5. Tulsi Tower, 6. Platinum Acre, The samples were collected every month for six months and analysed in laboratory and determined the Electrical Conductivity.

II. MATERIALS AND METHODS

Electrical Conductivity is an ability of a water to conduct an electric current is called electric conductivity. It is generally measured with the help of a conductivity meter, having a conductance cell containing two electrodes of platinum black or carbon. These electrodes are mounted rigidly and placed parallel at a fixed distance conductance. When measured between these electrodes having a surface area of 1cm² and placed at a distance of 1cm is called Electrical Conductivity. It is the property of water samples, rather than that of the measuring system. The term specific conductance is also used in place of electric conductivity, but it is an absolute term. The unit of conductivity is Siemens' (s) cm⁻¹. The older unit mhos cm⁻¹ is now rarely used conductivity of most water is generally low and expressed in terms of us cm⁻¹. As ionization of solutes in water depends on temperature, conductivity results are reported at 25 °C.

III. RESULTS AND DISCUSSION

Distilled water has conductivity in the range of 0.5 to 5 micro Siemens'/cm. On the standard, an average seasonal conductivity of tube well water 5 ranged from minimum 120.7 micro Siemens'/cm to maximum 843 micro Siemens'/cm.

On the basis of three seasons, an average electrical conductivity of water is highest during winter season 289.66 micro Siemens'/cm, in rainy season 351.2 micro Siemens'/cm and in summer season was 328.7 was micro Siemens'/cm due to dilution factor and variation in ground water discharges.



Table 1: Electrical Conductivity Tube Well water sample of Ghansoli, Navi Mumbai

Stations	Jul	Aug	Sep	Oct	Nov	Dec
1	216.00	162.40	162.70	166.40	676.70	183.90
2	290.00	180.20	169.80	178.00	182.60	150.40
3	420.30	380.50	496.30	317.50	314.60	220.40
4	348.50	130.50	134.50	130.50	1443.0	480.30
5	340.70	167.30	168.30	167.50	1170.0	674.00
6	410.00	163.50	163.50	163.20	590.70	320.40

Tab. 2: Electrical Conductivity Tube Well water sample of Ghansoli , Navi Mumbai

Stations	Average	SD
1	298.05	210.61
2	393.57	267.87
3	356.59	253.66
4	282.88	164.29
5	323.85	181.38
6	429.10	324.47

Station	Summer	Rainy	Winter
1	230.17	235.65	161.21
2	260.15	180.60	162.41
3	390.14	225.40	430.18
4	530.35	220.35	525.35
5	412.85	254.36	250.50
6	170.90	245.68	225.75

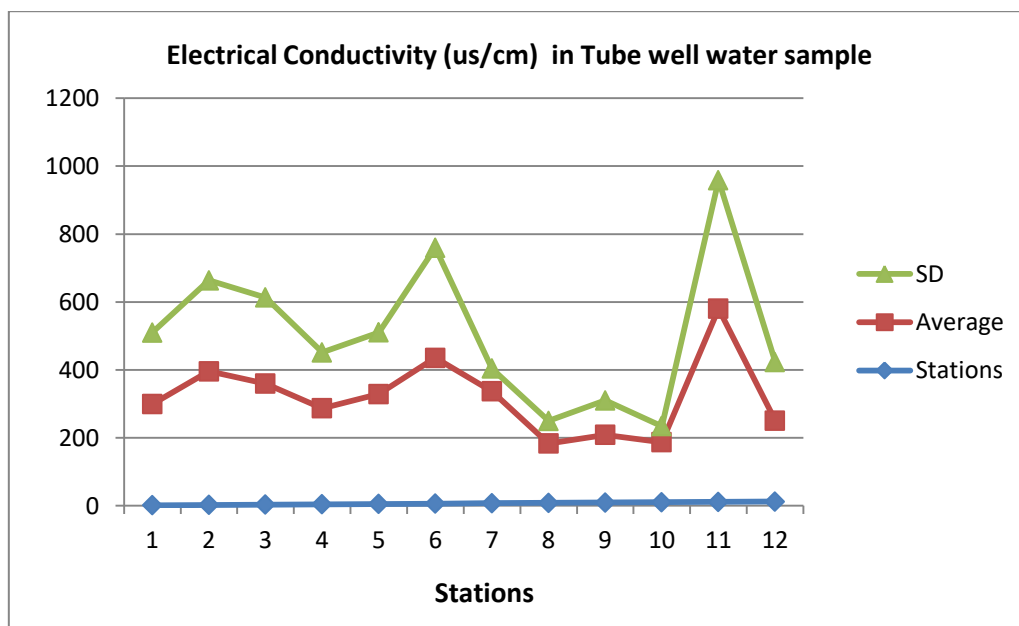


Fig 1: Average Seasonal Electrical Conductivity (us/cm) of Tube Well water sample of Ghansoli , Navi Mumbai



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EFFECT OF CHEMICAL OXYGEN DEMAND (COD) PRESENT IN BOREWELL WATER SAMPLE OF VASHI, NAVI MUMBAI.

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Abstract:

Vashi is a popular residential locality in Navi Mumbai just along side the Mumbai – Pune Highway. Vashi has and continues to attract the white collar employees due to its affordable rental and property rates, as compared to the rest of Mumbai. Vashi is a well planned locality and comprises residential and commercial properties here. With a burgeoning population and limited potable water resource available, many establishments are turning to borewells for water.

For the study purpose six water samples were taken from six tube-wells from Vashi and analysed every month throughout the year. We have studied levels of chemical oxygen demand (COD) in tube –well water sample. COD content was found higher than the desirable limit of COD (150) mg/L.

Key words: Tube-well water, Pollutants, Chemical oxygen demand (COD).

Introduction:

Water plays an essential role in human life. Fresh water is one of the most important resources crucial for the survival of all the living beings. It is even more important for the human being as they depend upon it for food production, industrial and waste disposal. Human and ecological use of borewell water depends upon ambient water quality. Human alteration of the landscape has an extensive influence on watershed hydrology Gurnathan, 2006[3]. Borewell water plays a vital role in human usage. The consequences of urbanization and industrialization leads to spoiling the ground water is explored in rural especially in those areas where other sources of water like dam and river or a canal is not considerable. During last decade, this is observed that borewell water polluted drastically because of increased human activities. Frequently in many cases of water borne diseases has been seen which a cause of health hazards. An understanding of water chemistry is the fundamental knowledge of the multidimensional aspect of aquatic environmental chemistry which involves the source, composition, reactions and transportation of water. The quality of water is of vital concern for the mankind since it is directly linked with human welfare. It is a matter of history that facial pollution of drinking water caused water-borne diseases.

In the present study, to study the borewell water, collected from different locations in Vashi region, India and the data were compared with WHO standard data.

Material and Methods:

Trivedi and Goel Suggested, chemical oxygen demand (COD) is the measure of oxygen consumed during oxidation of the oxidisable of the organic matter by a strong oxidising agent potassium dichromate solution and concentrated sulphuric acid in presence of mercuric sulphate to neutralize the effect of chlorides and silver sulphate. The (catalyst) the excess of potassium dichromate is titrated against ferrous ammonium sulphate using ferroin as an indicator. The amount of potassium dichromate is proportional to the oxidisable organic matter present in the sample.

For study purpose six sites around Vashi residential area were selected. Water samples were collected monthly from selected sites during June 2021 to November 2021. Following sites were selected for study purpose. Table No.1- Sampling Sites Samples were collected in clean glass bottles. The bottles were rinsed with the groundwater to be taken for analysis. Collected samples were analyzed using an aliquot of 20 ml water sample was taken in 250ml of COD flask, 10 ml of 0.25 N K₂Cr₂O₇ Solution along with a pinch of silver sulphate and mercuric sulphate were added to it. An aliquot of 30 ml concentrated sulphuric acid was also added to the mixture. This solution was refluxed for 2 hours and then cooled to room temperature. The volume was made to 140 ml. From this, 25 ml aliquot was used for titration, using 2.3 drops of ferroin as an indicator. The solution was titrated against 0.1 N ferrous ammonium sulphate until it turned reddish brown from bluish green. COD Calculation of Chemical Oxygen Demand (COD) mg/lit. of the sample was estimated using the formula = ml of FAS X8X1000XN / ml of sample titrated Where FAS = Ferrous ammonium sulphate, N = Normality of FAS.

RESULTS AND DISCUSSION

Analysis of water samples collected from tubewell water sample showed that COD values ranged in the average concentration of COD is found higher than the desirable limit of COD (150 mg/L) i.e. 18.12 mg/lit in June at sampling station -2 low COD was found and 140.09 mg/l in September at sampling station -4. high COD was found in tube-well water sample in the present study.

Station 3,5 lower COD level observed during Rainy season as compare to summer season and followed in winter season at various sampling stations and station 1,4 &2 higher COD level observed during winter season, as compare to summer season and followed in rainy season due to waste material brought in during rainy season which gets deposited along the banks during summer, coupled with low microbial activity. (Table 1 and 2).

Average Chemical Oxygen Demand (COD) is 58.93 mg/lit in June and Average Chemical Oxygen Demand (COD) is 41.24 mg/lit in September. (Fig-1) It's adversely affected on human health, plants and animals.

Table -1: Chemical Oxygen Demand (COD) (mg/lit) in Tube well Water Sample

Stations	June	July	August	September	October	November
1	55.70	30.06	52.80	38.04	35.60	38.49
2	18.12	60.80	35.47	37.37	20.48	30.25
3	45.70	28.20	20.35	45.07	20.41	31.37
4	140.17	85.20	87.37	140.09	91.40	30.04
5	81.72	45.47	40.38	47.70	39.40	57.08
6	70.80	43.62	50.70	46.18	40.60	60.09

Table - 1 : Chemical Oxygen Demand (COD) mg/lit in Tube Well Water Sample

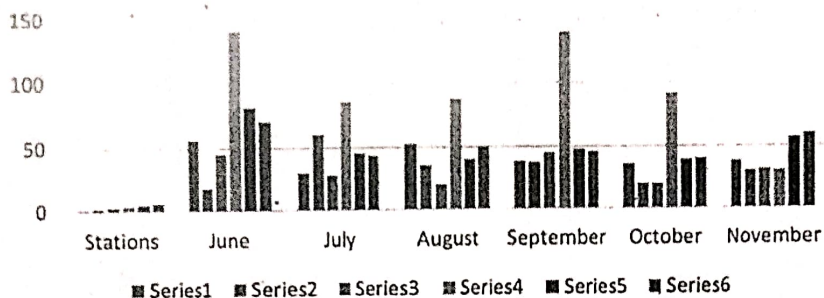


Fig. 1: Chemical Oxygen Demand (COD) (mg/lit) in Tubewell Water Sample

Average	58.93	48.27	42.78	58.74	47.20	41.24
S.D.	36.87	40.78	25.54	33.89	28.79	24.44

Fig - 1 : Chemical Oxygen Demand (COD) mg/lit in Tube Well Water Sample

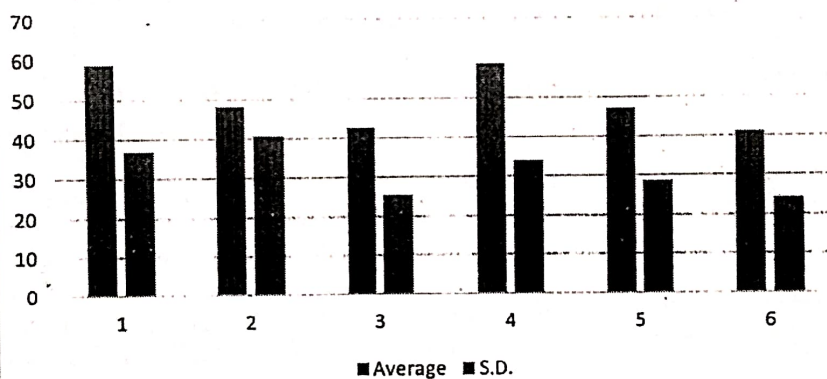
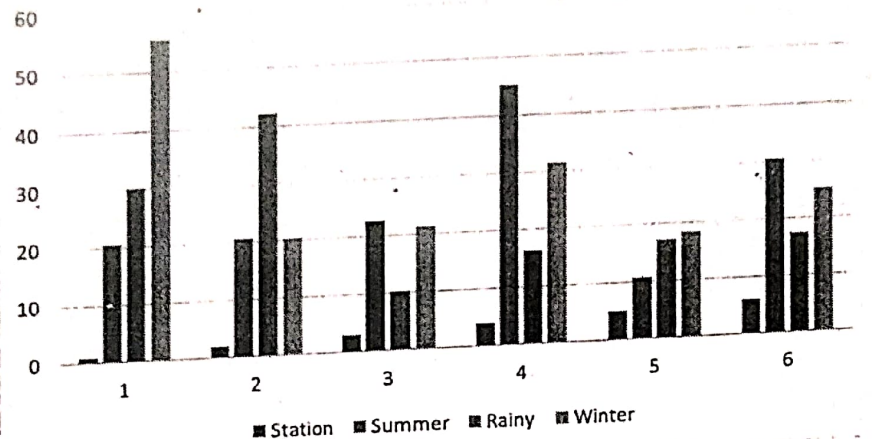


Table 2: Chemical Oxygen Demand (COD) (mg/lit) in Tubewell Water Sample

Station	Summer	Rainy	Winter
1	20.60	30.25	55.70
2	20.70	42.31	20.40
3	22.75	10.21	21.31
4	45.30	16.30	31.50
5	10.70	17.21	18.36
6	30.45	17.41	25.15

Seasonal Level of Chemical Oxygen Demand (COD) mg/lit in Tube Well Water Sample



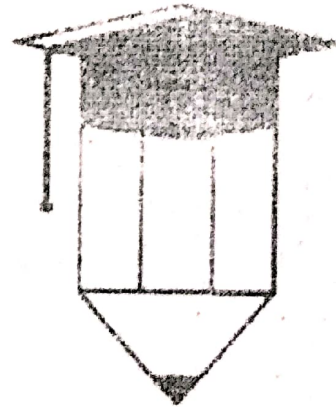
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Effect of Total Hardness Present in Industrial Water Sample of Koparkhairne, Navi Mumbai

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Effect of Total Hardness Present in Industrial Water Sample of Koparkhairne, Navi Mumbai

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ABSTRACT: Koparkhairane is an established locality of Navi Mumbai, surrounded by Ghansoli, Vashi and MIDC Industrial Area. The locality hosts a blend of co-operative housing societies (CHS), multi-storey apartment complexes, commercial office spaces and industrial entities. Some prominent residential projects. For the study purpose six industrial water samples were selected. Industrial water samples collected from selected sites monthly from Jan 2021 to June 2021 and analysed for total hardness parameters. Total Hardness in study area was found between 120 to 150 mg/l. Total hardness at all sampling stations were found below permissible limit.

KEYWORDS: Total Hardness, Industrial Zone, Permissible limit, Geology.

I. INTRODUCTION

Water is the most critical component of this earth, which is necessary for the survival of life. On this planet water is that essential and mandatory part which constitutes about 75% of our world, Earth's crust. It is one of the vital natural ingredients needed for the survival of all kinds of lives present on the surface. Water is affected by different kinds of natural and anthropogenic activities performed by human beings. Due to increase in industrialisation water pollution problem is the major problem arising day by day. In industrial waste water contains harmful chemicals, organic and inorganic products, which are directly or indirectly affecting the natural source of water and agricultural practices very severely. As a result of which the properties of natural water and aquatic animals are affected adversely by getting in contact with these chemicals may include pollutants which may be thrown in to the water body without treatment. Different types of harmful chemicals from the industries cause life in water body to get destroyed by the action of these toxic chemicals with the physiological system of the living beings, including animals as well as plants. One of the most significant origins of water pollution is due to the wastes from the industries and sewage. Through different researches, it proves that the primary cause of all this pollution by addition of harmful material in water bodies mainly because of human activities (Anthropogenic Activities) rather than the natural or geogenic processes. In many developing countries, it is proof that the primary source of degradation of water bodies is the massive rate of growing industries and urbanization well. Due to the presence of these chemicals in water, it became unhealthy for any use. Man is not only using natural resources, but he is also discharging the different types of solid, liquid waste material into the same resources, which day-by-day degrading the quality of this vital resource. Hardness is one of the properties of water, which prevents the lather formation with soap and increases the boiling point of water. Calcium and magnesium cations mainly cause hardness. Koperkhairne area is an industrially developed area having number of industries; therefore, study had undertaken to find out the Total Hardness level in industrial waste water around Koperkhairne area.

II. MATERIAL AND METHODS

For study purpose six sites around Koperkhairne industrial zone were selected. Water samples were collected monthly from selected sites during Jan 2021 to June 2021. Following sites were selected for study purpose. Table No.1- Sampling Sites. Samples were collected in clean glass bottles. The bottles were rinsed with the groundwater to be taken for analysis. Collected samples were analyzed using EDTA method for Total Hardness. The EDTA method was used to measure the concentration of Calcium and Magnesium ions in water samples to determine their total hardness. This method is based on the principle that EDTA and its sodium salt forms a soluble complex when added in the solution of certain cations. $M^{2+} + EDTA \rightarrow M-EDTA \text{ Complex}$ A small amount of Eriochrome Black-T indicator is added to an aqueous solution containing calcium and magnesium ions at pH -10.0. As a result, calcium and magnesium ions get complex and the solution becomes wine red. Since EDTA has strong affinity towards calcium and magnesium ions, on



the addition of sufficient amount of the reagent, a new complex of blue colour is formed at the end of titration. 50 ml sample was taken in conical flask. If sample was having higher calcium, a smaller volume was taken and diluted to 50 ml. 1 ml of buffer solution was added if the sample was having higher amount of heavy metals than 1 ml of Na₂S solution was added 100-200 mg of Eriochrome black-T indicator was added, the solution turned wine red. The contents were titrated against EDTA solution. At the endpoint, the colour changed from wine red to blue.

Calculation Total Hardness as CaCO₃, mg/l. = mlof EDTA used x 1000 mlof sample

III. RESULTS AND DISCUSSION

The amount of hardness equivalent to sum total of carbonate and bicarbonate alkalinity is called as bio-carbonate hardness and the amount exceeding this, is called as bio-carbonate hardness (Sawyer and McCarty, 1987). The amount of hardness due to carbonate and bicarbonate is called as temporary hardness and the hardness due to sulphate and chloride is called as permanent hardness. According to Durfor and Beaker (1964), water with total hardness below 60 mg/lit.expressed as calcium carbonate are soft, between 61 to 120 mg/lit. , moderatehard, between 121 to 180 mg/lit hard and more than 181mg/lit are very hard. The concentration of total hardness atsampling stations in industrial water samples S1, S2& S4 are soft,sampling station S3 are moderate hard and the sampling stations at S5 & S6 are very hard (Table -1) due to continuous discharge of industrial effluent at koparkhairne. Total average hardness of industrial water sample at sampling station are soft in the month of April &May ,and hard in the month of March, January , February and June.

Table -1: Level of Total Hardness (mg/lit) in industrial Water Sample

Stations	Jan	Feb	Mar	Apr	May	Jun
1	94	72	81	84	75	110
2	110	103	94	85	67	77
3	141	142	160	95	85	114
4	120	104	120	98	74	172
5	240	136	280	144	150	230
6	184	114	196	96	68	300

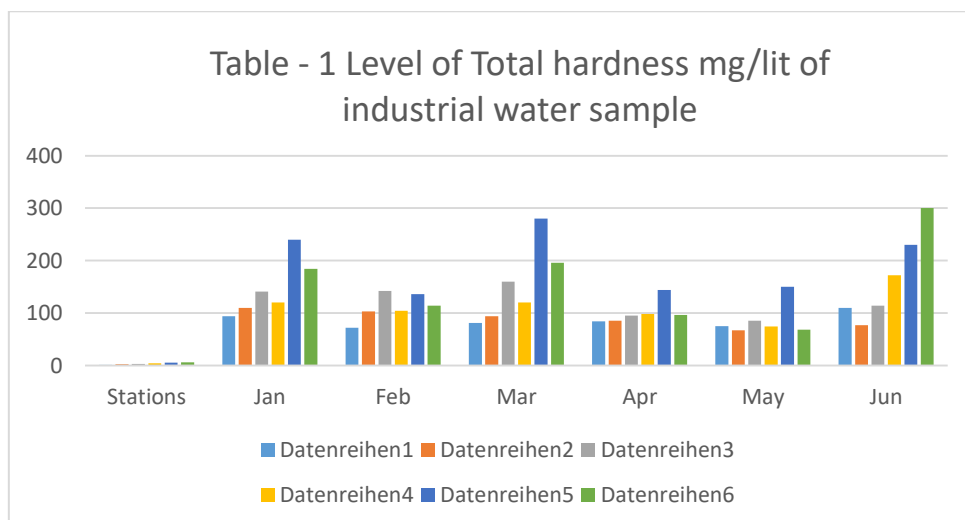
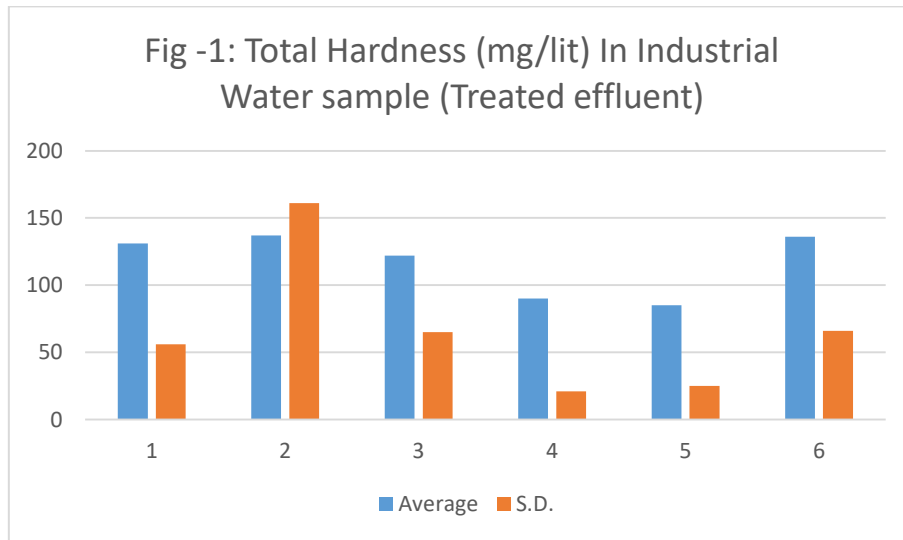




Fig. 1: Total Hardness (mg/lit) in Industrial Water Sample (Treated Effluent)

Average	131	137	122	90	85	136
S.D.	56	161	65	21	25	66



Station	Summer	Rainy	Winter
1	164.09	150.87	116.50
2	148.16	120.82	212.47
3	240.16	171.80	345.41
4	418.50	204.44	537.87
5	552.86	165.71	554.26
6	335.36	188.70	278.55

Average	22.3	158.19	245.00
S.D.	140.07	25.74	156.89

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STUDY OF CHLORIDE PRESENT IN THE POND WATER SAMPLE OF SANPADA, NAVI MUMBAI

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ABSTRACT:

The Pond water samples were collected from, Sanpada, Navi Mumbai and analysed every month throughout the year. So, we have studied levels of chloride in pond water sample from Sanpada, Navi Mumbai. Average concentration of Chloride 21.52 mg/lit in June to average concentration of chloride 30.16 mg/lit in November.

Key words: Pond water sample, Pollutants, chlorides.

INTRODUCTION:

Water pollution is the biggest problem in the World. Due to tremendous increase in the growth of population, Industrialization and urbanisation we are facing the problems of water pollution. Due to interference of human's activities in pond like washing clothes, washing animals, cars etc. adversely affected on pond water and water is polluted. To minimise the concentration of chlorides in pond water samples we selected pond water sample for study purpose. In the present study, the level of chloride were studied in the pond water sample of sanpada, Navi Mumbai. The pond water samples were collected from different six sites for the study purpose. Pond water sample collected in the glass bottles by following standard procedure. Samples were taken from sanpada, Navi Mumbai 1.Vashi lake 2. Nmmc fountain 3. Palm Beach lake 4.chinchpokali Talav 4.Sarsola pond 5.Nerul lake 6. Seawood lake. The samples were collected every month for six months and analysed in laboratory for the levels of chlorides.

EXPERIMENTAL METHODOLOGY:

For determination of chloride Chloride concentration in the water is determined by several methods viz argenometric or Mohr's method. Mercuric method and potentiometric method. In the present study, argentometric method was considered suitable for the determination of chloride ions. In neutral or alkaline solution, potassium chromate indicates the end point of titration of chloride AgNO_3 reacts with chloride ions to form very slightly soluble white ppt precipitate of silver chloride. After all the chloride is removed, the indicator changes its colour to reddish brown of silver chromate. $\text{Ag}^+ + \text{Cl}^- \rightarrow \text{AgCl}$ (white ppt) $2\text{Ag}^+ + \text{CrO}_4^{2-} \rightarrow \text{Ag}_2\text{CrO}_4$ (Reddish brown PPT) Reagents a) Standard silver nitrate solution – (0.02N). Dissolve

3.4 g of dried AgNO₃ (A.R.) in distilled water to make 1 litre of solution in an amber coloured bottle and kept in dark, away from light.

For the present study pond Water sample from six stations for every month (30ml) was taken in a conical flask and 2ml K₂Cr₂O₇ was added to it. The solution was titrated against 0.02 N AgNO₃. End point was taken when persistent red ring appeared, concentration of chloride (Cl⁻) ions was determined using the following formula. Chloride mg/lit = $N \times \text{ml of AgNO}_3 \times 35.5 \times 1000 \text{ ml of sample used}$ Where, N= Normality of AgNO₃

RESULTS AND DISCUSSION:

In pond water sample concentration of chlorides ranged from minimum 14.20 mg/lit in November (Station - 1, Vashi lake) to maximum 80.20. mg/lit in November (station -4 , Sarsola Pond) (Table No - 1). Average concentration of Chloride 21.52 mg/lit in June to average concentration of chloride 30.16 mg/lit in November.

We studied the Season wise concentration of chlorides minimum 15.54 mg/lit in summer season , 23.73 mg/lit in Rainy season and 14.70 mg/lit in winter season and maximum in summer season 122.35 mg/lit, in Rainy season 38.90 mg/lit and 90.70 mg/lit in Winter season (Table No : 2 , Stations 1,2,1 (Vashi lake, Nmmc fountain, Vashi lake.) and Stations 6, 4, 6) (Seawood lake, Srsola Pond , Seawood lake.). Higher values of chloride observed in summer season in the present study. Thus, high chloride level, polluting surface waters i.e. Originates from an industrial effluent. Human's activities etc.

Table -1: Level of Chlorides (mg/lit) in Pond Water Sample

Stations	June	July	August	September	October	November
1	15.60	26.95	26.70	16.34	17.21	14.20
2	15.62	19.85	26.75	15.20	16.21	24.15
3	20.30	21.30	45.44	21.34	20.30	34.08
4	61.50	45.44	28.40	20.35	22.34	80.20
5	20.70	28.41	30.42	30.32	32.31	70.10
6	40.80	29.81	30.85	29.51	31.50	31.24

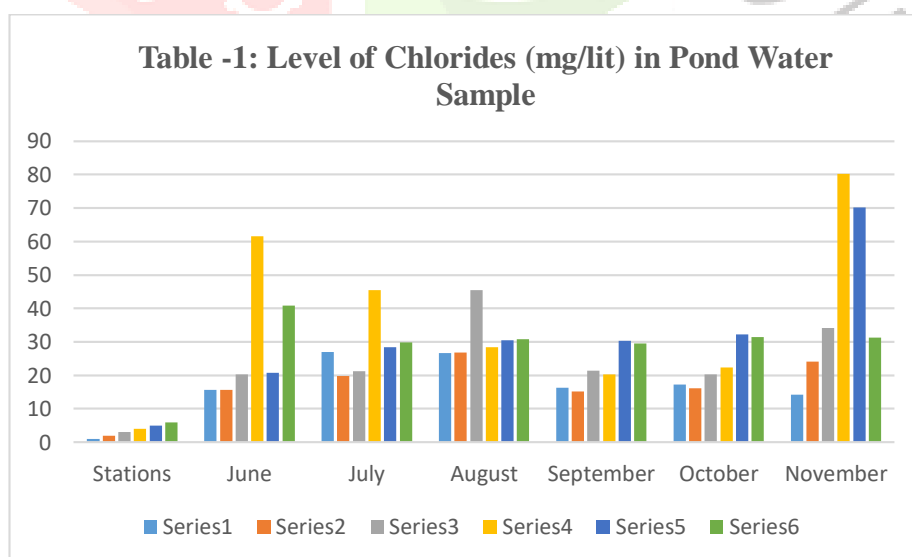


Fig. 1: Chloride (mg/lit) in Pond Water Sample

Average	21.52	28.27	27.81	24.08	25.83	30.16
S.D.	14.91	9.61	6.43	4.97	5.54	22.10

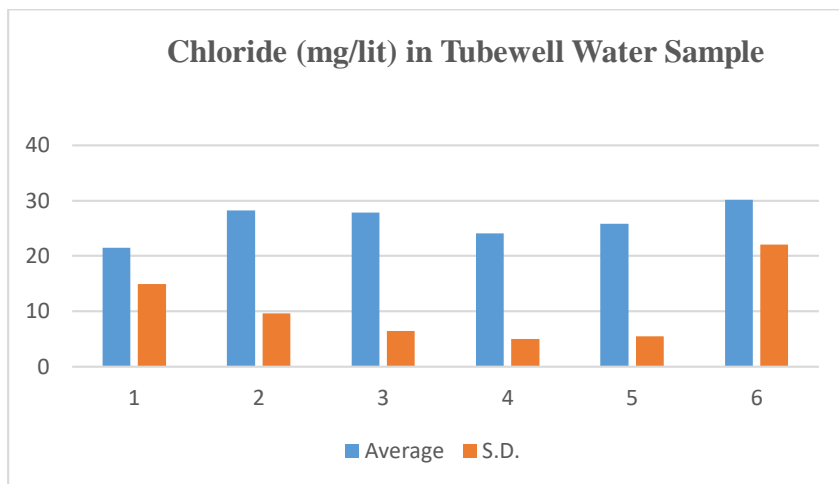
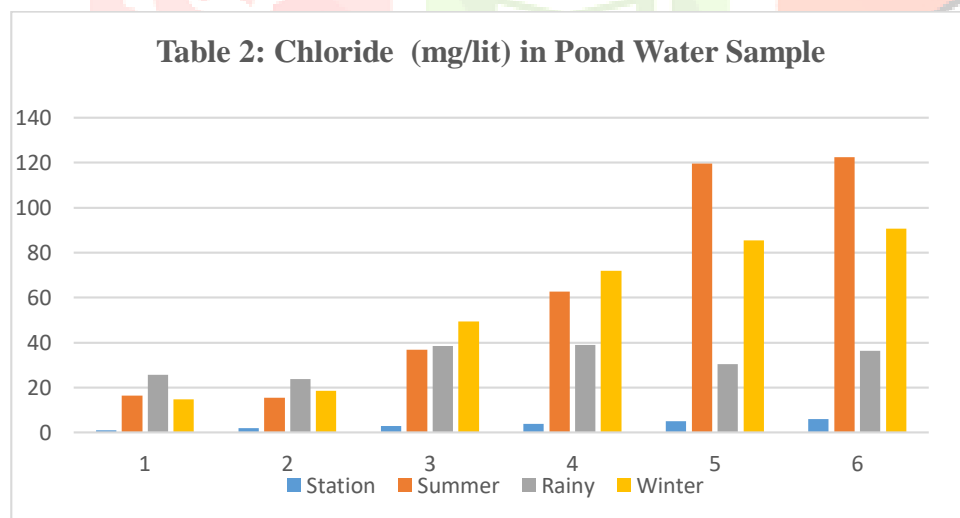


Table 2: Chloride (mg/lit) in Pond Water Sample

Station	Summer	Rainy	Winter
1	16.50	25.63	14.70
2	15.54	23.73	18.71
3	36.80	38.45	49.37
4	62.71	38.90	72.06
5	119.65	30.45	85.54
6	122.35	36.40	90.70



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STUDY OF TOTAL HARDNESS IN WATER AROUND AMBARNATH AREA.

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Abstract: Ambarnath area from Thane district of Maharashtra having 3 industrial zone. For the study purpose five ground water samples were selected. Groundwater samples collected from selected sites monthly from July 2013 to December 2013 and analyzed for Total Hardness parameter.

Total Hardness in study area was found between 150 to 218 to mg/l. Total Hardness at all sampling Stations were found below permissible limit of BIS. At sampling station S2, S3 and S4 (Vimko Naka Bore Well, Morivali naka bore well and Ladi naka respectively) Total Hardness were found more than acceptable limit by BIS i.e. above 200 mg/l during some month, indicates seasonal changes and nature of the geological properties of the area with which water have been in contact.

Keyword: Total Hardness, Industrial zone, Geological, permissible limit, BIS.

Introduction:

Population on earth has been increasing in alarming rate, which demands safe drinking water. Groundwater is a major source of water all over the world. The physical and chemical properties of groundwater make it a reliable source throughout the world. Groundwater plays variety of roles in day-to-day life, which makes it an important resource for human beings.

Groundwater is generally invisible but very important in day-to-days life. 300 million Europeans acquire their daily drinking water from groundwater resources. Lakes, rivers and coastal waters in Europe are linked with groundwater; therefore, its quality depends to some extent. [1]

Pollution of groundwater is the natural, physical and chemical change due to human activity, so that water is no longer fit for use; for which it had previously been suited. Groundwater pollution problem now a day has become a severe threat to public health. [2]

Industries play a very important role in the economy of our country. With rapid industrialization, pressure on available resources also increases. Man is not only using natural resources, but he is also discharging the different types of solid, liquid waste material into the same resources, which day-by-day degrading the quality of this vital resources.

Hardness is one of the properties of water, which prevents the lather formation with soap and increases the boiling point of water. Calcium and magnesium cations mainly cause hardness. [3]

Ambarnath area is industrially developed town having number of industries; therefore, study had undertaken to find out the Total Hardness level in groundwater around Ambarnath industrial area. This area is surrounded by huge residential & slum area around it.

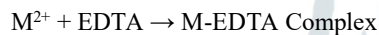
Material and Methods: For study purpose seven sites around Ambarnath industrial zone were selected. Water samples were collected monthly from selected sites during July 2013 to December 2013. Following sites were selected for study purpose.

Table No.1- Sampling Sites

Sr.No.	Sampling Area	Station No.
01	Forest Naka Bore Well	S1
02	Vimko Naka Bore Well	S2
03	Morivali Naka Bore Well (Buwapada area)	S3
04	Ladi Naka Hand pump (New bhendipada area)	S4
05	Morivali Gaon Open Well	S5

Samples were collected in clean glass bottles. The bottles were rinsed with the groundwater to be taken for analysis. Collected samples were analyzed using EDTA method for Total Hardness.

The EDTA method was used to measure the concentration of Calcium and Magnesium ions in water samples to determine their total hardness. This method is based on the principle that EDTA and its sodium salt forms a soluble complex when added in the solution of certain cations.



A small amount of Eriochrome Black-T indicator is added to an aqueous solution containing calcium and magnesium ions at pH -10.0. As a result, calcium and magnesium ions get complex and the solution becomes wine red. Since EDTA has strong affinity towards calcium and magnesium ions, on the addition of sufficient amount of the reagent, a new complex of blue color is formed at the end of titration.

50 ml sample was taken in conical flask. If sample was having higher calcium, a smaller volume was taken and diluted to 50 ml. 1 ml of buffer solution was added if the sample was having higher amount of heavy metals than 1 ml of Na₂S solution was added 100-200 mg of Eriochrome black-T indicator was added, the solution turned wine red. The contents were titrated against EDTA solution. At the endpoint, the color changed from wine red to blue. [3]

Calculation

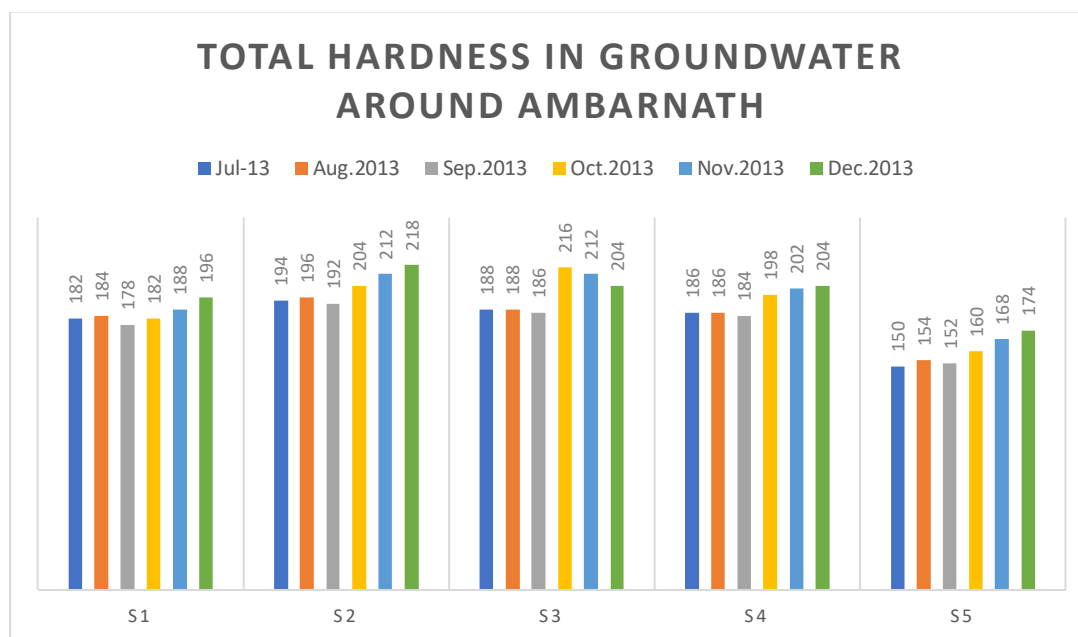
$$\text{Total Hardness as CaCO}_3, \text{ mg/l.} = \frac{\text{ml of EDTA used} \times 1000}{\text{ml of sample}}$$

Obtained results from different sites compared with the standards (Table No.3) given by BIS [4] for Total Hardness parameter.

Results and Discussion: After analysis obtained results were shown in table no.2.

Table.No.2-Obtained results of Total Hardness (mg/l) during July 2013 to December 2013

Sampling Site	July13	Aug.13	Sept.13	Oct.13	Nov.13	Dec.13
S1	182	184	178	182	188	196
S2	194	196	192	204	212	218
S3	188	188	186	216	212	204
S4	186	186	184	198	202	204
S5	150	154	152	160	168	174



Graphical presentation – of obtained results of Total Hardness (mg/l) from sampling sites from Jan.2013 to June 2013.

Table No.3- Water standard for Total Hardness

Parameter	CPCB	BIS(IS 10500 : 2012)		WHO
		Acceptable limit	Permissible limit	
TH(mg/l)	-	200	600	-

Total Hardness varied from 218 to 150 mg/l during study period. Standards for Total Hardness has not been set by CPCB and WHO. Total Hardness at all sampling Stations were found below permissible limit of BIS i.e.600 mg/l (IS 10500: 2012).

At sampling station S2, S3 and S4(Vimko Naka Bore Well, Morivali naka bore well and Ladi naka respectively) Total Hardness were found more than acceptable limit by BIS i.e. above 200 mg/l. Hardness is the result of geological formations of the water sources [5]. The Hardness of water varies from place to place and it reflects the nature of the geological properties of the area, with which water have been in contact.

Highest Total Hardness recorded at Sampling station S2 (Morivali naka bore well) during December 2013 i.e.218mg/l.

Lowest Total Hardness recorded at sampling station S5 (Morivali Gaon Open Well) i.e. 150 mg/l.in the month of July 2013. In general, surface waters are softer than ground waters although, this is not always the case [6,7] .Hardness in some condition may be beneficial; it prevents the corrosion in the pipes by forming a thin layer of scale and reduces the entry of heavy metals [8,9]

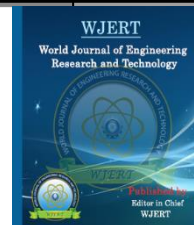
Conclusion:

Total Hardness at all sampling Stations were found below permissible limit of BIS i.e.600 mg/l. At three sampling sites S2,S3 and S4(Vimko Naka Bore Well, Morivali naka bore well and Ladi naka respectively) Total Hardness were found above acceptable limit i.e.200mg/l.which is an indication of geological properties of the area in which water have been in contact. The high concentration of Total Hardness in water Samples may be due to dissolution of polyvalent metallic ions from sedimentary rocks, seepage and run off from the soil. [10]

Lowest Total Hardness observed at sampling station S5 (Morivali Gaon Open Well) in the month of July 2013 and Highest Total Hardness recorded at Sampling station S2 (Vimko Naka Bore Well) in the month of December 2013. Hardness in water has no known adverse effects; still such water is not fit for domestic use. A hardness of more than about 200 mg/l causes scale deposits in the piping system. [11] [12]

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GROUNDWATER QUALITY ANALYSIS OF ASNOLI VILLAGE OF AMBARNATH, MAHARASHTRA, INDIA

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ABSTRACT

Asnoli village of Ambarnath area was selected for study purpose. The groundwater quality of Asnoli village was studied from March 2012 to June 2012. Groundwater samples were collected from 4 sampling sites during the study period and analyzed for different physicochemical parameters like Temperature, pH, Electrical Conductivity, Total Hardness, Turbidity, and Chloride. Obtained results were compared with WHO and BIS standards. Except for turbidity, all parameters were found within the permissible limits given by BIS and WHO.

Turbidity in groundwater samples indicates contamination of water by outside sources.

KEYWORD: Contamination, Groundwater, Physicochemical, Permissible limits.

INTRODUCTION

All over the world groundwater plays a very important role in the day-to-day life of man. People are using groundwater for several purposes. Its physical and chemical properties make it a reliable source throughout the world. Groundwater plays a variety of roles in day today's life, which makes it an important resource for human beings.

The water-use pattern varies widely in different parts of the world. It is dominantly used for irrigation in Asia, Africa, and South America. In Europe and North America, it is principally used to meet domestic demands. Over half of the world's population relies on groundwater

for drinking water supplies. It is also an important supplemental source for irrigation. In India, nearly 92% of the annual withdrawal is for irrigation. (Das,2011)

Groundwater contamination results from a sequence of anthropogenic and natural activities and processes involving a contaminant source, its mobilization through the soil (transport action), and its ultimate fate (sinks). Sources of contamination include human activities performed primarily on the surface that releases toxic substances into the environment (Rogers *et.al.*, 2007).

Asnoli Group Grampanchayat is a group of rural settlements under the Ambarnath block of Thane district in the state of Maharashtra. This village is 15 km. away from Badlapur railway station of central railway. This Group Grampanchayat is consists of a group of five settlements namely: Asnoli, Pimploli, Yeve, Pimploli Vadi, and Barvi dam colony, having a population of about 3000 according to a census of 2011, as reported by Gramsevak and Sarpanch of the village. (Chavan *et.al.*2011; Nirbhavane, 2016)

Groundwater is an important source of water supply in a rural area; as it is used for different purposes in day-to-day life. (Chavan *et.al.*2011) Therefore an attempt has been made to find out the groundwater quality of Asnoli village.

Maintenance of open well is a serious concern in today's time as in village-like Asnoli, where people are getting drinking water from other sources, in such cases, an important source of groundwater i.e., open well is completely ignored by villagers & not maintained on regular basis, which further facing continuous pollution problem, and not gets detected immediately.

METHODOLOGY

4 groundwater samples were collected from selected areas of Asnoli Group Grampanchayat from November 2011 to February 2012.

Table 1: Sampling Sites.

Sampling Site	Station No.
Pimploli Wadi Open well	S1
Yewa Open well	S2
Pimploli village Open Well	S3
Pimploli Bore Well	S4

Samples were collected in 2 lit. the capacity of clean polythene bottles. The bottles were rinsed with the groundwater to be taken for analysis. Tightly sealed after collection and labeled in the field area. Collected samples were analyzed for the following parameters Temperature, pH, Electrical Conductivity, Total Hardness, Turbidity, and Chloride.

The temperatures, pH of the water samples were determined on the spot using a Thermometer and Portable pH meter respectively. Conductivity measured by Conductivity meter. Total hardness was measured by EDTA titrimetric method using the EBT indicator. Turbidity measured by Turbidometer. Chloride contents by Argentometric method using potassium chromate as an indicator (APHA,2005; Trivedi, 1986).

The quality of groundwater has been assessed by comparing each parameter with the standard desirable limits prescribed by BIS and WHO.

RESULTS AND DISCUSSION

After analysis obtained results are shown in table no.2 and further it was compared with the BIS and WHO standards from table no.3.

Table 2: Mean value of a parameter for the summer season (March 2012- June 2012).

Station No.	Temp. ($^{\circ}$ C)	pH	E.C. (μ S/cm)	Total Hardness (mg/l)	Turbidity (NTU)	Chloride (mg/l)
S1	29	6.5	208.4	234	10.4	712.3
S2	29	6.3	196.2	226	8.8	656.8
S3	28	6.6	208.6	218	10.8	718.2
S4	29	6.7	114.6	208	8	364.4

Table 3: Drinking water standards.

Sr. No.	Parameters	BIS (IS 10500-91)		WHO
		Desirable Limit	Max. permissible Limits in the absence of alternate source	
1	Temperature ($^{\circ}$ C)	-	-	-
2	pH	6.5 to 8.5	No relaxation	6.5 – 8.5
3	Electrical Conductivity (μ S/cm)	-	300	-
4	Total hardness as CaCO ₃ (mg/l)	200	600	500
5	Turbidity(NTU)	-	5	5
6	Chloride in (mg/l)	250	1000	250

Temperature-Temperature ranges from 28 $^{\circ}$ C to 29 $^{\circ}$ C during the study period. The highest temperature was observed at the station no.S1, S2 & S4, and the lowest temperature was

found at S3. The temperature of the water changes seasonally with air temperature. (Carr,2006).

pH- pH ranges from 6.3 to 6.7 during the study period. All the samples were found within the desirable limit given by BIS and WHO. At station no.S4 highest pH was observed and at the station no.S2 lowest pH was observed. All the samples were found within the desirable limit given by BIS and WHO. In general, the lower the value of pH, the higher is the level of corrosion. An increase in the amount of organic carbon, total carbonate by the use of sewage leads to a decrease in pH level. It is positively correlated with Electrical Conductance and Total Alkalinity. (Gupta,2009)

Conductance-Conductance was ranged from 114.6 to 208.6 $\mu\text{S}/\text{cm}$. The highest conductance was observed at the station no. S3 and lowest conductance was observed at the station no. S4. The major reason for the difference in Electrical Conductivity is anthropogenic activities prevailing in this region and the lithological composition of the area. It was observed that Electrical Conductivity values increase in some samples with the increasing amount of Sulphate, Chloride, Bicarbonate, and Hardness as CaCO_3 (Ramesh *et.al.*,2012). All samples were found within the permissible limits given by BIS.

Total Hardness- Total hardness ranges from 218 to234 mg/l during the study period. At station no. S1, the highest hardness observed in the study period. S1 was found above the desirable limit given by BIS,i.e.200mg/l, but all the samples were found within the permissible limit given by BIS and WHO i.e.600 and 500 respectively. The Hardness of water varies from place to place and it reflects the nature of the geological properties of the area, with which water has been in contact. Total Hardness includes both temporary and permanent hardness caused by the Calcium and Magnesium, based on which water is categorized as soft or hard and very hard. (Sengupta, 2013; Ramya *et.al.*, 2015).

Turbidity- Turbidity in the study area ranges from 8 to 10.8 NTU. All samples were found above the permissible limit given by BIS and WHO i.e.,5 NTU. Open wells are, open in the atmosphere, so having more chances of contamination. Borewell shows less turbidity compared to open well, as it gets less affected by outside disturbances.

The highest turbidity was observed at station no. S3 Open well water shows more turbidity compared to bore well water. The Turbidity has a negative impact on the user's acceptability

of water as cloudiness is visible in the water. It is not a health risk but it is a sign of the possible occurrence of contaminants. When such water is not treated appropriately before use, it has a health concern. (Who,2011).

Chloride- Chloride in the study area ranges from 364.4to 718.2 mg/l., highest chloride was observed at station no.S3. Chloride is found in the groundwater due to minerals like apatite, mica, hornblende, and also from the liquid inclusions of igneous rocks. (Das *et.al.*,1988; Prakash *et.al.*,2006) All the samples were found above the desirable limit given by BIS and WHO i.e. 200 mg/l, but all samples were found within the permissible limit given by BIS i.e.1000 mg/l.

CONCLUSION

All groundwater samples collected from Asnoli village were found within the permissible limit given by BIS and WHO for the different parameters, except the turbidity. Turbidity was found above the permissible limit given by BIS and WHO. All the 04 open wells were not maintained by local people for many days, as nowadays they are not dependent on groundwater for drinking purposes.

The probable reason behind turbidity of water is lack of maintenance around open well, which causes mixing of soil and silt/dust particles in open-well areas. Turbidity is an indication of contamination of groundwater up to a certain extent. Other parameters were found within the permissible limit, therefore well water possible to use for different purposes except drinking. Use of alum to remove turbidity is necessary as well as before use filtration is also necessary while using this water for any purpose.

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Study of Chloride in Water around Ambarnath Town, Maharashtra, India

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Abstract

Ambarnath town is part of Thane district of Maharashtra. For study purpose six ground water samples around Ambarnath Chikloli-Morivali industrial area were collected during July 2013 to December 2013. Collected Samples were analysed throughout 6 months for Chloride parameter. Obtained results compared with the standards given by WHO & BIS.

Chloride in study area was found between 96.56 mg/l to 129.22 mg/l. In whole study period, Bhimnagar area open well always shown higher value of chloride compared to other sites indicates effect of manmade activities.

Keywords: Chloride, Industrial area, manmade activity, parameter, groundwater

Introduction

Groundwater resources support many town, rural and distant communities around Australia. It is used as a drinking water source; for irrigation in agriculture, industrial development and indirectly, through ecosystem and stream flow maintenance. About 32% of groundwater is extracted for urban industrial use, 51% for irrigation and 17% for stock watering and rural use but this varies by state.[1]

It has been estimated that India, Nepal, Bangladesh, Pakistan and China use over 300 billion m³ of ground water annually, which is mostly in agriculture. India is the largest user of ground water. Presently about 65 % of the irrigation and about 90 % of the domestic and industrial water requirements are met through private ground water resources. Use of ground water is becoming unsustainable day-by-day. The fall in ground water level and deterioration in quality gives rise to drinking water shortages.[2]

About 50% of all the underground water used in urban areas of developing countries is obtained from wells, springs and bore holes and more than 1000 million populations in Asia and 150 million in Latin America depend on such resources.[3]

Population on earth has been increasing in alarming rate, which demands safe drinking water. Groundwater is a major source of water all over the world. The physical and chemical properties of groundwater make it a reliable source throughout the world. Groundwater plays variety of roles in day-to-day life, which makes it an important resource for human beings.

Water quality depends on the natural physical and chemical status of the water as well as any alterations that may have occurred as a consequence of human activities. Anthropogenic activities cause

serious groundwater contamination; therefore, it is important to analyse the ground water as well as water quality in different parts of the India, before using it for any purpose.[4]

Day by day population around the town is increases, so it’s important to detect the quality of groundwater, therefore Ambarnath town was selected for study purpose.Ambarnath is an industrially developed town from Thane district of Maharashtra. Around industrial area, residential and slum areas are present, therefore an attempt is made to find out the chloride present in the groundwater.

Material and method

For study purpose six sites around main Ambarnath town were selected. Water samples were collected monthly from selected sites during July 2013 to Dec.2013. Following sites were selected for study purpose.

Table 1- Sampling sites with station no.

Sr.No.	Sampling area	Station no.
1	Kansai Gaon (Ganesh chauk) Open Well	S1
2	Kansai Hand Pump	S2
3	Bhimmnagar Area,Open Well	S3
4	Vadavli area (Service centre) Bore Well	S4
5	Bhendipada area Bore Well	S5
6	Samarth Service Centre Bore Well	S6

Samples were collected in clean glass bottles. The bottles were rinsed with the groundwater to be taken for analysis. Collected samples were analysed for Chloride parameter by using Argentometric method. Chloride ions can be conveniently estimated by titration with silver nitrate in the presence of chromate ions. Silver nitrate forms silver chloride by reacting with the ions present in water. When the chloride in water gets exhausted, silver nitrate then reacts with the CrO₄ - to show a red colour of silver chromate indicating that the titration has been completed.

In 50 ml of sample 2 ml of Potassium Chromate Solution was added. The contents were titrated against 0.02 N AgNO₃ until a persistent red tinge appeared.[5]

Obtained results from different sites compared with the standards given by CPCB for Chloride.

Calculation

$$\text{Chloride (mg/l.)} = \frac{(\text{ml} \times \text{N}) \text{ of AgNo}_3 \times 35.5}{\text{ml of sample}}$$

Results and Discussion

After analysis obtained results were shown in table no.2.

Table No. 2: Obtained results from July2013 to December 2013

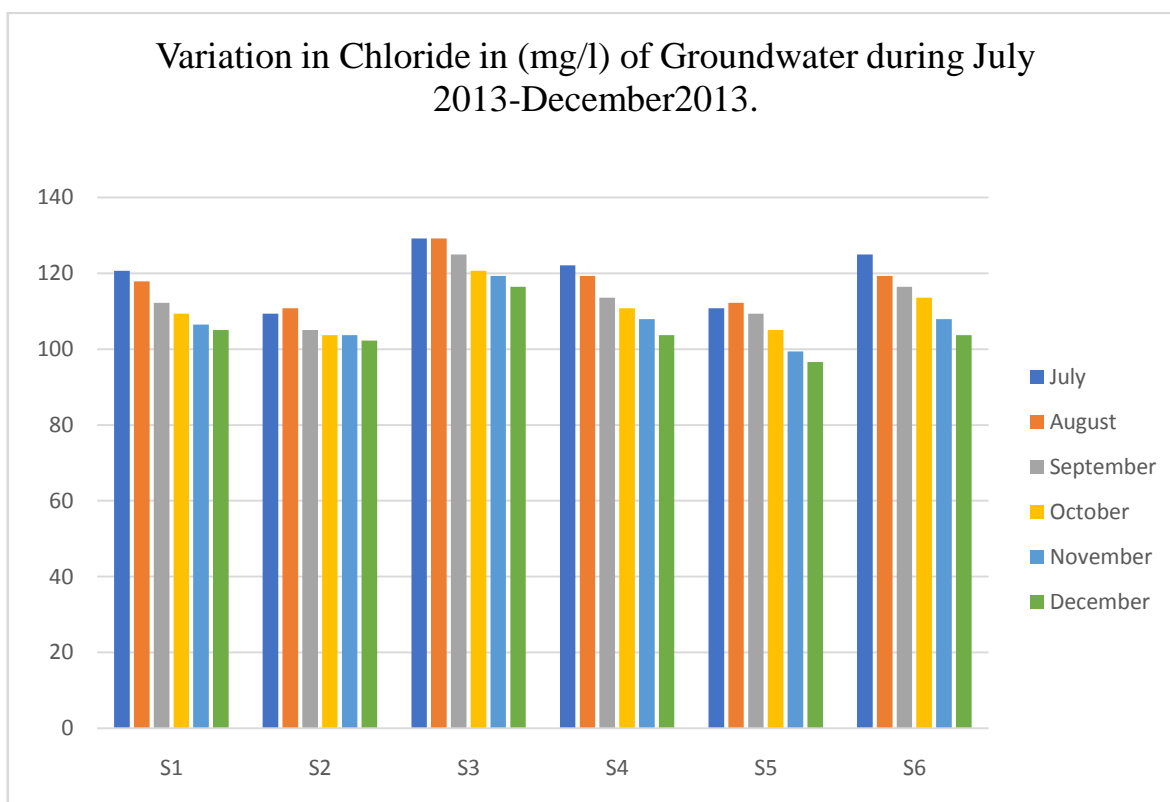
Station No.	July	August	September	October	November	December
S1	120.7	117.86	112.18	109.34	106.5	105.08

S2	109.34	110.76	105.08	103.66	103.66	102.24
S3	129.22	129.22	124.96	120.7	119.28	116.44
S4	122.12	119.28	113.6	110.76	107.92	103.66
S5	110.76	112.18	109.34	105.08	99.4	96.56
S6	124.96	119.28	116.44	113.6	107.92	103.66

Chloride in Ambarnath ground water varied from 96.56mg/l to 129.22 mg/l. All six sampling sites were found within desirable limits given by BIS and WHO i.e. 250 and 200-300 (Taste Threshold value) respectively; indicates less contamination.

Chloride in surface and ground water coming from both natural and anthropogenic sources such as the use of inorganic fertilizers, septic tank effluents, industrial effluents, animal feed, and landfill. Chloride levels in unpolluted waters are often found below 10 mg/l. [6,7].

At station no.5 (S5-Bhendipada area Bore Well) (Kansai Hand Pump) in the month of December 2013 shown lowest chloride values and station No.S3 shows highest value of chloride in the July and August 2013.



Conclusion

At all six sampling sites, chloride value observed within desirable limits given by BIS and WHO indicates less effect of anthropogenic activities on groundwater. During study period Station No.S3 i.e. Bhimnagar area open well shown more chloride level compared to other sites. Bhimnagar area open well, has some sources of contamination compared to other sites. As station no.S3 is open well, from one side well is surrounded by slum area where local people are throwing garbage in nearby well area

and from another side it's having railway track; having more chances of contamination from surrounding area compared to bore well and hand pump.

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