A Comparative Study of Environmental Awareness in Rural and Urban Pupil-Teachers through Social sites and Traditional Methods

A Thesis

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By

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Under the supervision of

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Certificate

I feel great pleasure in certifying that the thesis entitled "A **Comparative study of Environmental awareness in rural & urban pupil teachers through social sites and traditional methods**" by **Anju Gupta** under my guidance. She has completed the following requirement as per Ph.D. regulation of the University.

1. Course work as per the university rule.
2. Residential requirement of the university (200 days).
3. Regularly submitted annual progress report.
4. Presented her work in the departmental committee.
5. Published two research papers in a referred research journal.

I recommend the submission of thesis.

Dr. Harpal Singh

Date: Research Supervisor

Abstract

Earth is the only planet on which life is found and it has limited natural resources. There is need to use these resources in sustainable way. If at this time we don't give attention to environmental problems then one day our upcoming generation's future will go in darkness. Environment has been shown dangerous picture of future. Now it's need of hour that everyone should aware of environmental problems.

Urban and rural women pupil teachers are teachers of future generation. So they should be aware of environmental aspects only then they can make aware future generation aware about environmental problems and their solutions. Social sites can play effective role for it. Researcher explored the effect of Socio economic status (low and high SES), background (urban & rural) & treatment methods (Social Sites and Traditional) on environmental awareness of pupil-teachers. Researcher provided environmental information to pupil-teachers through social-sites (Face book).

Researcher has been included following chapter in thesis-

First Chapter (Introduction): In first chapter introduction of problem, justification of problem, statement of the problem, objectives of Research, hypothesis, sampling methods, the terminology used in research and outline of research have been included.

Second Chapter (Review of literature): In second chapter researcher has been included study of related literatures.

Third chapter (Design of Research): In this chapter method used in research, tools and statistics have been used.

Fourth Chapter (Data Collection, Interpretation and analysis): In the chapter data collection interpretation and analysis have been described.

Fifth chapter: In this chapter researcher has been included major findings, suggestions, education implication and summary of the research have been incorporated.

Bibliography and appendix have been included at the end.

Study revealed that social sites are more effective medium than traditional classroom teaching to developing environmental awareness than traditional methods in High & low SES ,rural & urban pupil-teachers. Researcher concluded that social sites can create effective role in teaching learning process that encourage students to be critical thinker, communicator and problem solver of environment. As a result better environmental awareness developed in pupil-teachers through social sites.

Candidate's Declaration

I hereby certify that the work which is being presented in the thesis entitled "**A COMPARATIVE STUDY OF ENVIRONMENTAL AWARENESS IN RURAL & URBAN PUPIL TEACHERS THROUGH SOCIAL SITES AND TRADITIONAL METHODS"** in partial fulfillment of the requirement for the award of the Degree of Doctor of philosophy carried under the supervision of **Dr. Harpal Singh** and submitted to the university of Kota, Kota represents my ideas in my own words and where others ideas or words have been included ,I have adequately cited and referenced the original sources .The work presented in this thesis as not been submitted elsewhere for the award of any other degree of diploma from any institutions. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/ data /fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the university and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Date: **Anju Gupta**

This is to certify that the above statement made by **Anju Gupta** (Registration no. RS/1203/13, Enrolment no 2012/000177) is correct to the best of my knowledge.

Date: **Dr. Harpal Singh**

Research Supervisor

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Abbreviations

SS	Social Sites
TM	Traditional Method
SES	Social Economic status
EAAM	Environment awareness ability measure
EA	Environment awareness
R	Rural
U	Urban
HSES	High social Economic status
LSES	Low Social economic status

CHAPTER 1

INTRODUCTION

1.1 Concept of Environment:

The environment is formed by Light, moisture, wind, temperature, soil, organisms, pollutants, insecticides, pesticides Radio-isotopes and men which surrounds us. Environment includes small microorganism to every cell of living being. .Environment is made of living and non living things. Non living thing like light, moisture, temperature, wind etc. makes physical environment and living things makes biotic environment. Environment is complex of many factors which interact not only with the organism but among themselves.

Environment of earth can be divided into four subdivisions- Atmosphere, Lithosphere, Hydrosphere and Biosphere. This is shown in figure 1. They interact with each other.

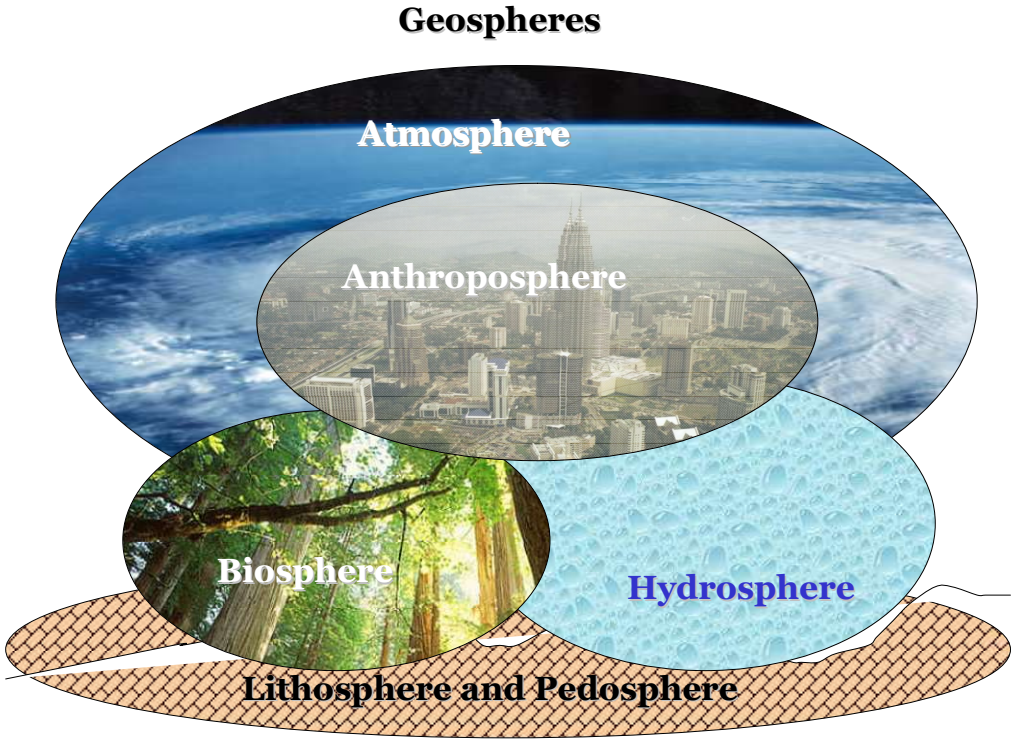

Figure 1.1 Spheres of Environment

The atmosphere is gaseous mantle around the lithosphere and hydrosphere and biosphere. It constitutes gases such as nitrogen, oxygen, argon, carbon dioxide, helium, neon xenon, ozone and krypton in definite conditions. In addition to this, atmosphere also includes water vapors, dust particles, industrial gases, pollen and several other substances that cause environmental degradation. The lithosphere is mainly made up of solid components and constitutes the rocky substances. Hydrosphere includes the liquid water, river water, ocean and ponds. Biosphere includes plants, animals and all other organism.

1.2 Changing patterns of Environment:

All the things that surround us and affect us directly and indirectly is called environment, Environment can be divided into two parts:

- Natural Environment
- Man made Environment

In Normal Environment we include biotic element and A biotic element. Biotic elements include Plant Kingdom; Micro kingdom, and Animal kingdom, A biotic elements include lithosphere, atmosphere, and hydrosphere.

In manmade environment we include religious environment, spiritual environment, philosophical environment, political environment. Environment and man are related to each other. Man cannot live without environment. Even we cannot imagine mankind existence without environment.

Before 19^{th} century man had very much precious relationship with environment. Trees were related with religion Tulsi, Peepal, Banyan, and Banana trees were worshiped by every mankind. It was said that god lives in trees. People used to encourage tree plantation relating it with religion. Chipko movement was based on the saving trees. In this movement thousands of people sacrifice their life for saving the trees.

Rivers were also worshiped in form of god. It was say that our all sins will washed away after taking bath in Ganga. But today it is polluted in this extend that

nobody can drink its water. Yamuna River is also polluted due to plastic industries in Delhi.

After 19th century man third eye of greed opened and he started degrading the environment. Scientific and technological revolution has resulted drastic change in the environment leading to environmental degradation and crisis. The speed and nature (particularly man induced change) in recent years have brought about a series of environmental problems of global magnitude including population explosion, reduction of energy resources and utilization, the provision of food supplies, exploitation of raw materials, global warming, acid rain, ozone layer depletion, air pollution due to increase in number of automobiles industries.

Agriculture fields are being changed in commercial land like houses, factory, and industries. Mountains and plains are being polluted due to deforestation because of this so many precious wildlife species are getting extinct. As a result ecological balance is disturbing in the environment. . Main reasons for above problem are followings-

(i)Air pollution-Source of air pollution are burning of fossil fuels in large quantities from jet aircraft, increasing numbers of vehicles, deforestation and industries.

According to report of world health organization air pollution in 2012 caused the death of around 7 million people worldwide. India has 14 out of 15 most polluted cities in the world in term of P M (particulate matter) 2.5 concentration. Kanpur is the most polluted city.

(ii)Water pollution-Water bodies like river, lake, oceans, aquifer and groundwater are contaminated with wide range of toxic and pathogens, water becomes polluted. This water may cause threat to human health. The largest source of water pollution in India is untreated sewage, agriculture runoff and unregulated small scale industries. Leakage of petroleum from huge ships and oil tankers into the sea, causes oil slicks which spread rapidly over water and spell disaster to marine life and to human depending on marine resources. More than 500 million people live along the Ganga

River. An estimated 2,000,000 persons ritually bath daily in the river which is considered holy by Hindus .Ganga river pollution is major health risk.
National Ganga program, an integrated mission, was approved as flagship program by government in June 2016 with a budget outlay of Rs 20,000crore to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of Ganga. Under the project, 8 states are covered(Wikipedia).

(iii)Land degradation –When the characteristics and quality of soil gets change which adversely affect its fertility is called land degradation .As a result of land degradation vegetation cover become less, changes in climatic conditions occur. Main cause of degradation is deforestation, modern agriculture practices. Overgrazing, industrialization dumping of solid waste from urban centers and waste materials from mining centers, Saline encrustation of irrigated lands is another example of land degradation.

Prevent the land from degradation; some steps can be taken like crop rotation, formation of ridge and furrow, construction of dams, strip farming contour farming.

(iv) Depletion of resources –Resource depletion is the consumption of resource at faster than it can replenish. Natural resources are two types' renewable resources and non-renewable resources. The main causes of depletion of natural resources are overconsumption, Deforestation and destruction of ecosystem leading to loss of biodiversity, mining of minerals and oil, technological and industrial development, erosion and population growth in the recent past has resulted in rapid depletion of all kinds of resources. Forest and soil resources are getting depleted at a fast rate owing to population pressure. Tropical forests are depleting at a rate of 2% per annum. It is estimated that the world is losing 7% of top soil per decade. Depletion of resources is most significant in respect of non renewable mineral and power resources.

(V)Ozone depletion – Ozone is colorless gas which found in stratosphere. It protect us from harmful ultraviolet rays from Sun .From 1970's scientists, environmentalist

and world at large noticed the depletion of ozone layer. The main reason for depletion of ozone layer is the production and emission of CFC (chlorofluorocarbon).Other substances are HFC (hydro chloro fluro carbon) and volatile organic compounds. Such substances are released by vehicular emission, by product of industrial process, aerosols and refrigerants.

As result of depletion of ozone layer U V rays enters into atmosphere which develops skin cancer, eye cataract, damage of immune system, aging of skin. In 1987 Montreal protocol was formed to save ozone layer. It helped in reducing and controlling industrial emission of CFC.16 September is declared as ozone day. Our individual effort is essential in saving the earth's blanket and keeps our earth liveable for us and future generations.

(vi) Acid Rain - Burning of coal, oil and petroleum adds sulphur dioxide to the atmosphere. Lead, carbon monoxide and nitrogen dioxide are added to the atmosphere from automobile exhaust. These gases result in acid rain which affects aquatic life, example acid rain in industrial regions of Europe and North America.

(vii) Global Warming – Global warming a gradual increase in the average temperature of Earth surface and its oceans. Scientific consensus on climate change that average 0.4 &0.8 degree c of the Earth has risen over the last hundred years .Primary sources of global warming are burning of fossil fuels , land clearing , agriculture and other human activities that increased the volume of CO_2 and other green house gases occurred over the past 50 years. scientist from (IPCC) Intergovernmental Panel On Climate change have recently predicted that average global temperature could increase between 1.4 & 5.8 degree c by the year 2100.Changes resulting from global warming may include rising sea levels due to melting of polar ice caps, increase in occurrence and severity of storms.

(viii) Radioactive pollution – Radioactive pollution can be defined as the release of radioactive substances or high-energy particles into the air, water, or earth as a result

of human activity, either by accident or by design. The sources of such waste include:

- Nuclear weapon testing
- The nuclear fuel cycle, including the mining, separation, and production of nuclear materials for use in nuclear power plants or nuclear bombs
- Accidental release of radioactive material from nuclear power plants.

1.3 Analysis of man and his environment with special Reference to India:

In India it is true that the pollution in environment is more than any other country and it is spreading at an enormous speed and there is increase in the elements and factors which affect in spreading the pollution. In India the forests are getting finished. The sea shores are getting poisonous; the water had become polluted and poisonous by the wastes of industries, metropolitan cities and agricultural based products. It is very difficult to breath even in the cities. Dirty waters are been supplied through taps. In Punjab's few parts DDT had polluted even the mother's natural milk if been checked by the health department. Nuclear energy centers from where radioactive atoms, molecules and ions are caused to be leaked out continuously which is been overlooked by the nation in the name of development.

Unfortunately, all this is happening because of few selfish and self-interested peoples. some powerful countries and multinational companies in which America, Britain, Germany are main who are spreading poisons in the life of India by dumping poisonous wastes in the Indian Shores, lakes, rivers and in the soil with the political and industrial support. Lead which can destroy the brains comes in tons to the Indian coasts every year.

In the same line greedy businessmen are importing lakhs of tons of dangerous PVC (plastic wastes) from developed countries. In India most affected by this poisonous material are women and the children. , older and sick people. Earlier neither the national government nor the state government have taken any extensive steps to control but today time governments are also becoming aware to take action towards environmental protection.

Now it is urgent need to take step for solution of environmental problems before it is too late, but question is this how we can save our environment? It is not only government responsibility but also we should also involve in environmental protection practices. It can be possible through making the people environmentally aware .Environmental awareness can be developed by environmental education Today is time to call for public awareness and participation for bringing about an attitudinal change and finally restricting further damage to the environment. Effective implementation of environmental management and conservation programs depends on education, awareness raising and training in the relevant areas. Without an understanding of how to conserve natural resources and the compelling need to do so people wouldn't be motivated in programs on environmental conservation, Environment education and awareness thus assume critical importance.

Environmental education and environmental awareness look alike but there is a waste difference.

1.4 Environmental Education:

Education is an important social instrument and mean, which act as a catalyst in improvement of different aspects of life, knowledge, awareness, skill, values, attitude acquired through education help one to lead a desired quality of life. In order to protect and conserve the environment emphasis has been given to environmental education.

It refers to organized efforts to teach about how natural environments function and, particularly, how human beings can manage their behavior and ecosystems in order to sustainable. It should consider the environment in its totality and should be a continuous life long process beginning at preschool level and continuing through all stages. However, it is sometimes used more broadly to include all efforts to educate the public and other audiences, including print materials, websites, media campaigns, etc. related disciplines include outdoor education and experiential education.

Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978). Classification of environmental education at different levels is shown in figure 2.

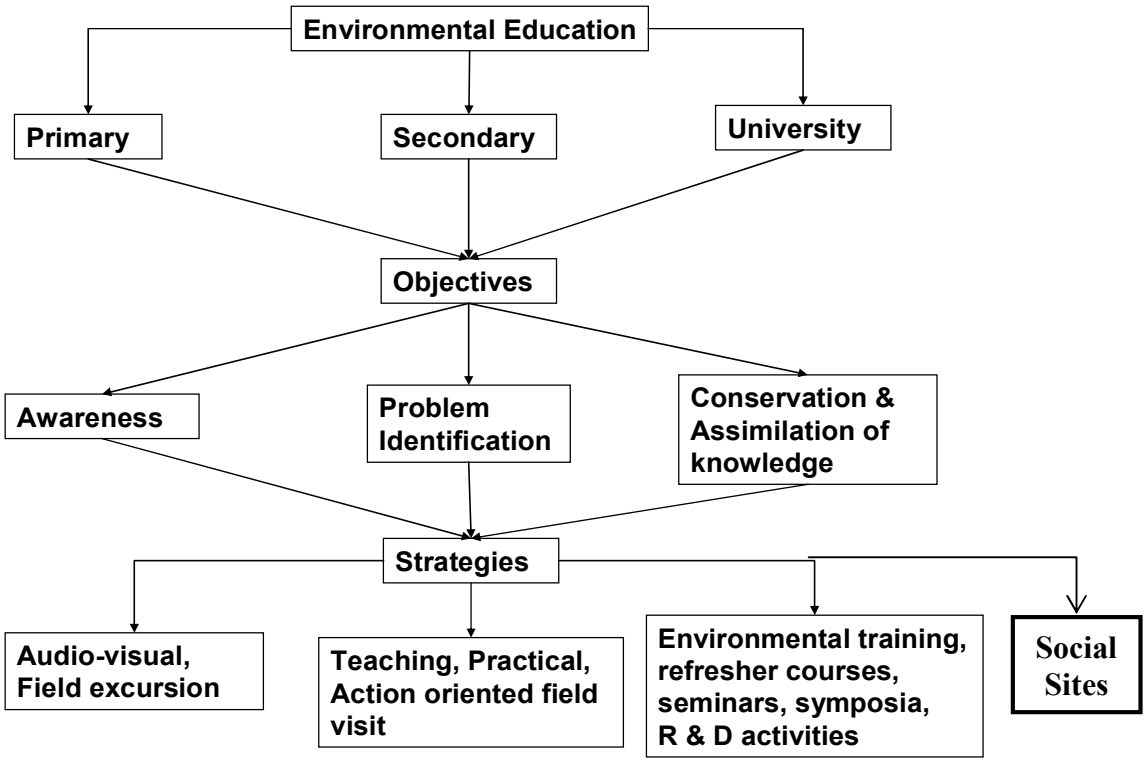

Figure 1.2 Classification of Environment Education at different levels

Environmental education is now being seen as an instrument and a process that Education should be based on two-way communication rather than the old paradigm of a one-way flow of information, from teachers to pupils. The content and substance of environmental education is also undergoing review and change. Reorienting education as a whole towards sustainability involves the various levels of formal, non-formal and informal education at all levels of society.

Environmental education has developed within the conceptual framework that emerged from the first international conference in Tbilisi (1977) and is now seen As education for sustainability. This allowed environmental education to address the broad range of issues and concerns included in *Agenda 21* and others which evolved through the meetings of the Commission on Sustainable Development (UNESCO 1997).

- **Need of Environmental education**

The need for environmental education arises from the fact that environmental hazards created by the rapid pace of development in the world have gone up to alarming levels, thereby making it difficult for the authorities to handle it on their own. To face such a situation, it is important that awareness be created at all levels of community and amongst all levels of users. To handle a global problem of such proportions, a handful of officials and professionals are just not enough. Instead, there is a need to address the problem at grassroots level. The sources from which such problems arise have to be approached and given the required amount of knowledge, which clearly explains the need for environmental education.

Moving on, the need for environmental education is especially critical in small children who are just beginning to gain awareness of their surroundings and nature. In fact, experts suggest that such learning should even start before the school begins. The need for environmental education in children can be gauged from the fact that such early learning helps in shaping the children's values, perspectives and understanding of the environment. It also helps in teaching the children about different ways to interact with their environment.

In today's age when computers, video games and school work dominate a child's routine; it is important every child be given an opportunity to learn about and interact with his surroundings, which exactly explains why the need for environmental education is so critical. Regular interactions of children with their environment have proven to improve the children's sense of wonder, imagination and creativity, apart from providing them with as sense of beauty, calmness and intellectual development.

In wake of such a critical importance for the need for environmental education especially in small children, experts advise starting early with kids at home. Parents can simply achieve such objectives by talking to their kids about nature and explaining small things about their environment which they might encounter in the routine life. Pupil- teachers should be aware of all aspects of environment then they can use it to educate children about environment.

- **Importance of Environmental Education:**

Environmental education is important to raise the curiosity about atmosphere and environment. To achieve this aim on 5th June the whole world celebrates the world environment day.

Environmental education is important as following ways –

- Earth is the only plant where life is possible in the solar system. To protect it from destroying and to save it and to provide healthy and happy life to live.
- To convert the carbon dioxide into the oxygen in the atmosphere is possible by trees, plants and vegetation only. Oxygen is the air which provides us life. To reduce the Carbon dioxide and to maintain the level of oxygen in the atmosphere, it is necessary to educate the people by telling them ”what to do and what not to do”
- The stability of whole nature has been disturbed due to every year’s excessive population growth. To control the stability of environment, it is necessary to control the excessive growth of population so that we give the future generation a systematic environment.
- Industrial revolution and scientific discoveries have provided luxury appliances which have spread different type of pollution. To control and protect the environment from this pollution a programmer is to be started.

These all are possible by environmental education, so the environmental; education is necessary for the time.

1.5 Environmental awareness:

Each of us has a role to play in rehabilitating our environment. Let us not forget that the environment is nothing but an extension of the individual. We belong to the earth; the earth does not belong to us. Land, air and water are complex interrelated systems. Even if one is affected, the effects are reflected on the others, and their constituents. Therefore, proper resource utilization, and conservation and maintenance of the ecological balance are the need of the hour.

The meaning of environmental awareness is-

- To understand the natural resources and its importance to help the community.
- Physical environment, vegetation, wild animals and human's interrelationships is to be developed and understood for dependence.
- To start the activities collectively or personally to develop the social culture and economical values.
- To know the human materials, places, time and resources under environment.
- To know the methods and dimension's of an environmental resources and its effective usages to develop and increase the social, economical and cultural values.

➢ Need of environmental awareness

Today environment awareness is need of hour by considering the following points-

- All the major resources in the country are in grave danger of irreparable damage
- A society can't survive if its natural resources are rendered unfit for use by its people.
- Environmental problems like air pollution water pollution, radioactive pollution, and land degradation are increasing with time.
- Global warming, Ozone depletion, acid rain are other problem of need to think.

- To develop awareness among children, student and in society about environment.

Therefore it is essential requirement of environmental awareness.

- **Methods of Environmental awareness –**

Environmental awareness is an important task. In view of Indian population, cultural and geographical circumstances, it is an extensive work. Its methods are of the following types-

- **By folk drama and tradition** –Folk drama and tradition, folk songs etc are the few medium to educate about environment.
- **By Scout guide, NCC cadets**-Plantation, cleaning of waters reservoirs, and lakes, cleanliness of land are the program to be organized by scout guide and NCC cadets to improvise the awareness among the people.
- **By Exhibitions and competitions** –By organizing the plantation programs, the knowledge of environment related energy, on tradition sources, exhibitions, competitions etc.
- **By communication means**- Public awareness about environment is now a days done by the means of communications like –radio, television, science and general knowledge books, magazine.
- **By government and non government organization** – The environmental programs can be organized for public awareness by government and nongovernmental organizations, Environmental departments, science & technology department, local agencies. To arrange or organize the plantation program time to time.
- **By meetings** – By arranging meetings time to time with rural representative, teachers, students and local industrialist.
- **Social sites-** Social sites can be good source of environmental education.

1.6Social sites:

Social network is a broad term used to show the blogs, user created videos. A social networking is an online service, platform or site that focuses on creating and reflecting of social relations among people who share interest's n activities. social networking involve organization together or grouping among people .many social networking sites are being used in developing environmental awareness but the opportunities that social networking sites provide for developing environmental awareness are yet to fully utilized. They can be used to promote good environmental practice, share idea of best practice, raise awareness about environmental campaigns and in other unforeseen ways. Many social networking sites are being used in higher education for developing environmental awareness . According to survey of Centre on environment and media ,Assessment of using social media to raise environmental awareness,2014 found positive relationship between social sites and richness of energy & environment These networking sites are being used by professionals, activists ,conservationists etc.to link with business, employees ,organizations or to share personal views.

The effectiveness of social media in sustaining the interest of environmental awareness issues are needed to review for better understanding of the pupil-teacher's behaviour towards the environment.

1.6.1 Social media tools and social sites for learning

Social media technologies have different type of applications that promote learning. Many of these services are free. These applications encourages collobration, develops informal or formal learning, and provides a way to share ideas. These are Audacity (podcasts), elgg (social networking platform),edublogcampus(blogs), Gotomeeting(interacting webinars and live presentation), collobrationtool (collaborative resources), mind mister(mind maps),talk shoe(talk shows),voice thread(multimedia presentation).Some of the most popular social networking sites is being used in higher education include, Facebook, twitter, linkedin, myspace,you tube.

Facebook

A social networking service where users create personal profiles, add other users as friends and exchange messages, including automatic notifications when they update their own profile. Additionally, users may join common-interest user groups.

Twitter

A micro blogging service enabling its users to send and read publicly visible messages called tweets. Tweets are text-based posts of up to 140 characters displayed on the user's profile page. Users may subscribe to other users' tweets.

LinkedIn

A business-related social networking site mainly used for professional networking. Users maintain a list of contact details of people with whom they have some level of relationship, called connections. This list of connections can then be used to build up a contact network, follow different companies and find jobs, people and business opportunities.

MySpace

IT is an online community of users' personal profiles. These typically include photographs, information about personal interests and blogs. Users send one another messages and socialize within the MySpace community.

YouTube

A video-sharing website on which users can upload, share, and view videos. A wide variety of user-generated video content is displayed, including film , TV clips and video blogging. Media corporations including the BBC also offer some of their material via the site .Most videos enables users to leave and exchange comments.

1.6.2 Educational implication of social media in education:

Social sites are very vast medium to engage and participate students on a global level. Social sites can create effective role in teaching learning process that encourage students to be critical thinker, communicator and problem solver in collaborative environment. Social sites are helpful in education in many ways.

Social engagement and experience

Social sites are useful to strengthened students interaction with teachers and peers. They got high quality learning material. Their engagement in studies enhances and overall student experience developed. Socialization also provides opportunity for emotional engagement.

Social sites are active source of learning

Social media is very effective medium to students for engaging them in learning activities like peer instruction, case based learning and problem solving activities.

Social learning

According to Bandura's theory "people learn from one other via observation, imitation and modeling". so social sites can be good source for this type of learning.

Student can use time outside of class in better way

Student can get good knowledge of environment by reading environmental articles and news on social sites. They can discuss about it in classroom among students and teachers.

Reach more students and encourage discussions

Social sites can reach to most of students. Students those are shy in nature, they can also show their views about any discussions. Interaction between students develops with each other.

It helps student to decide their professional carrier

At social sites students can meet different experts of their profession. It helps them to decide their carrier.

Develop contacts

Social sites are useful for meetings of students from other college students, professionals, educators. It helps in developing connections and communications with new colleges that was never possible without social networking sites. As we all know that Facebook are being used in every corner (urban &rural areas) of the country, so environmental problems can be solved by utilizing these sites in proper way.

Facebook is most preferred and famous among students, teachers and general people. After Review of literature researcher found it is very important site for developing environmental awareness so facebook is taken by researcher as prospective of research.

1.7 Facebook as a social media:

Environmental issues are matter of concern of worldwide groups. Environmental awareness has become utmost important for all countries and major organizations. They are working on it international level.The environmental damage already inflicted due to alarming rate on-going population explosion, rapid movement towards urbanization and industrialization, increasing needs of energy and fast scientific and technological advancement cannot be reversed that should be addressed now with the sustainable solutions.

The environmental knowledge can be good solution to solve environmental problems .Environmental knowledge and environmental awareness have positive correlation Environmental awareness can be developed through environmental knowledge. Media specially social media can contribute very important role in developing environmental awareness.

In present time different kinds of technologies has come .World is becoming technical .People are communicating with each other by easiest and cheapest media i.e. social networking sites .It provides opportunity to engage people to do conversation about environmental problems. In today's globalization the development& uptake of digital tools and social software bringing about massive societal and economic change in form of information. We are having a extremely large number of social media tools that are facebook, youtube, twitter, Google plus, instagram blogs, forums have the potential to reach every corner of the world.

Facebook is very useful medium to developing environmental awareness. At present facebook is the second most trafficked social media site on the world. It was first founded by Mark Zuckerberg in 2004. It is interactive site allowing visitors to leave comment, message on the blogs. Its interactivity distinguishes it from other

social sites. It connects people together and generates the web itself. It gives opportunity to users to select their own privacy setting and choose who can see specific part of their profile. It provide facility to make community and receive fast, quick respond to feed back

Facebook is a social networking site that is being used by people of all ages. Originally it was designed for college students.Facebook users can create their profile and upload pictures, videos and information. Friends can see the profile of other friend and sent message on their pages.

Facebbok profile has a wall. This wall is viewable to all user's friend. So this wall is not for personal message. If a friend wants to send personal message to other friend then he can send it on friend's private inbox. Facebook allows every user to set private settings. Another person's those are not in your friend list cannot view your profile.

In facebook limited profile option is also available that allow you to hide certain part of your profile from list of users you select. Facebook contain different types of applications like super poke and fun wall. Other applications are informational such as news fed and weather forecasts. 100 different types of games are available on facebook. Facebook is easy way to keep in touch with friends and upload video and pictures.

1.7.1 Facebook as a method of instructional tool:

Researcher was already aware about facebook operation. She created a page named "**Environment Awareness by Anju Gupta**" on his facebook profile. He instructed to join the students of B.Ed. colleges (Experimental Group). Researcher put his efforts to join her page to maximum students of experimental group. Later students of B.Ed. colleges joined and get information related to environment. Researcher posted the information related to environment awareness for 2 months on her facebook page. The matter was similar to the given in classroom.

Researcher posted the various materials like videos, texts, and photograph on facebook page on the topic of environmental awareness. Many example are available

in literature that facebook is being used as instructional tool. It is becoming useful for reading, online discussion and student of class get benefit of their peer's who generally don't participate in class discussion and to cover topics which is not possible to complete in classroom teaching respect to lack of time.

1.7.2 Environment awareness and facebook methods of instruction:

Facebook can be used as a medium to get students engage in easy environmental practices. It can be used to uploading photos of environmental activities, share interesting stories on environmental campaigns, sharing photos of people doing environmental activities and in sharing environmental posters . Facebook have gone beyond personal use and it has open good opportunities for people and organization to provide all kind of information. Facebook has become important for creating awareness of environmental conservation. Environmental problems have worsened the environmental condition of the world that can be addressed now with sustainable solutions. Promotion of idea of sustainable development has become a goal of not only government and NGO but it also reflected in activities of social campaigns on social sites (face book) . This kind of activity has helped to raise awareness on environmental issues and engage broad audience in environmental campaigns. Facebook has reached every corner of life and it can fully utilized for good environmental practices, share ideas of environmental conservation n raise awareness about environment.

Facebook can be used of tree plantation. In May 2018, Uttrakhand government made page on facebook to "Mission Rispana" its main aim is to motivate people for plantation. Plants were given to children of every school in uttrakhand. Children uploaded their selfie with plantation. Government planned to take report of planted tree: like this the environment issues are being discussed on facebook.

India was global host of 2018 "World environment day with theme "beat plastic pollution". Its main aim is to remove plastic till 2022. Different groups on

facebook those are concern about environment are providing alternative ways to combat plastic pollution.

Many groups are activating on facebook to aware general people about environment. Some as follows

- **Environmental working group**: Its charity in Washington; it's main mission is to empower to live healthy lives in a healthy environment .It provides practical information that we can use to protect our family and community.
- **Indigenous Environment network**: Charity in Bemidji, Minnesota IEN's activities include to protect our sacred sites, land, water, air , natural resources, health of both of people and all living things and to build economically sustainable communities.
- **Environmental Activities**: This is a volunteer group which helps and provides cleaning up the coast at beach, Rubbish into creativity , planting mangroves and snorkeling.

Pages on Facebook

- **Environment Science Techniques** (For environmental scientist and specialist). It being information and updated from the world of environmental science.
- **Environmental update**: It provides environment updates. Its mission is green Mumbai is an initiative to plant 1 crore trees in Mumbai.
- **Environmentalist foundation of India**: Environmental conservation organization in Chennai. It volunteers towards preserving and restoring natural ecosystem for love, health and happiness of all life form. They collaborate with a global network of likeminded volunteers to cultivate environmental consciousness and desire to give back to mother earth.

Some pictures that are shared by environmental groups on facebook are follows:

Figure 1.3. Global warming (figure source: Facebook)

Figure 1.4: waste material eaten by birds(figure source: Facebook)

Figure 1.5: Air pollution (figure source: Facebook)

1.8 Significance of study:

- It provide platform to discussion of best method to save environment that can be use in classroom.
- It is alternative method to traditional lecture method.
- It increases the teacher-content, teacher-student and student-student interaction.
- Facebook provide greater number of learning styles which benefit both the teacher and students. Pupil –teachers can benefit by this.
- A campaign can be started to encourage students for environmental activities like plantation, use of alternative products at place of plastic and so on.
- It is useful to test the effectiveness of online teaching.

- Teacher's preparation can be enhanced by Facebook and they can use it in future class.

1.9Variable Factors affecting Environmental awareness:

Environmental awareness is depending on so many independent variables. Researcher has taken some independent variable in research independent variables those are affecting environmental awareness as following:

- **Socio economic status**

Determinants of social position are a matter of social change. It varies with time, region, culture and paying capacity of people. Technological expansion, education, impact of electronic media, print media, and social sites are important parameters of socio-economic status. Today world is technical, so most of student cannot know the world without social sites like face book, twitter, Instagram, Linkden etc. This is era of globalization, liberalization and privatization. Today modernity is regarded more important than money. So, social status of person cannot be measured not only with financial and occupational status of person but also it depends on level of education ,modern life styles , health status ,kind of gadgets, facilities and services that person is enjoying.

Pupil-teachers are belongs to variable backgrounds high and low socio economic status pupil-teachers are studying in different B.Ed. colleges. They are linked with environment with childhood .But question arises, are technologies helpful to developing environmental awareness? At which level socio economic status linked with Environmental awareness.

Some years before mobile phone was luxurious item of high status families. Now it has become necessity of layman. In recent years emerging awareness through electronic and print media has developed a new social pattern in india. Now caste is not considered as important factors in determining status of individual as once it was considered. Socio economic status can be considered important factors for environmental awareness

- **Background (Rural and urban)**
  - **Environmental awareness of urban areas**:

Urbanization, the term denotes removal of the rural character of a town or areas; a process associated with the development of civilization. Demographically, the term denotes redistribution of populations from rural to urban settlements.

In urban areas mostly natural ecosystem has been changed in manmade ecosystem. Industrial and economic growth, science and technological development population explosion are main factors in urban areas. People are far from natural environment.

Due to urbanization a large area has been converted to cities in which houses are made of bricks or stones and factories are constructed. Due to these constructions the soft layer of the whole land area has becomes hard. All plants and trees are been removed. The whole agricultural land becomes residential area. Because of the hard soil the water flow and underground water resources are affected by the following ways-

- The underground water resources reduce due to the reduction in the motion of underground water.
- Due to the hard urban land the rain water flow gets increased

Following are the effects of urbanization on environment –

- Lack of agricultural land- Many cities has developed on agricultural land and it is continuously expanding, which has been done at the cost of agricultural land.
- Deforestation- Forests are been cleared for expansion of cities. Firstly to acquire land and secondly there is an increase in use of wooden and because of this the possibility of flood occur in the nearby rivers.
- Excessive increment in pollution- The total responsibility of pollution is on urbanization. Air pollution, water pollution and sound pollution is maximum in cities.
- Pollution by wastage- In cities industrial waste is thrown in water bodies as a result water gets polluted.

- ❖ In urban area people have tendency to use and throw. This is affecting environment at large scale.
- ❖ The increase in industrial houses and transport vehicles which pollutes the environment is maximum in cities.

In cities the natural places are not at all seen and total environment become unhealthy and different diseases are caused. Conservation of environment in urban areas also depends on social economic status. .In most of cases low social economic people are more environmental friendly than high social economic people, If they are being educated towards environment than they can protect environment in better way. Facebook can be proved very effective medium for it.

- **Environmental awareness of rural areas**

Rural areas are large and isolated areas of country, often with low population density. About 91% of rural population now earns salaries often in urban areas. Rural areas people mostly depend upon agriculture, rural people are more closely linked with nature.

Biomass sources such as firewood, dung cakes remain the principal cooking fuels in rural areas. Bio-gas use is main sources of fuel. In rural areas wastes are generated is mostly biodegradable in nature for eg. Soil waste, cattle waste, domestic waste, agriculture waste.

But at present conservation of environment in rural areas also depend upon socio economic status. socio economic status depends on salary, health, using of electronic media, education and entertainment medium used by people. Low socio economic status rural people are linked with nature but high socio economic status rural people are being attracted towards urban areas. People of rural areas also wants to make their life comfortable .More comfortable life means to using the natural resources in larger quantities. As a result depletion of natural resources occur. Rural people should be educated about different environment techniques they should get knowledge of it that they can get enormous benefits from nature without harming it. If the rural people are aware about different agriculture techniques, use of biogas, using renewable resources at large scale like solar energy, wind energy, waste

management techniques ,plantation and so on. .As a result they will not move from rural to urban areas. Social media can play a crucial role for it. It can become cheap and easily available source for rural people.

- **Treatment methods:**
  - Traditional methods (class room teaching)
  - Social sites

1.10 Statement of the problem:

"A Comparative Study of Environmental Awareness in rural & urban Pupil – Teachers through Social Sites and Traditional methods".

1.11 Justification of research:

If any research is investigated justify the problem of research is essential to prove the importance, significance and nature of problem. It is important to find out the use of research in education field.

Earth is the only planet on which life is found and it has limited natural resources. There is need to use these resources in sustainable way. If at this time we don't give attention to environmental problems then one day our upcoming generation's future will go in darkness. Environment has been shown dangerous picture of future. Now it's need of hour that everyone should aware of environmental problems.

So, the environment protection and preservation has been an urgent need of hour. This can only be possible if we have a right type of attitude towards such issues and proper awareness to related matters. It is widely accepted that the development of such awareness and attitude can be possible through environment education.

Education is an important social instrument and mean, which act as a catalyst in improvement of different aspects of life, knowledge, awareness, skill, values and attitude acquired through education help once to lead a desired quality of life. In order to protect and conserve emphasis has been given to environmental education in both formal and non formal system of education.

In formal education, teaching of environmental education depends not only on curriculum and other facilities provided to student but also quality of teachers in terms of knowledge, awareness, attitude and skills relating to environment among students. Urban and rural pupil teachers are teachers of future generation. So they should be aware of environmental aspects only then they can make future generation aware about environmental problems and their solutions .If teacher is technically aware then he can give its benefits to students also.

Today's society is technical. A student cannot know the world without internet. Social sites are becoming integral part of their life .Most of students are using social sites for chating, video talking, news and for sharing pictures. According to Bozkurt Aras(2017)The social sites provides opportunity for communication and interaction especially for distance education students who are separated from teachers, learning resources and other students in terms of time and space. Educators in higher education have begun exploring alternative means of instruction including social communication tools designed for easy use, instructional freedom and constant online discussions (Brady, Holcombs Smith 2010). The uses of social networks have increased exponentially in recent years although there is some controversy over the imbedded nature of social media in education setting (Chang Yu &LU 2015).

As review of literature most accessible social site is face book and it is becoming important mean to develop knowledge and awareness about environment. Many environmental awareness groups are on social sites specially, facebook that is directly or indirectly aware people about environment by pictures, videos and text .Most of students and teachers are using facebook .Facebook may become effective tool for developing environmental awareness in pupil-teachers. After considering outlook of today's society and increasing environment problems, interest developed in researcher's mind to do research on this topic.

Although several studies have been done on use of a social networking sites (facebook) as instructional tool for many subjects and environmental awareness. Most of the research studies have undertaken in western countries on developing environmental awareness through social sites (facebook) .but in India only few

studies have taken for it .Studies related to environmental awareness is limited. Especially in Rajasthan and Uttrakhand No studies have been undertaken on basis of socioeconomic status and background of pupil- teachers to developing environmental awareness through social sites.

Some questions are coming in researcher's mind, which are as follows-

- Are the rural pupil- teachers aware of environmental problems?
- Are the urban pupil teachers aware of environmental problems?
- What is the attitude of rural pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of urban pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of low socio economic status pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of high socio economic status regarding environmental awareness through social sites?
- What is the attitude of low socio economic status urban pupil-teachers regarding environmental awareness through social s
- What is the attitude of high socio economic status urban pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of high socio economic status rural pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of low socio economic status rural pupil-teachers regarding environmental awareness through social sites

To know the answers of these question researcher has taken this problem for study. This study is very new related to developing environmental awareness in pupil-teachers through social networking sites.

This study is necessary to explore most effective path way for developing knowledge, attitude and behavior towards environment in pupil-teachers and it can be useful to test social networking sites for developing environmental awareness.

1.12 Main Objectives of the research work:

The proposed study shall be completed to achieve the following objectives:

1. To study the post environmental awareness in pupil-teachers taught through social sites and traditional methods.
2. To study the post environmental awareness in high and low socio economic status pupil-teachers taught through social sites and traditional methods
3. To study the post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
4. To study the post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
5. To study the post environmental awareness in high and low socio economic status rural pupil-teachers taught through social sites and traditional methods.
6. To study the post environmental awareness in high and low socio economic status urban pupil-teachers taught through social sites and traditional methods.
7. To study the comparison of pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods
8. To study the comparison of pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. To study the comparison of pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
10. To study the comparison of pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods

11. To study the comparison of pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.

1.13Hypothesis:

The hypothesis is precisely defined as tentative or working proposition suggested as a solution to a problem and the theory as final hypothesis which is defensibly supported by all evidences. The final hypothesis which fits all the evidences becomes the chief conclusion inferred from the study (Hilway, 1964)

Taking into account the objectives of the proposed study the following hypotheses have been formulated.

(a) Main Hypothesis:

1. There is no significant difference of environmental awareness of pupil-teachers taught through social sites and traditional methods.
2. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status pupil -teachers taught through social sites and Traditional Methods (TM).
3. There is no significant difference of post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
4. There is no significant difference of post environmental awareness of low socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
5. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status rural Pupil-teachers taught through social sites and Traditional Method (TM).
6. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status urban Pupil-teachers taught through social sites and Traditional Methods (TM).

(b) Hypothesis related to interactional effect:

7. There is no significant difference between pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods
8. There is no significant difference between pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. There is no significant difference between the pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
10. There is no significant difference between the pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods
11. There is no significant difference between the pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.

1.14 Definition of Terms used in the topic:

A. Social sites:

The term social media is defined as ".a group of internet based applications that build on the ideological and technological foundation of web 2.0 that allow the creation and exchange of user generated content''(Kaplon & Haenlein 2010)

B. Pupil Teachers:

Students those are studying in B.Ed. Course in different faculty namely arts, commerce and science. Pupil-teachers means teachers training. Teacher training means to education and preparation of individuals enabling them to become professional teachers.

C. Environmental Awareness:

Environmental awareness is a broad philosophy, ideology and social movement regarding concerns for environmental conservation and improvement of the health of the environment. Environmental awareness advocates the preservation, restoration and improvement of the natural environment, may be referred to as a movement to control pollution.

1.15 Delimitation of the study :

The delimitations of proposed study shall be as follows-

1. The proposed study will be confined to the rural and urban pupil-teachers of Dehradun city.
2. Pupil-teachers of science, arts and commerce will be taken as the sample.
3. The proposed study will be also delimited to the topic of "Environmental awareness"
4. Researcher will be use the internet, audio-visual aids and traditional methods towards developing environmental awareness.

1.16 Outline of Research:

In last of first chapter format of research study is decided that depends on outline of research work. Outline of main steps of Research work is presented in it. Research questions are answered on the basis of Research outline. Research outline is used to control over errors. So result will be more valid and reliable.

Researcher has included following chapter in research report-

First Chapter : In first chapter introduction of problem, justification of problem, statement of the problem, objectives of Research, hypothesis, terminology used in research and outline of research have been included.

Second Chapter (Study of related literature): In second chapter researcher has been included study of related literature.

Third chapter (Design of Research): In this chapter method used in research, tools and statistics have been used.

Fourth Chapter (Data Collection, Interpretation and analysis): In this chapter data collection interpretation and analysis have been described

Fifth chapter: In this chapter researcher included major findings, suggestions, education implication and summary of the work

Bibliography and appendix have been included at the end.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction:

Extraordinary and miraculous progress of human and construction of his beautiful and glorious future is possible by past findings. He can go forward on the basis of his previous work and can get benefit of it .When researcher selects any problem it is essential for him that he should understand all aspects of related topic then he should go forward.

When researcher selects any problem than before formulation of it he does not inquiry new facts infect he examines the old facts. In research interrelations, causative explanations and driving factors of incidents also analyzed. In research it is essential for researcher to get knowledge of incident and factors related to it.

Review of related literature in research process is important and scientific step because human can construct new knowledge on the basis of old facts. It is a hard step but it is essential and compulsory to give scientific, pure form to work. Meaning of related literature implies locating, reading, and evaluating reports of research as well as reports of causal observation and opinion that are related to individual's planed project. In review of related literature educational journals, books, monographs, yearbooks, dissertation, thesis, publications all are included related to problem.

Review of related literature is having so many benefits. As observed by J.W. Best, "practically all human knowledge can be found in books and libraries, unlike other animals that must start a new with each generation, man builds upon the accumulated and recorded knowledge of part".

If we fail to build this foundation of knowledge provided by the review of related literature, our work is likely to shallow and naïve and well often duplicate those have already been done better by someone else. According to

- **Walter R. Brog**, "The literature in any field forms the foundation upon which all future work will be built."

- **Cater V. Good**, "The keys to the last store house of published literature may open doors to sources of significant problems and explanatory hypothesis and provide helpful orientation for definition of the problems, background for selection of procedure ,comparative data for interpretation of result. In order to be truly creative and original one must lead extensively and critically as a stimulus to thinking"

2.2 Purposes of the Review of Related literature:

Review of related literature; besides allowing the researcher to acquaint herself with current knowledge in the field or area in which researcher is going to conduct her research, serves the following specific purposes:

- The review of related literature enables the researcher to define the limits of her field. It helps the researcher to delimit and define her problem. The knowledge of related literature, brings the researcher up-to-date on the work which others have done and thus to state the objectives clearly and concisely.
- By reviewing the related literature the researcher can avoid unfruitful and useless problem areas. He can select those areas in which positive findings are very likely to result and his endeavours would be likely to add to the knowledge in a meaningful way.
- Through the review of related literature, the researcher can avoid unintentional duplication of well established findings. It is no use to replicate a study when the stability and validity of its results have been clearly established.
- The review of related literature gives the researcher an understanding of the research methodology which refers to the way the study is to be conducted.
- It helps the researcher to know about the tools and instruments which proved to be useful and promising in the previous studies
- The advantage of related literature is also to provide insight into the statistical methods through which validity of results is to be established.
- It is helpful in formation of hypothesis.

- The final and important specific reason for reviewing the related literature is to know about the recommendations of previous researchers listed in their studies for further research.

2.3 Sources of Related literature:

The sources of information have been classified as direct and indirect sources.

- **Direct sources**

In the field of education the direct sources of information are available in the form of education literature of the following types.

- Education journals
- Books, Monographs, Year, books and bulletins.
- Dissertation and thesis
- Government publication

- **Indirect sources**

The indirect sources are available in the form of:-

- Encyclopaedia of Education
- Education Indexes
- Education abstracts
- Directories and bibliographies
- Bibliographical references
- Quotation sources
- Miscellaneous sources

In 20 centaury so many researches have done on environmental awareness, environmental education and developing environmental awareness through social sites .Previous studies are collected from encyclopaedia and internet for presenting research those are divided into two divisions:-

- Research conducted abroad
- Research conducted India

2.4 Studies in India:

In India reported literatures are as follows:

2.4.1Environmental awareness and environmental education: Many researcher of India has done research on environmental awareness and environmental education which are as follows:

P.S. balaj, et. Al., 2017

International educational scientific research journal

"Study on environmental awareness among rural and urban secondary school student in thiruvallur district."

Paper highlights that environmental awareness of male students is slightly better than the female mean score. The environmental awareness of English medium student is slightly better than the Tamil medium students mean score.

Mrs. Neelima Gupta, 2017

IJEDR

"Environmental awareness of urban and rural school students"

Study was conducted to know the environment of urban and rural students of Chhattisgarh state in Raipur city. Study revealed that boys and girls of urban and rural school had similar awareness.

Usha shahu et. Al.

Journal of environmental science & food technology

"Environmental awareness among undergraduate student in rural area"

This paper highlights the attitude and awareness of colleges going undergraduate students towards the environment. This study conducted at govt. Colleges of rural areas. Study revealed that overall level of awareness was found to be average. No. Of students with high level of environmental awareness was found to low and no. of students with low level of environmental awareness was found to high.

The Education commission, 1966

Ministry of Education

"Curriculum should be related to the quality of teachers, the facilities available in the school and the needs of the students with reference to their socio-economic background".

The commission also emphasized the environment as the real laboratory of the school, where children will develop necessary skills for observation, collection of data and drawing conclusions.

Dr. B.K.Tiwari, 1993

The anthropogenic environmental hazards those frequently occur in the mountain region of Uttaranchal, India were identified and enlisted. With an objective to find out the literacy and awareness among the women on the various aspects of the identified hazards, a test was administered on 1000 women (500 urban & 500 rural) of eleven mountain districts of Uttaranchal. The data revealed that 59.6% urban and 34.4% rural women were environmentally literate. 3.6%urban and 13.6% rural women were environmentally aware.

2.4.2Role of Social Sites: Researches that is based on Role of social sites in developing environmental awareness are as follows:

Ruksana Saikia, 2017

National journal of multidisciplinary research and development

"India Role of Mass media in creating environmental awareness"

This paper highlights the role of media in developing environment awareness. Government of India promoting sanitation" Swachcha bharat Abhiyan' has got success by united efforts of people and government.

Noushiba Parveen, 2011

International Journal of Digital Library sciences

"Use of social networking sites (facebook) in makes awareness among the library and information science professionals of university libraries of U.P. A case study"

This paper highlights the purpose of study to explore social networking sites, facebook to work as an effective tool for imparting knowledge in making awareness among library and information science professional of university.

Gupta Anmol Rai, Zafarsahila, VIT university, Tamil Nadu,India,2013

International journal of Engineering research & Technology

"Rural India: the next frontier for social media networks"

This paper highlights the differentiation between the modern day media and traditional media. Its main aim to discuss various field where social media affected rural people's lives and also the fields where media has been lacking. This paper concludes that to achieve India vision 2020, Social media network have to gear up more in rural areas of country because india cannot shine without its village.

Kanchanavalli K, Environment protection, 2015

International journal of student's research in technology and management

"A social media consciousness"

This paper highlights that environment protection is major issues all over the world and how social media can be used as an instrument for environment protection.

Vibha Singh Kushwahasulakhedi, Indore, 2015

International journal of research Granthaalayah

"Mass media in disseminating environmental awareness"

This paper highlights that use of mass media in developing environmental awareness can be a very promising by usage of media such as newspaper, magazines,radio,television and internet.

P.S. Hegadi,Dr. G.R. Angadi Karnataka, 2015

International journal of Research in Engineering IT & Social science.

"Facebook as an instructional tool in fostering academic achievement, Social Interaction skills and attitude towards use of facebook"

In this paper researcher highlights the use of facebook as an instructional tool and how facebook impact student –teachers when utilized as instructional tool. The finding of this study help teachers, parents, students and others to cope with the present problems and issues being faced while implementing facebook formally and informally.

Dr. Anjali Puri,Chandigarh,2017

Imperial journal of interdisciplinary research

"Motivations for use of social networking sites in relation to environment awareness among college student"

In this study four motives- social connectivity, recognition, entertainment and information for using social sites taken. Study showed that there exists a significant difference between boys and girls student. Girls student are more motivated to use social networking sites for social connectivity and entertainment than boys. Significant difference was found between motivations for use of social networking sites and environmental awareness among college students.

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Assen khan, 2016

International journal of scientific research and Education

“Media’s support in promoting environment awareness, International journal of scientific research and Education “

This paper discuss about that media is most revolutionary device for spreading consciousness towards environmental protection.

Dr. ManzoorHussain ,Dr, Fayaz Ahmed Loan, Gousia Yassen,2017

International journal of digital library services

“The use of social networking sites (SNS) by the post graduate students”

This paper highlights that student at high level use social networking sites. Students who use SNS spend 1.43 hours as an average on SNS per day and mostly use SNS to gain knowledge, to be in touch with family and friends to share information and promote social, religious, political and environmental awareness and few for passing time.

P. Sri Jothi, M. Neelamalarand R. Shakthi Prasad, 2011

“Analysis of social networking sites: A study on effective communication strategy in developing brand communication”

Internet is the emerging information technology with the credibility of immediacy and fastness, thus, it brings globalization in every aspects of communication

Vinita Jain, 2012

"Use of social networking sites and Web 2.0tools in academic library: An Overview*”*

Social networking sites could enable librarian and end users not only to interact, but to share and change resources dynamically in an electronically medium.

CMS ENVIS Center on environment and media, 2014

“Assessment of using social media to raise environmental awareness”

In this study the social networking sites facebook, twitter and linkedin were reviewed for seven day. The study was carried by CMS center , new delhi. It’s

thematic focus is environment and media. Result showed that there is a substantial relationship between the perceived media richness of facebook and perceived awareness towards the energy and environment.

2.5 Studies Abroad

In outside India reported literatures are as follows:

2.5.1Researches related to Environmental awareness:

Researches those are related to environmental awareness are as follows:

Dann Marrie N., Del Mulndoet. Al., 2009

Journal of environmental science and management

"Correlation of socio economic status, environmental awareness, knowledge and perception on solid waste management practices in barangays talisay and balibago, calatagan, batangas, Philippines"

This paper highlights the correlation of socio-economic status, environmental awareness, knowledge and perception with solid waste management practices. The study revealed that family income and environmental awareness are negatively correlated with solid waste management practices. Education attainment, house hold sizes are negatively and environmental knowledge and perception are positively correlated with solid waste management practices.

ITO hiroshi, Kawazoe, Nobuo (2018)

Journal of applied environmental education and communications

"The associations between socio-demographic factors and environmental knowledge in the city of Toyota,Japan"

This study highlights the relationship between socio demographic factor (age, sex, education and household income) and environmental knowledge. The findings suggest that education and household income are significantly associated with environmental awareness.

Shelest ,Ksenia D. Iono,Jan 2017

International journal of sustainability in higher education

“Environmental awareness rising through universities –city authorities’ cooperation”

This paper highlights the environmental volunteers moment in the area of costal oil response operation in St. Petersberg. This was successful initiatives of environmental awareness through universities and city authority’s cooperation’s.

The purpose of study is to give knowledge and skill required by expert and young pupil to run together rescue and oil spill response operations. Practical field training with simulated oil accident were realized.

Bozkurt Aras, et. Al., 2017

Journal of learning for development

“Social networking sites as communication interaction and learning environments perceptions and preferences of distance education students”

Study highlights that the social networking sites provide opportunities for communication interaction especially for distance education students who are separated from teachers, learning resources and other students in term of time and space. The research revealed that SNS can be used to support social learning process.

HuseyinUzunbayuesal, 2009

Computers and Education

“Using mobile learning to increase environmental awareness”

This study investigates the use of integrating uses of mobile technologies, data services and messaging and to increase environmental awareness. Data was collected using “usefulness of mobile learning systems” questionnaire from a sample consisting of 20 male & 21 female undergraduate students. Students use mobile to transmit photographic of local environment be lights and to exchange pictures and observations participants. Participants learned to way save environment.

Grady C. Erickson , 2010

Thesis

Does Socio economic status affect environmental awareness in elementary school children interacting with school gardens?

This is case study-In this study researcher involve three elementary school from three different economic backgrounds. It was find out that higher social background school students have higher environmental awareness than low socio economic background student.

Szagun and Mesenholl, 1993

Administered a questionnaire assessing the ethical and emotional concern about nature on 830 adolescents of 12, 15 and 18 year aged in West Germany. The consideration in dealing with nature and degree of sympathy with living things was high. On both seats, scores were highest for females than for their male age mates. The same was true for scores measuring enjoyment of nature.

Hugh Matthews, 1995

In this paper the author reviews those studies which have drawn attention to how culture affects children's behaviour in large-scale environments and refers to an empirical study of a group of young Kenyan children which examines the relationship between environmental experience and selected dimensions of environmental awareness, namely mapping skills , place and route descriptions.

Johns Gambro and Harvey N. switzky, 1996

Mentioned in their study that most of 12th grade students were able to recognise basic facts concerning environmental problems such that knowledge to determine the consequences of potential solutions for those environmental issues.

Earth Summit 92 review Meeting U.N., 1997

One week meeting held at Luxemburg (New York) for the review of Earth Summit 92 held in Rio de Janeiro. It remained very sad experience of the environmentalists as well as for developing countries that the meeting ended without any fruitful conclusion .Following points may be treated as the outcomes of the summits.

- Carbon dioxide and other gases produced as a result of green house effect were considered the main cause of raising temperature in atmosphere.

- Quantity or pure water is continuous reducing on the earth.
- 129500 square kilometres of forests are deforesting every year.
- More than 1000 million people are living below the line of poverty in the world.
- One Govt. atomic refinery company coalman is mixing its waste into the Atlantic sea, due to which water of the sea is becoming densely radioactive, on-government organization of the world remarking that multinational companies are over ruling openly the compromise held in earth summit in Brazil.

Kaisakorhonen,Anu Lappalainen, University of Helsinki, Finland , 2004

This paper examines children's and adolescents' environmental awareness in ruralMadagascar. For data collection two types of 8 to 21 years old students and 18 school were used. The aim of this comparative study was to find out the environmental knowledge and awareness of the children and adolescent.

Geneviève M. Perron', Raymond P. Côtéand John F. Duffy, 2005

The need for and the benefits of a more sustainable approach to business management have been widely discussed in the literature. A case study of two electricity companies is used to find out environmental awareness effort.

The results of the study suggest that one time training did not developed environmental awareness in trainees.

Shobeiri, S. M., Omidvar, and Prahallada, N. , 2006

The study investigated secondary school students' environmental awareness in India and Iran. Nine hundred and ninety-one students were selected. 103 secondary schools of Mysore city (India) and Tehran city (Iran) were selected. Subjects consisted of 476 boys and 515 girls

Environmental ability .measure test was applied. There was significant difference respect of their environmental awareness between Iran and Indian student’s .Gender wise difference was also found.

Gaye Tuncer , SemraSungur, CerenTekkaya , HamideErtepinar, 2007

The aim of the present study was to find out environmental attitude of Turkish children and pre-service teachers. Sample was 1235 students and 334 pre – service teachers.

Study revealed that all participants accepted that pollution is major problem and they were aware of finding it's solution. Significant difference was found between pre-service teachers and children in their attitude towards the environment.

BarendVlaardingerbroek , T.G. Neil Taylor, 2007

This paper presents study of final-year primary and secondary teaching students in Lebanon. Researcher used equivalent Australian sample as a comparative reference group.

It was found that the Lebanese students lagged behind their Australian counterparts with respect to their knowledge of global environmental issues.. Recommendations focus on that environmental education should be given at and pre-service teacher in Lebanon.

Rivera-Rentas, M. Vilches, E. Davila, C. Rebollo, M. Rodriguez, J. Garcia, S. Seguinot , 2007

This paper highlights that work was taken for integration between environmental education, science, technology and research in a fifth grade science curriculum .sample was taken from two elementary public suburban school's graduate fellow and a fifth grade science teacher.

The teams developed educational and scientific strategies using a constructivism approach that promoted cooperative learning, students' active participation and the integration of the school community. A month-long lesson on waste management and water resources was developed based on students' research on community environmental perceptions. Students' academic achievement in science was significantly improved by the implemented strategies, seen as a 50% increase in the number of excellent (A) and good (B) grades. Through this work, the

students completed scientific research projects of environmental significance for their communities and presented them at the school's science fair and environmental day.

Mustafa Ozden, Jan 2008

The purpose of the study is to assess the Environmental awareness and attitudes of student teachers in Turkey. The relationship between the student teachers' attitudes and their gender, academic major, grade level, geographical region and socioeconomic status was evaluated with an instrument developed by the researcher. The present descriptive study was carried out 0n 830 faculty of education at University of Adiyaman in Turkey.

Results of T-test and ANOVA showed that the female elementary student teachers in the last year of an instruction programme had more positive attitudes towards the environmental attitude than the other student teachers.

Maryan Laiyani and K. Yeshodhara, 2008

The present study is an attempt to study the environmental attitude of Indian and Iranian teachers. Attitude towards environment was highly differ between them. A total of 1000 teachers (500 Indian and 500 Iranian) teaching in 6^{th} and 7^{th} standards were randomly selected for the present study.

The environmental attitude scale (health, hygiene, wildlife, forests, polluters population explosion and environmental concern) was employed to assess the level of attitude in each component. The data on Indian sample was collected in Mysore city and data on Iranian teachers was collected in Hamedan city.

Annova test was employed to find out the significance of difference between the teachers of two countries as well as male and female teachers. Results revealed that Iranian teachers had most favourable attitude in all the components except in Wildlife. Only in Wildlife Indian teachers had most favourable attitude as compared to their Iranian counterparts. Male and female teachers differed significantly in most of the factors except population explosion and total attitude scores. An implication was environmental education also stressed.

EU Member State, 2009

In this paper the results of the comparative study carried out in two countries Austria and Romania. Four sets of questions related to environmental problems and aspects regarding the administration organization specialized or qualified for administration of environmental problems have been elaborated, each set containing 20 questions, which were answered by different categories of education..

The analyses of the results were first considered separately for each group of subjects and then perceptual analyses were carried out on the correct answers. The comparison of the data obtained using the subjects of the two countries has emphasized a similar interest and a comparable level of knowledge.

2.5.2 Researches on role of social media in developing environmental awareness:

Researches related to role of social media in developing environmental awareness is as follows:

Julie Prescolt , Mathew Stodard ,Gordon Backet & Sarah Wilson .

Health and social care education

"The Experience of using facebook as an educational tool"

This paper highlights benefits of social networking sites for educational purpose. This study involved interviews with seven academic members of staff at one UK university,who used facebook in their teaching. This study provides a unique insight intostudents.

Lynette Drevin, Crunther R. Drevin, 2013

International Journal of Computer and Systems originating

"Engagement of young people in social Networks Awareness and Security"

This study attempts threats of using social networking sites. This paper defines that people should aware the negative impact of social sites and mobile

Technologies. Educator's focus towards the safer cyber interconnection and more responsible online use.

PerlalOrs ,2012

Procedia-social and Behavioural science,Elsevier

Environmental Education and the role of media in environmental education in turkey"

In this context, media is an important tool in environmental education. Environmental awareness and concept of environment discussion is very recent in turkey. The purpose of the study is to find out the media contribution to environmental education and awareness.

Paulin Bugler, 2004

Conference on ICT for education, Training & Skill development, Africa's

"How useful is facebook as an instructional tool at university level"

This paper highlights that educators and researchers are in two minds. Media is effective tool for teaching –learning process while other say facebook has little educational value and doesn't serve any academic purpose. According to this study researcher finds out the uses of social network in academics.

Masive Zita,Clayton Burger, BreudaScholtz,2014

28th Envir Info 2014 conference Oldenbury, Germany

"The use of social Media as an enable to create environmental awareness of staff in higher Education"

This paper explains the use of social media in staff members of higher education. The sample was academic, professional & support staff at nelson Mandela metropolitan university. Content was based on renewable energy, environmental management and biodiversity protection. It was find out that knowledge of environment increased which was examined through assessment.

Muhamad Sham Shahkal Ali, 2011

International conference on social science and humanity

"The use of face book to increase climate change awareness among employees"

The aim of study to excessive the use of face book to increase climate change awareness among employee, data was collected using a questionnaire from a sample consisting of 20 employees. The result showed that there is substantial relationship between perceived media richness of face book and perceived climate change awareness.

Pham, Andy V. , Goforth,2014.

School psychology forum,

"Social networking in school psychology training programme. A survey of faculty and graduate students"

The purpose of the study to collect data from survey on social networking among faculty and graduate students in school phycology and training programme.
Findings: Findings revealed graduate students are more engaged on social sites than faculty. There were mix result to use of social sites by students (learning) and faculty (teaching).

Michael D. Richardson et al., 2015

The international journal of technology educational & marketing

"The use of social media as an instructional tool to increase marketing"

In today's technological world students are socializing, stay connected, informed. But this may not same for instructor, researcher tried to find out that can social media can be used in higher education to improve learning through students and faculty collaboration.

S. Manca, M. Ranieri,2013

Journal of computer assisted learning

"Is it a tool suitable review of the literature on facebook as a technology enhanced learning environment"

This paper highlights that the educational value of facebook is not fully determined. Use of facebook for educational purposes is lacking. This article attempts to provide critical overview of current studies focusing on the use of facebook as a technology-enhanced learning environment, with the aim of find out it's use into practice.

Alakpodia,ionome Norah,2015

International journal of information and communication technology education

"Social networking among library and information science undergraduate students"

In this study , student completed a questioners to know their awareness about social networking sites .Finding revealed that most of students use social sites and their most used site is facebook. No significant difference in the uses of social networking sites by male and female, Library and information science (LIS) students' .They have significant relationship between age of students and social networking sites they use.

MalliaGorg.,2014

IGI Global publication

"The social classroom: integrating social network use in education"**,**

The main aim of this book to define the use of social site in formal and informal learning's. It is very useful book for all educators and trainers and academic researchers in all aspect of education. For utilizing social sites in large extents.

Exarchou,Evi et. Al. , 2015

Review of international geographical education

"Using a social web 2.0 tool in geography and environmental research. Project: A content analysis of Greek high school students learning exchanges online"

This paper highlights the contribution of geographic education in development of environmental awareness of world's societies. This study is based on interaction of high school of Athens students (N=16) during an eight month geography and environment for sustainability research project in a social commuting.

As a result there was at satisfactory level with complete learning developing essential skills for geography and environmental approach throughout the project.

Fengu D. U. ,Jiangfeng Zhang et al.,2016

Applied energy

"Modelling the impact of social network on energy saving"

In this paper a mathematical mode of human behavioural dynamic interaction on social network is used to calculate save energy. This model is tested on 40 people consisting social network. This paper illustrate that the model can be used to find out which person will have the most effect on social network.

Carolyn M. Shaw,2015

International studies association and PD, oxford university press

"Using facebook as an educational resources in the classroom"

This paper highlights that facebook helps in creating a sense of community and promotion collaboration, enhancing communication between instructor and students, Developing computer literacy and language skills, sharing and discussion of current events in the news.

Shelest ,Ksenia D. Ionov,(2017)

International journal of sustainability in higher education

"Environmental awareness rising through universities – city authority's cooperation"

This paper highlights the environmental volunteers moment in the area of costal oil response operation in St. Petersberg. This was successful initiatives of environmental awareness through universities and city authority's cooperation's.

The purpose of study is to give knowledge and skill required by expert and young pupil to run together rescue and oil spill response operations. Practical field training with simulated oil accident were realized.

MariwanRahim, Jawan Jalaladeen ,2016

Journal of arts, Literature, Humanities and social sciences

"The Role of social media on environmental awareness of undergraduate students in university of sulaimi in Iraq"

Aim of this paper is to investigate role of social sites on environmental awareness of undergraduate students. The result shows that mostly students use social media (Facebook) four times daily. New and information is most priority. Face book as number one, YouTube as number two, Instagram number three and twitter number four consecutively as level of priority of environmental interest to students.

AlshoaibiRana et al. ,2017

English language teaching

"Perception of using social networking sites for learning English in the Saudi contexts"

The Aim of the study to find out to use of social networking site for learning English and identified that there is difference between male and female university students in terms of use in social networking sites for learning English inside and outside the class.

Study revealed that male students have a positive perception to use social networking sites and YouTube website was more frequently use site for this. But in comparison there was negative perception to use of social networking site in female students and they do not have any favourite social sites.

Suraya Hamid et. al.(2016)

International journal of sustainability in higher education

"Social Media for environmental sustainability awareness in higher education"

The paper aims to capture, summarise, synthesize and comment on role of garner interest of students and staff on environmental sustainability issues. Finding of this paper suggest that higher education needs to fully leverage the obliquity of social media to extend how environmental sustainability is views by students and staff.

Ligia F. Espinosa Ikiam Regional university, Tena,Ecuador, 2015

Theory and practice in language studies

“The use of facebook for educational purposes in EFL classrooms”

The objective of this study to analyse the mix of conventional instruction with online instruction. Researcher used facebook in EFL classroom to motive students to improve their English language. This paper examine the specific way to use facebook as instructional tool, benefits of this technological instruments and analysing the potential pit falls and also include practical strategies that teacher can apply in order to overcome these pitfalls.

Hung, David; Chen, Der-Thanq, 2003

“Online Learning and Information Technology in the Asia-Pacific Region: Perspectives, Issues, and Divides”

This special issue presents articles contributed by academics from the Asia-Pacific region on perspectives and progress made in online learning and information technology (IT).

Lin, Yimei, 2007

“In and Beyond the Classroom: Making Informal Learning Truly Ubiquitous with Highly Mobile Devices”

In a world that is increasingly mobile and connected, the nature of information resources is changing, and wireless mobile technologies provide access to a wide range of resources and tools, anywhere and anytime.

Wise,Alyssa;Duffy,Thomas M; Padmanabhan,Poornima,2008

"Deepening Online Conversation: How and Why to Use a Common Referent to Connect Learners with Diverse Local Practices".

In this article, the authors argue that online learning conversations need to go beyond the common "information exchange" to a deeper level of interaction in order to help learners build situated knowledge that is useful in their local contexts.

Wise,Alyssa;Duffy,Thomas M; Padmanabhan,Poornima,2008

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Kurt, Serhat,**2009**

"Web2Quests: Updating a Popular Web-Based Inquiry-Oriented Activity"

WebQuest is a popular inquiry-oriented activity in which learners use Web resources.

Gulbahar, Yasemin; Kalelioglu, Filiz, 2010

"Active Learning through Online Instruction"

This article explores the use of proper instructional techniques in online discussions that lead to meaningful learning.

Cayari, Christopher,**2011**

"The YouTube Effect: How YouTube Has Provided New Ways to Consume, Create, and Share Music "

This case study about a teenage musician, Wade Johnston, suggests how YouTube has affected music consumption, creation, and sharing. A literature review connects education, technology, and media.

Shiffman,D.S,**2012**

"Twitter as a Tool for Conservation Education and Outreach: What Scientific Conferences Can Do to Promote Live-Tweeting"

If more conservation-minded citizens were aware of certain environmental threats and how to resolve them, these issues could be resolved more effectively.

Pimmer, Christoph; Linxen, Sebastian; Grohbiel, Urs ,2012

"Face book as a Learning Tool? A Case Study on the Appropriation of Social Network Sites from Mobile Phones in Developing Countries "

This exploratory research investigates how students and professionals use social network sites (SNSs) in the setting of developing and emerging countries. Data collection included focus groups consisting of medical students and faculty as well as the analysis of a Facebook site centered on medical and clinical topics.

Muhamad Sham Shahkat Ali

"The Use of Facebook to Increase Climate Change Awareness among Employees"

The explosion of Facebook has suggested the richness of new media for effective communications to engage employees

Stepanie Renee Hunter Brown Librerty University, Lynchburg VA, 2012

Dissertation

"Facebook as an instructional tool in the secondary classroom: A case study"

The purpose of this study is to determine the social and academic social impact media network when it is used as a instructional tool. Findings revealed that teachers and student views was similar in relation to student behaviour academically and socially.

Jhena Vigras,2015

Thesis, university of Michigan

"Energy and Environment, can social media encourage Environmentally Responsible Behaviour? (Using facebook to encourage waste Reduction on campus)"

This study highlights that use of social media (face book) to motivate and engage student in Burley Hall Dormitory to reduce their waste in four categories: food, waste, energy and solid waste. This study showed that social media based approaches may be appealing, but depending solely on this medium may be ineffective in encouraging conservation behaviours'.

NatasaPatrovic, 2012

Conference paper

"Possible educational use of facebook in higher environmental education"

Today time facebook is considered most popular online social networking site among youtube.This research is focused on achievement level of environmental education by using facebook among students of faculty on organizational science,university of Belgrade,Serbia. Result shows that facebook can be good medium in higher education.

Thao N.Guyen, 2017

Thesis in media education, University of tampere

"Use of facebook for educational purposes: Advantages ,difficulties and potential for connecting learning"

Researcher highlights that use of facebook as instructional tool is controversial but aim of study examining the use of facebook as educational purpose.

Findings from the research confirmed the usages of facebook for educational purpose including communication, collaboration and sharing resources of materials.

Isham Shah Hasan, 2014

"Facebook as a tool for teaching and learning"

This paper highlights the experience in using facebook for architectural students in port Dickson polytechnic for both formal and informal learning. Students quickly responses the lectures question on facebook. Student can share their knowledge after class. It is good tool for polytechnic.

Julie Perscoff , 2014

"Teaching style and attitude towards facebook as an educational tool"

This paper highlights the attitude of teaching staff of U.K. University towards facebook and online professional ,interns of student-staff relationship, Researcher

used a adult learning scale to find that teaching staff with teacher center style or with a learning center . Result found that difference in attitude were found that teacher centred style do not view online.

Edudemic staff, 2015

"How to use social media as a learning tool"

Social media is a integrated part of society. If we want to bring real world in our class room, consider social media as part of class room.

ThatoTbbere,Branda Scholtz and P. Calitz,2016

Information technology in environmental Engineering

"Using social media to improve environmental awareness in higher education institution"

This paper proposes a conceptual model Social media for environmental awareness (SMENA) model, for improving knowledge of environmental issues by means of social media campaign. The result showed that environmental knowledge increase as a result of the campaign

Aaron M. Fewkes,MikeMc cable ,Nipssing University,

Journal of Digital learning in Teacher Education

"Facebook: learning tool for Distraction"

This article explores the use of facebook as educational tool for secondary school students. Researcher collected data from 63 students via a questionare. 73% of respondents reported having used facebook for educational purpose, 27% said that at least one teacher has found way to include facebook in their lessons. Result shows that teachers also feel comfortable enough to emlarace this informal teaching tool.

Andre P. Caltiz , Brenda Scholtz ,

Information Technology in environmental engineering (ITEE), Port Elizabeth

"Using social media to improve environmental awareness in higher education institution"

This paper highlights use of environmental awareness (SMENA) model consist of three phases of campaign and factors affecting each phase. Model was implemented at a South African university. The result showed that environmental knowledge increase as a result of campaign.

2.6 Concluding Statement:

After review of related literature following points have emerged out.

- So many researches have been conducted on environmental awareness in India but no more research have been conducted on environmental awareness of urban and rural pupil teachers.
- There may have been conducted some study about developing environmental awareness through social sites in abroad but it is lacking in india.
- In india few studies have been undertaken on environmental awareness through social sites that is since 2013 to 2018 and no studies have been undertaken on comparative study of environmental awareness in rural and urban pupil-teachers through social sites and traditional methods.

Thus Researcher has taken this study and tried to cover pitfalls of education.

CHAPTER 3
DESIGN OF RESEARCH

3.1Introduction:

A scholar discovers the new truth by their research work. His research work is considered to be prominent key, which is essential to the opening of new solid doors in any field. After reviewing the related literature next step of research process is the research methodology. The success of research work depends on its planning and process.

This chapter deals with the methodology add design carried out (2x2x2) factorial design to find out the effect of three variables such as rural urban, socio economic-status and treatment methods (traditional and social sites) On Environmental awareness of Pupil-teachers. A well designed research design is essential to obtain research questions .objectives of this study is related to a study of development of environmental awareness in Urban, rural and socio –economic status of Pupil-Teachers through social networking sites, For this purpose it is necessary to see the effect of social networking sites in developing environmental awareness after determining the initial level of environmental awareness in pupil-teachers through pre test . Social sites have been used as a treatment and final level of achievement of environmental awareness in pupil – teachers have been determined through post test. Thus to achieve these objectives the design of the study has been developed.

3.2Research Method:

Research methods are of utmost important in a research process. A good deal of objectivity, reliability of a research report depends on method. This indicates the various step of plan of attack to be adopted in solving a research problem.

In words of **Henery Lesta smith**, “There are many ways and means of gathering, analyzing and reporting research data.”

In research literature many variation of different terms are used to designate shades of meaning Research work use terms, which suit their own needs and express their own purpose.

The decision about the method to be employed depends upon the nature of problem selected and kind of data necessary for its solution. All researches in the field of educational research generally follow one or a combination of the following type methods in vogue:

- Historical Research
- Descriptive Research
  - Survey method
  - Case study
  - Climatic study
  - Follow up study
- Research study- Research in the social sciences follows the under mentioned categories of methods. So far as the methodology are concerns.
  - Laboratory
  - Field Experiment
  - Survey Research

Of the above-mentioned methods the researcher used Experimental Research for his study that is “A comparative study of environmental awareness in urban and rural women pupil-Teachers through social sites and Traditional methods.”

Selection of research method depends upon the nature of the study and objectives to be achieved. The proposed study has been designed to compare the effectiveness of social sites with traditional method in developing environmental awareness in pupil teachers .The nature of the study is experimental .The following points contribute to the justification of the proposed method of the study.

- In the study the cause and effect relationship has been established by manipulating control variables over the independent variables.
- It tests the hypotheses by identifying functional relationship between dependent and independent variables.
- Experiment is the type of investigation where question can best be answered by obtaining data under deliberately created conditions.
- Biases have been removed by selecting individuals at random from same population, using stratified random sampling technique.
- In the experiment certain conditions or variables are kept constant for all treatments; these conditions are termed as "controlled conditions or controlled variables". The following four conditions or variable have been considered as controlled variable in this study-
-

Table 3.1: Controlled variable

I.	**Grade**	Pupil-Teachers will be taken for treatment.
II.	**Medium of Instruction**	Treatment has been given by social sites and traditional method to selected pupil-Teachers.
III.	**Contents**	The same Instructional material i.e. information related to environmental awareness has been used for experimental and controlled group pupil-teachers.
IV.	**Age**	Age of pupil-teachers are between 21 to 28

Experimental method has been employed on selected pupil-teachers .one experimental factor i.e. use of a social networking sites for developing environmental awareness has been applied to the first group for treatment and second group has been treated with traditional methods.

3.3Variables

Variables are two types:

- dependent Variable
- independent variable

Independent variables are urban and rural, socio economic status, social sites and traditional methods, only one variable is considered depended that is environmental awareness.

3.4 Population

By population in research project means the aggregate or totality of objects, subjects or individuals regarding which inference are to be made. A population is any group of individuals that have one or more characteristics in common that are of interest to the researcher. The notion of a population implies a wider group from which the sample is drawn.

Dr. R.A. Sharma defined population thus "Population or universes means the entire mass of observation i.e. which is the present group? From which the sample to be formed."

Approximately 2450 pupil-teachers studying in different B.Ed. Colleges (25 nos.) of Dehradun distt .It is the population of pupil - teachers.

3.5 Sample of the Study:

The main criterion of a good sample is that it should be the representative of the target population. The population in a statistical is arbitrarily defined by naming its unique properties. The population in the proposed research consists of the urban &rural pupil - teachers of Dehradun District, Uttrakhand state. Obviously owing to impediments of practical sorts and limitations imposed by time, resources and funds at the disposal of the researcher, it was not possible to design an experiment on the whole population, consequently, in the proposed study, an intact sample of 240 students of pupil- teachers of four B.Ed. institution of Dehradun discrict, Uttrakhand has been taken.

Stratified random sampling method has been followed

Sample was selected from four teachers training (B.Ed.) colleges of Dehradun city:

1. Dayanand Women's Training (PG) college
2. Patrician College of Education
3. Drone's college of Management and technical Education
4. Ashwathama college of Teacher Education

Researcher collected 240 samples from 4 training colleges.Sample is divided in 50% rural pupil-teachers and 50% urban pupil-teachers on the basis of their domicile.

3.7 Status of sample

To complete the present research status of sample is as follows

3.7.1 120 Rural Pupil-teacher

- 60 low socio economic status rural pupil teachers
  - 30 low socio economic status rural pupil teachers taught through traditional method
  - 30 low socio economic status rural pupil teachers are taught through social sites
- 60 high socio economic status rural pupil teachers
  - 30 high socio economic status rural pupil teachers taught through traditional method

- 30 high socio economic status rural pupil teachers taught through social sites

3.7.2 120Urban pupil-teacher

- 60 low socio economic status urban pupil teachers
  - 30 low socio economic status urban pupil teachers taught through traditional method
  - 30 low socio economic status urban pupil teachers are taught through social sites
- 60 high socio economic status urban pupil teachers
  - 30 high socio economic status urban pupil teachers taught through traditional method
  - 30 high socio economic status urban pupil teachers taught through social sites
  -

3.8 Tools employed in the study:

The progress of mankind depends upon well conducted research programmes. Well conducted research programmes postulate sufficient, reliable and valid fact. These facts are obtained through a systematic procedure called research tools. To do any type of research work as described earlier in this chapter data gathering is an essential part, which is always shaped in accordance with the objectives of the study. A great variety of research tools and technique are available for a research work to facilitate the work investigation .The interdependence of device (tool& technique) are the research problem can be marked well, as the research dictates the tool and technique their availability feasibility and relevance and also to reverse of it. These tools and techniques influence the results of study.

3.9 Tools used in the present study

The right selection of tools and techniques are always helpful for the researcher to sort out finding of any research. It is accepted that the reliability and

validity of the research data depend upon the right selection of tools and techniques of research. The researcher has to keep a number of factors view while selecting a research tool. For example the following criteria are kept in mind for the right choice of any of tests to be performed as tool.

Practical Criteria	*Technical Criteria*
1. Purposiveness	1. Standardized
2. Comprehensiveness	2. Objective
3. Acceptability	3. Discriminative
4. Easiness	4. Reliable
5. Economical	5. Valid
6. Representative	6.according to Norms

In a nut shell , the above hints at the norms of selecting tools for all the research work so far as the type of tool are concerned .

They are mainly of two types -

- Standardized tools
- Self- made tools

Therefore, it is choice on the part of researcher to choose the most appropriate instrument and procedure for the collection of data for any kind of research work. Researcher has kept in mind the above criteria while selecting the tools.

Following are the main device for the collection of data, which have proved to be useful in all educational research:

Questionnaires, opinion Aires, question methodology, psychologically test and inventories, observation, checklist, rating scales, score cards, Documents of content Analysis, Interview and sociograms “Guess Who” Techniques and social distance scales of the above devices.

In the present study the researcher has used the following standardized tools to collect data

- Socio –Economic Status Scale (urban & rural) Dr. Ashok K.Kalia and Dr. Sudhir Sahu.

- Environmental Awareness Ability Measure by Dr .Praveen Kumar Jha

3.10 Description of tools:

Researcher used two standard tools which are as follows:

3.10.1 Development of SES Scale:

SES scale is designed to measure social position of a person Urban and Rural areas according to the lifestyle prevailing in both the regions. Socio-economic-status of a person in this scale refers to the "status of his/her family in relation to their level of socio-cultural participation, ability to influence mass, level of education, kind of occupation, financial position, health-wellbeing, lifestyle, level of aspiration, kind of gadgets, services and leisure facilities that the family enjoys", this scale is an endeavour to ascertain the SES of an individual based on current social structure with a new thinking.

It is easy to be administered and acknowledges the social position of an individual in the society. Scoring process of the SES Scale is easy, and objective. To get the total SES scores, the researcher is required to count the SES scores of the answer/options mentioned in the square box, which has been ticked square box by the respondent. In this way it saves time,money and labour. It also minimizes possibility of error of counting of total score by researcher.

Items and Components of SES Scale

The scale comprised of 40 statements in all based on five different dimensions of socio-economic parameters. Distribution of items and components of SES scale is given below:

Table 3.2: Components of SES Scale

Part	Dimension of SES Scale	Items	Total Items
Part-I	Socio-Cultural Component (+information on caste)	1 to 15	15+1
Part-II	Economic Component	16-20	05
Part-III	Possession of Goods and	21-30	10

	services		
Part-IV	Health Component	31-35	05
Part-V	Educational Components (+ information on stream)	36-40	05+1
		Total	40+2=42

Reliability of SES Scale

Reliability of the scale has been measured by Split-half and test-retest method Results given below indicate that the scale if highly reliable.

Table 3.3: Reliability of SES Scale

SPLIT-HALF AND TEST-RETEST RELIABLITY OF SOCIO-ECONOMIC-STATUS-SCALE	
Split-half Method	Test-retest method
0.68	0.86

Validity of SES Scale

All the 40 items of socio-economic-status has been evaluated the various experts. The investigator has established content validity while preparing the preliminary draft of SESS. Expert opinion of teacher educators and language specialists with regard to relevance of each items was sought. For this, a copy of the final draft of SESS was given to nine experts who have been directly or indirectly involved in research. The expert opinion came out to be favourable in terms of the relevance of each item in the scale. This scale has already been used in various researchworks at Post Graduate, M.Phil. and Ph.D. level . The criterion validity was measured by correlating it with Socio=Economic=Status Scale by Prof. Rajbir Singh, Dr.Radhey Shyam and Dr. S. Kumar (2006) and it came out to be 0.85 which is highly significant.

All 42 items (including caste and academic steam) were analysed to measure internal consistency of the SESS through Pearson's Product Moment, Kendall'stau_b and spearman's rho correlation method. Coefficient of correlation is highly

significant in most of the dimensions except only in one dimension i.e. Health Component due to presence of some items with negative scores.

3.10.2 Environmental awareness Ability measure:

The present tool "Environmental Awareness Ability Scale" measure the extent and degree of awareness of people about environmental pollution and its protection. The scale explores the understanding of people about the importance of environment in which they live. And how far the efforts of Government through various legislations, mass-media, electronic media and print media could achieve their goals. Thus, the present tool may prove itself very useful in assessing the knowledge of people and at the same time promoting their awareness; if they need so, about the environmental dimension of sustainable human development.

Development of Scale

It was thus decided to construct an environmental awareness ability scale based on the following dimensions of environment as a whole:

- Causes of pollution,
- Conservation of soil forest, air etc.
- Energy conservation,
- Conservation of human health,
- Conservation of wild-life and animal husbandry.

Seventy-one statements, based on the above five dimensions were prepared. They were subjected to expert judgement where every item was required to be passed on its relevance to the contents and criterion of Environmental awareness. Experts were requested to content validate the scale items. On the basis of their opinion and comments 10 items had to be reframed and 20 were deleted for overall ambiguity. A list of 51 items (including 43 positively and 8 negatively worded) were then finalized. In order to make the test widely usable. For doing item analysis 100 students were randomly selected from High schools and Inter Colleges of saharsa town of bihar. Their responses were scored by using Agree/Disagree categories. A

numerical weightage of 1 (one) was assigned to the response category of Agree in the case of positive items and disagree in the case of negative items.

Item analysis was done by using extreme group comparison method. Response frequencies along with assigned values for the items were tabulated on a maser sheet. Then total scores of the respondents were examined carefully. After that these scores were arranged in descending order (the highest score was placed on the top and lowest score was placed in the bottom). Then from the total cases, top 27% and bottom 27% cases were taken to form two groups. The percentages of the scores of two groups were calculated item-wise. After that biserial correlation coefficients between the scores of two groups were calculated on the basis of Flanagan's table. These correlations were carefully examined and items showing Zero or below .20 value were deleted for being unsatisfactory. Thus, the final form contains 51 items.

Reliability

Three indices of reliability were determined. Split –half reliability was found 61; secondly it was calculated by K-R method and was found .84 and thirdly, it was determined by test-retest method. Two test-retest reliabilities were determined; one after an interval of three months and other of 6 months and the values were found .74 and .71 respectively. Thus, the EAAM bears an adequate degree of reliability. Reliabilities are shown in the following table:

Table 3.4: Reliability of EAAM

Reliabilities			
K-R Method	**Test-retest Method**		**Split-half Method**
N=100	Time gap of 3 months N=50	Time gap of 6 months N=50	N=50
0.84	0.74	0.71	0.61

Validity

To determine validity of the environment awareness ability measure coefficient of correlation between the scores of the present scale and environment awareness scale of tarniji was computed. The coefficient of correlations was found to

be 0.83. The scale also possesses face and content validity since each item was judged by experts.

Scoring

There are 51 items in EAAM. Each agreed item carries the value of 1 mark and each disagree item of zero mark but the negative items are scored inversely. Thus, on the total scale the scores ranged between 0-51. The Scale gives composite scores of environment awareness ability of the subject. Negative items were indicated by the star-mark.

Standardisation

The scale was standardised on 300 boys and 300 girls randomly drawn from 10+2+3 classes of different schools and colleges of saharsa and katihar town of the koshi division of Bihar. The range of age was between 14 and 21 years.

Norms

Norms have been prepared for the EAAM which are as follows:

Table 3.5 Norms for EAAM

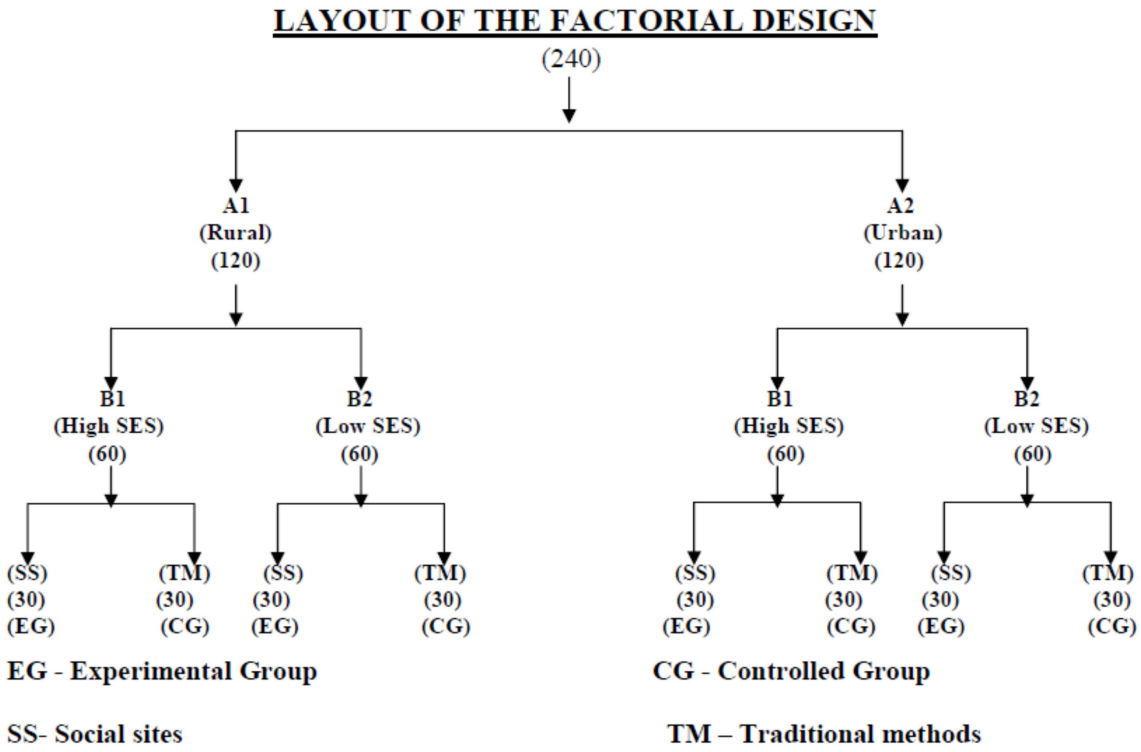
Level of Environmental awareness	**Range of Scores**
High	37-51
Average	16-36
Low	0-15

3.11 Design of the Study:

The proposed study has been conducted through experimental method. It has been based on 2x2x2 mixed factorial design. When more than one independent variable is considered in an experimental study; a mixed factorial design is usually employed. Thus, in the proposed study three independent variables-Instructional Method (Social Sites & Traditional Methods) with rural & urban and Socio-Economic Status (High & Low) will be used so that 2x2x2 mixed factorial design will be adopted. Factorial designs refer more to the assignment of subjects to groups, to the measurement employed and to the statistical analysis techniques than to what is done in subjects.

In the proposed research work the Instructional Methods – Social sites and Traditional Methods are the primary independent variable. Rural & urban and Socio-Economic Status are the other secondary independent variables. The main objective is to ascertain the interactional effect between the independent variables-primary and secondary and dependent variable or criterion variable.

Sample of 240 students has been taken for proposed research. It has been divided into 120 rural and 120 urban pupil-teachers of urban and rural areas .Each group (Rural and Urban) has been further divided into two sub groups of 60 each on the basis of socio-economic status (High and Low).Now the subjects in each combination has been divided into two groups of 30 each. One group of 30 students from each group has been included in experimental group for learning through social site and the other group has been considered as controlled group learning through



on the defined sample according to the predetermined rules given in the manual of related tools.

3.12 Treatment of combinations:

To achieve aims of studying the effectiveness of developing environmental awareness in pupil-teachers through social sites against the Traditional Method, the researcher has been construct two groups on the basis of Urban & Rural background. Each group (Urban & Rural) has been further divided into two sub-groups on the basis of Socio-Economic Status scale(standardized tool) (High & Low).After this researcher used environmental awareness ability measure tool to measure the pre environmental awareness of all selected pupil – teachers.

After this the pupil-teachers in each combination have been divided into two groups. Treatment on the selected topics had been given to first group through social sites and the second group had been treated through Traditional Method (TM). Researcher used facebook to give instructions related to environment .Given instructions were related to environmental awareness tool of pre test .Researcher used following steps to instruct the pupil teachers through social –sites:

- Researcher made page on facebook as 'environmental awareness of Anju Gupta'. Selected experimental group pupil-teachers are informed about it.
- Researcher provided information's, picture of environment for 2 months on facebook page. Pupil -teachers followed it.
- parallaley researcher instruct the other group through traditional method.
- After this researcher applied post environmental test for all pupil-teachers.

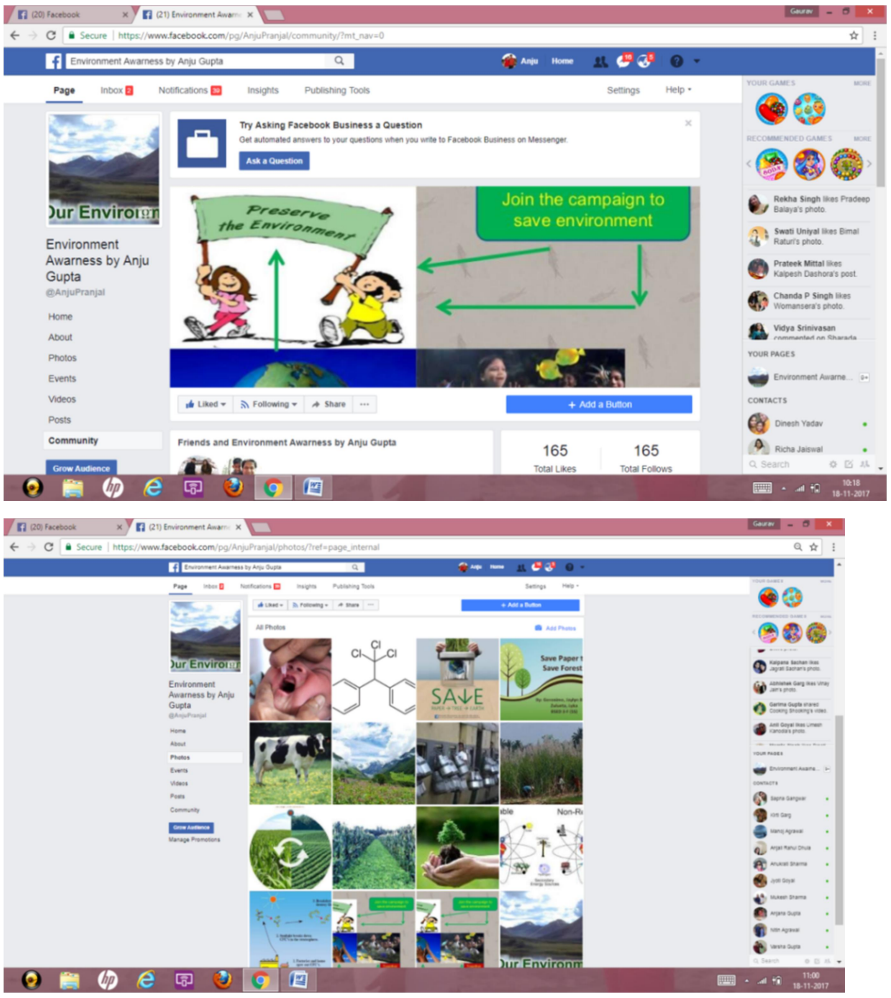


Figure 3.3: Facebook page by Anju Gupta and details

Researcher has shown pictorial view of given treatment to visualize the better understanding of treatment method. After this Researcher used statistically techniques to find out the result.

3.13 Statistical Techniques used:

The following statistics will be used for testing the constructed null hypothesis -

- Mean
- Standard Deviation
- T-test
- Annova

3.14 Concluding Statement:

The present study deals with method tools and techniques applied by researcher in her study. Researcher applied SES scale and environmental awareness tool to evaluate the environmental awareness in high and low socio economic status urban and rural pupil-teachers through SS and TM. The constructed tools were relevant to the study concerned and suitably help the researcher to purpose of data collection.

CHAPTER 4
ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction:

However, Valid, reliable and adequate the data may be, it does not serve any worthwhile purpose unless it is carefully edited systematically classified and intelligently interpreted and rationally concluded. Data collected by scholar become significant only as interpreted in light of accepted standards and assumptions. The analysis and interpretation of data involve the objective material in the possession of researcher and his subjective reactions and desire to derive from the data the inherent meaning in their relation to problem. It is an important phase of classification and summarization of data.

Scientific analysis of data involves all the mental processes necessary to find laws, principles and truth, Classification and tabulation of data arranged in a scientific manner. Martz has pointed out – "Bare facts, objective data, never determine anything. They become significant only as interpretation in the light of accepted standards and assumptions and these standards in the final analysis are not susceptible of scientific determination. In ordinary life we seldom deal with bare facts but facts interpreted. This interpretation or evolution is determined by the purpose to which we relate the facts."Francis Rummel has stated the importance and nature of analysis and interpretation in these words, "The analysis and interpretation of data involve the objective material in the possession of the researcher and his subjective reaction and desires to derive from the data the inherent meanings in their relation to the problem. To avoid making conclusions and interpretations from insufficient or invalid data, the final data must be anticipated in detail when plans are being made for collecting information.

In this chapter researcher includes the analysis and interpretation of data relates to his study. It would be relevant to give very brief information to our readers regarding the words analysis and interpretation. The research analyst breakdown data

into constituent parts of answer to reach problems. The analysis of data is not adequate to provide answers to research questions, for this interpretation of data is, necessary, one must first of all analyze the data and then interpreted the analysis.

4.2 Specific Objectives of research

Specific objective of research as follows:

1. To study the post environmental awareness in pupil-teachers taught through social sites and traditional methods.
2. To study the post environmental awareness in high and low socio economic status pupil-teachers taught through social sites and traditional methods
3. To study the post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
4. To study the post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
5. To study the post environmental awareness in high and low socio economic status rural pupil-teachers taught through social sites and traditional methods.
6. To study the post environmental awareness in high and low socio economic status urban pupil-teachers taught through social sites and traditional methods.
7. To study the comparison of pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods
8. To study the comparison of pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. To study the comparison of pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods

10. To study the comparison of pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods
11. To study the comparison of pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.
12. To study the pre & post EA of low SES rural pupil –teachers taught through traditional methods.
13. To study the pre & post EA of high SES rural pupil –teachers taught through traditional methods.
14. To study the post EA of high &low SES rural pupil –teachers taught through traditional methods.
15. To study the pre EA of high &low SES rural pupil –teachers taught through traditional methods.
16. To study the post EA of high SES & low SES rural pupil –teachers taught through social sites.
17. To study the post EA of high SES rural pupil-teachers by traditional method & post EA of low SES rural pupil-teachers taught through social sites
18. To study the pre & post EA of low SES urban pupil –teachers taught through traditional methods.
19. To study the pre & post EA of high SES urban pupil –teachers taught through traditional methods.
20. To study the post EA of high &low SES urban pupil –teachers taught through traditional methods.
21. To study the pre EA of high &low SES urban pupil –teachers taught through traditional methods.
22. To study the post EA of high SES & low SES urban pupil –teachers taught through social sites.
23. To study the post EA of high SES urban by traditional method & low SES urban taught through social site

24. To study the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers taught through Traditional methods.
25. To study the post EA of low SES rural pupil-teachers taught through traditional method &Low SES urban pupil-teachers taught through social sites.
26. To study the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.
27. To study the post environmental awareness of Low SES by TM & High SES by SS.

4.3 Hypothesis

1. There is no significant difference of environmental awareness of pupil-teachers taught through social sites and traditional methods.
2. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status pupil -teachers taught through social sites and Traditional Methods (TM).
3. There is no significant difference of post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
4. There is no significant difference of post environmental awareness of low socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
5. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status ruralPupil-teachers taught through social sites and Traditional Method (TM).
6. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status urban Pupil-teachers taught through social sites and Traditional Methods (TM).
7. There is no significant difference between pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods

8. There is no significant difference between pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. There is no significant difference between the pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
10. There is no significant difference between the pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods
11. There is no significant difference between the pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.
12. There is no significant difference between the pre & post EA of low SES rural pupil –teachers taught through traditional methods
13. There is no significant difference between the pre & post EA of high SES rural pupil –teachers taught through traditional methods.
14. There is no significant difference between the post EA of high &low SES rural pupil –teachers taught through traditional methods.
15. There is no significant difference between the pre EA of high &low SES rural pupil –teachers taught through traditional methods.
16. There is no significant difference between the post EA of high SES & post EA of low SES rural pupil –teachers taught through social sites.
17. There is no significant difference between the post EA of high SES rural by traditional method & post EA of low SES rural taught through social sites
18. There is no significant difference between the pre & post EA of low SES urban pupil –teachers taught through traditional methods.
19. There is no significant difference between the pre & post EA of high SES urban pupil –teachers taught through traditional methods.
20. There is no significant difference between the post EA of high &low SES urban pupil –teachers taught through traditional methods.

21. There is no significant difference between the pre EA of high &low SES urban pupil –teachers taught through traditional methods.
22. There is no significant difference between the post EA of high SES & post EA of low SES urban pupil –teachers taught through social sites.
23. There is no significant difference between the post EA of high SES urban by traditional method & post EA of urban low SES taught through social sites
24. There is no significant difference between the post EA of High SES urban Pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional method.
25. There is no significant difference between the low SES rural pupil-teachers taught through TM & low SES urban pupil-teachers taught through SS.
26. There is no significant difference between. the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.
27. There is no significant difference between the post environmental awareness of Low SES by TM & High SES by SS.

4.4 Variables of the Study:

"Variables are properties or characteristics of some event, object, or person that can take on different values or amounts. Variables are things that we measure, control, or manipulate in research. They differ in many respects, most notably in the role they are given in research and in the type of measures that can be applied to them."

The outcome variables and the variables which we calculate statistically are dependent variables. Dependent variable changes on account of independent variables.

Variables which can be manipulated, changed or controlled are called Independent variables. The classifying or attributes independent variables are the variables which cannot be manipulated but the sample can be classified accordingly.

Dependent and independent variables are mostly used in experimental research

where some variables are manipulated so that they are independent from the initial reaction patterns, intentions etc.

The in-dependent variable of the study is:

- Awareness of environment

The demographic variables of the study are:

- Age
- Gender
- Caste
- Discipline (arts, science and commerce).
- Socio-Economic status

4.5 Distribution/Frequency of data

For the present study data was collected from 240 Pupil Teachers of Urban and Rural Background of Dehradun District, of Gender Male and female, caste Generals-St and OBC of (arts, commerce and science discipline) attached to State University, Half of them are treated with social sites promoting Environmental awareness. The Description of Samples is presented in following Tables and Charts.

4.5.1. Rural Pupil –Teachers Sample:

Table 4.1: Rural Gender

Gender	Frequency	Percent
Male	28	23.3
Female	92	76.7
Total	120	100.0

Table 4.2: Rural Caste

Caste	Frequency	Percent
SC-ST	28	23.3
OBC	27	22.5
GEN	65	54.2
Total	120	100.0

Table 4.3: Rural Stream

Stream	Frequency	Percent
Arts	58	48.3
Commerce	21	17.5
Science	41	34.2
Total	120	100.0

Table 4.4: Rural Stanine

Stanine	Frequency	Percent
High income status	67	55.8
low income status	53	44.2
Total	120	100.0

Table 4.5: Rural Pre Environmental awareness

Environmental awareness	Frequency	Percent	Valid Percent	Cumulative Percent
Low awareness status	2	1.7	1.7	1.7
Medium awareness status	54	45.0	45.0	46.7
High awareness status	64	53.3	53.3	100.0
Total	120	100.0	100.0	

Table 4.6 Rural Post Environmental awareness

Environmental awareness	Frequency	Percent	Valid Percent	Cumulative Percent
Medium awareness status	16	13.3	13.3	13.3
High awareness status	104	86.7	86.7	100.0
Total	120	100.0	100.0	

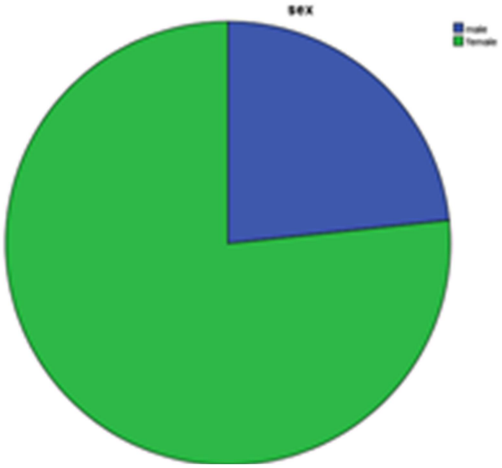


Figure 4.1: Rural Sex distribution

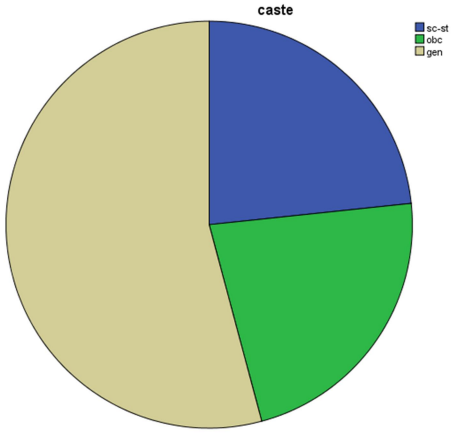


Figure4.2: Rural Caste distribution

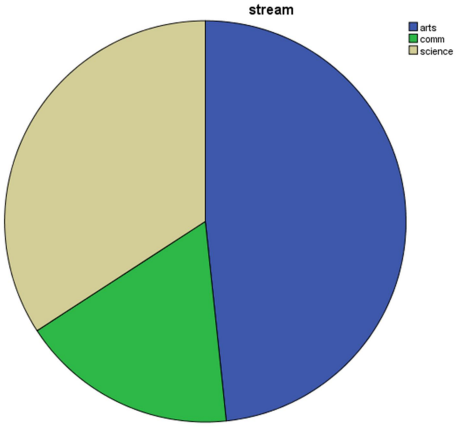


Figure 4.3: Rural Stream distribution

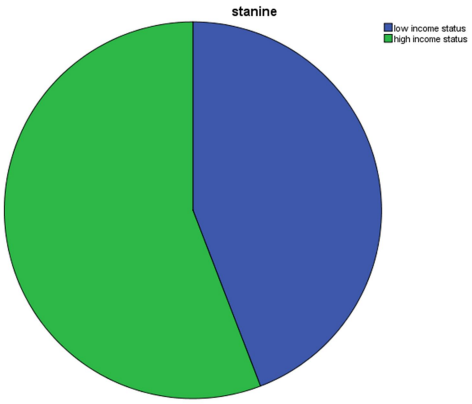


Figure 4.4: Rural SES distribution

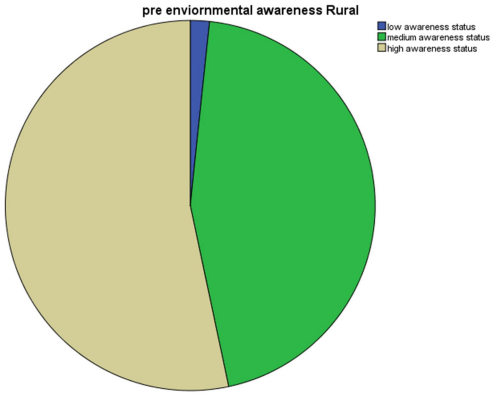


Figure 4.5: Rural Pre EA

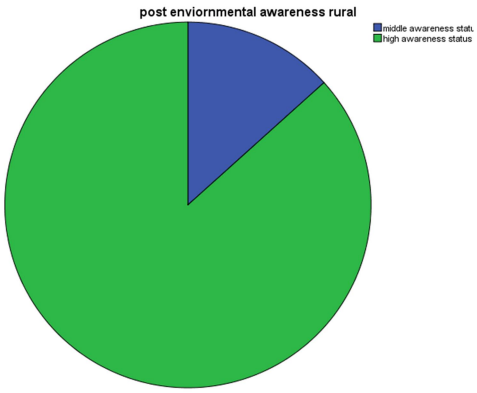


Figure 4.6: Rural Post EA

The maximum frequency is 31 of 23 years. There are 28 male and 92 females of total 120 samples. Out of 120 samples 28 were SC-ST, 27 were OBC, and 65 belongs to General Category. This population included 58 subjects from Arts,21 from commerce and 65 of Science stream. According to Stanine score 67 belongs to high socio economic Status and 53 of low Socio economic status.

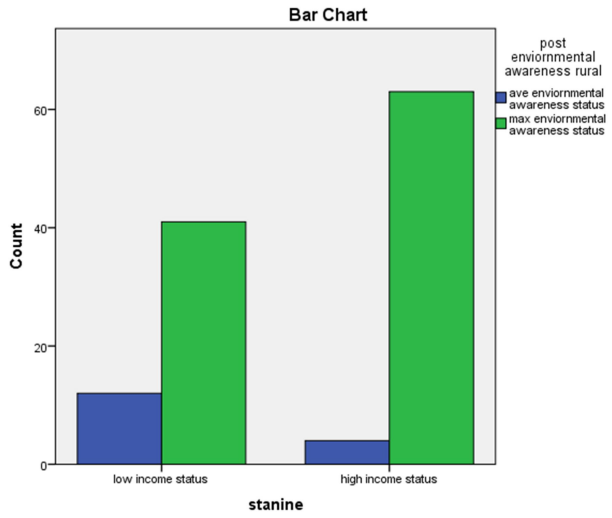


Figure 4.7 :Stainne versus post environmental awareness for rural

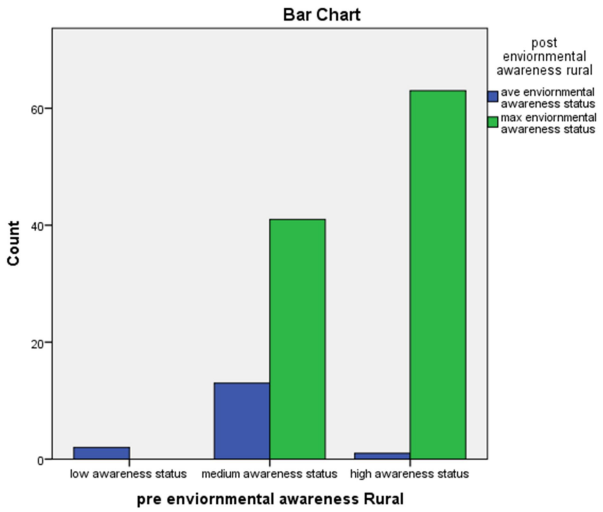


Figure 4.8 : Pre environmental awareness versus post EA for rural

Table 4.7: Association of demographical variable with Pre EA for rural

Variable	Count	Less Environmental Awareness	Medium Environmental Awareness	High Environmental Awareness	Chi Square Value	Sig.	Result
Gender	Male	2	14	12	7.526	0.023	Significant
	Female	0	40	52			
Caste	SC-ST	0	9	19	4.785	0.310	N.S.
	OBC	1	15	11			
	General	1	30	34			
Stream	Art	1	24	33	1.238	0.872	N.S.
	Science	0	11	10			
	Comm.	1	19	21			
Stanine	Low SES	1	27	25	1.449	0.485	N.S.
	High SES	1	27	39			

Table 4.8: Association of demographical variable with Post EA for rural

Variable	Count	Less Environmental Awareness	Medium Environmental Awareness	High Environmental Awareness	Chi Square Value	Sig.	Result
Gender	Male	0	04	24	0.029	0.866	N.S.
	Female	0	12	80			

Caste	SC-ST	0	03	25	0.518	0.772	N.S.
	OBC	0	03	24			
	General	0	10	55			
Stream	Art	0	06	52	1.102	0.576	N.S.
	Science	0	04	17			
	Comm.	0	06	35			
Stanine	Low SES	0	12	41	7.117	0.008	Sign.
	High SES	0	04	63			

4.5.2. Urban Pupil –Teachers Sample:

Table 4.9 Urban Gender

Gender	Frequency	Percent
Male	9	7.5
Female	111	92.5
Total	120	100.0

Table 4.10 Urban Caste

Caste	Frequency	Percent
SC-ST	12	10.0
OBC	14	11.7
GEN	94	78.3
Total	120	100.0

Table 4.11 Urban Stream

Stream	Frequency	Percent
Arts	53	44.2
Commerce	37	30.8
Science	30	25.0
Total	120	100.0

Table 4.12 Urban Stanine

Stanine	Frequency	Percent
High income status	59	49.2
Medium income Status	1	.8
low income status	60	50.0
Total	120	100.0

Table 4.13 Urban Pre EA

Environmental awareness	Frequency	Percent
Low awareness status	01	0.83
Medium awareness status	31	25.83
High awareness status	88	73.33
Total	120	100

Table 4.14 Urban Post EA

Environmental awareness	Frequency	Percent
Medium awareness status	09	7.5
High awareness status	111	92.5
Total	120	100

The maximum frequency is 24 of 23 years. There are 09 male and 111 females of total 120 samples. Out of 120 samples 12 were Sc-St, 14 were OBC, and 94 belongs to General Category. This population included 53 subjects from Arts, 37 from commerce and 30 of Science stream. According to Stanine score 59 belongs to high socio economic Status, 1 to middle socio economic status and 60 of low Socio economic status

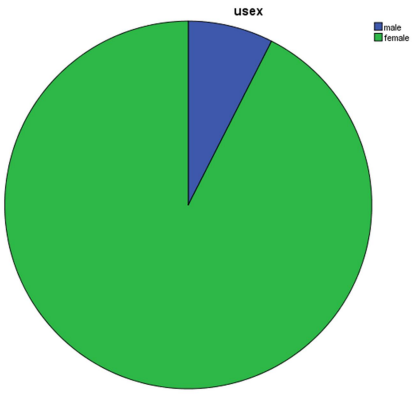


Figure 4.9: urban sex distribution

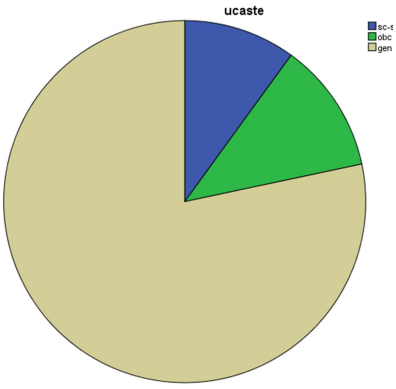


Figure 4.10: urban caste distribution

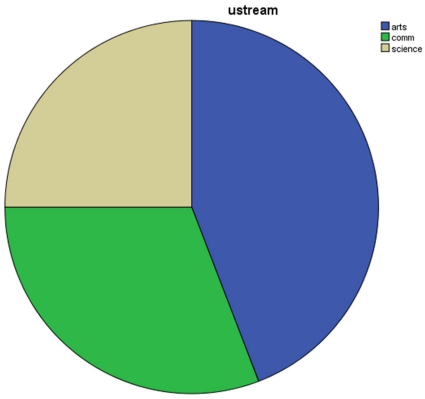


Figure 4.11Urban steam distribution

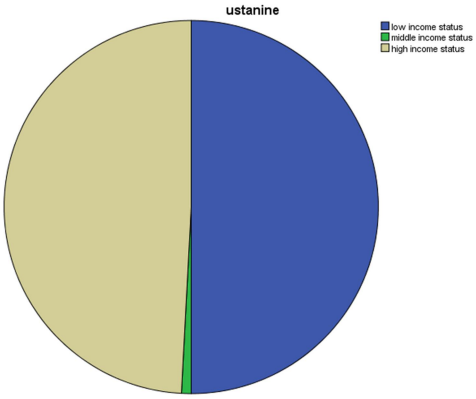


Figure 4.12: urban stanine distribution

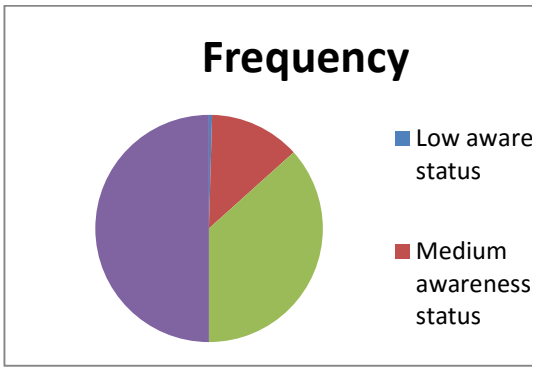


Figure 4.13 Urban Pre EA

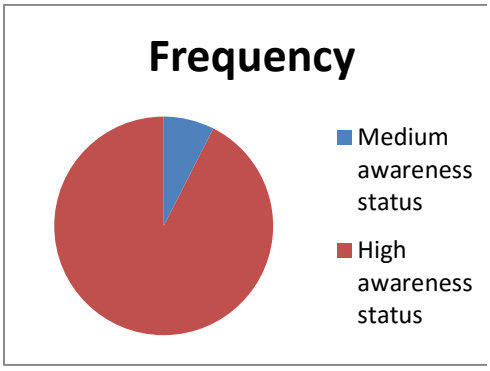


Figure 4.14: Urban Post EA

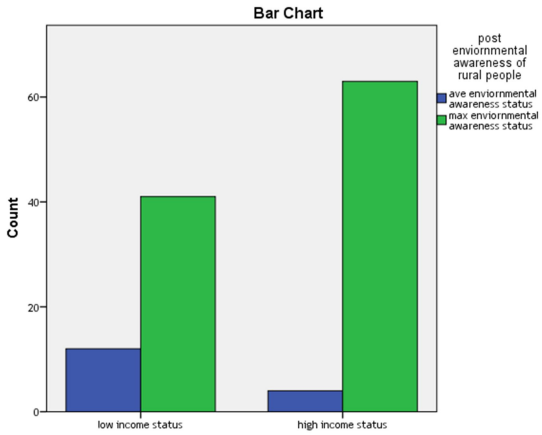


Figure 4.15: stanine versus post environmental awareness of urban

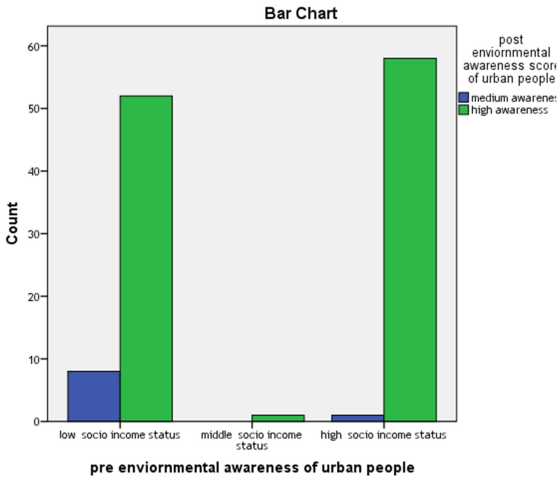


Figure 4.16: Pre environmental awareness versus post for urban

Table 4.15 Association of demographical variable with Pre EA for urban

Variable	Count	Less Environmental Awareness	Medium Environmental Awareness	High Environmental Awareness	Chi Square Value	Sig.	Result
Gender	Male	0	03	06	0.352	0.839	N.S.
	Female	01	28	82			
Caste	SC-ST	0	04	08	3.262	0.515	N.S.
	OBC	0	06	08			
	General	01	21	72			
Stream	Art	01	17	35	3.893	0.421	N.S.
	Science	0	05	25			
	Comm.	0	09	25			
Stanine	Low SES	0	21	39	6.229	0.183	N.S.
	High SES	01	10	49			

Table 4.16: Association of demographical variable with Post EA for urban

Variable	Count	Less Environmental Awareness	Medium Environmental Awareness	High Environmental Awareness	Chi Square Value	Sig.	Result
Gender	Male	0	0	09	0.789	0.483	N.S.
	Female	0	09	102			

Caste	SC-ST	0	01	11	0.993	0.015	Sig.
	OBC	0	01	13			
	General	0	07	87			
Stream	Art	0	06	47	2.100	0.350	N.S.
	Science	0	02	35			
	Commerce	0	01	29			
Stanine	Low SES	0	08	52	5.890	0.053	N.S.
	High SES	0	01	59			

4.6 Analysis of objectives:

Objective 1

To study the post environmental awareness in pupil-teachers taught through social sites and traditional methods.

Table 4.17 Post EA through SS and TM (Annova)

	Sum of Squares	**df**	**Mean Square**	**f**	**Significance value**
Between Groups	391.407	25	15.656	0.887	0.621
Within Groups	1658.718	94	17.646		
Total	2050.125	119			

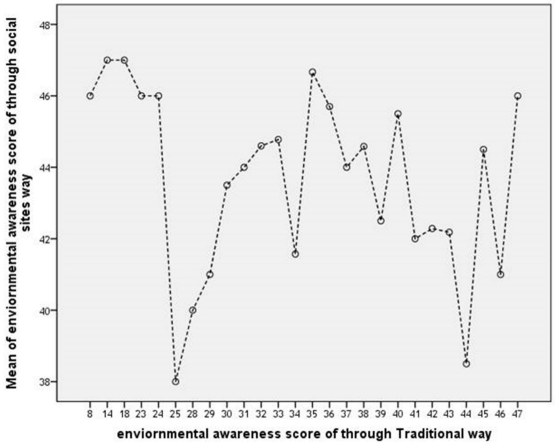


Figure 4.17: Mean plot of Post EA through SS and TM

Table 4.18: Post EA through SS and TM

Post Environmental Score	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Through Social Sites	43.63	4.151	9.820	119	0.000	Significant
Through Traditional	36.23	6.422				

$t_{0.05,\ 119} = 1.658$

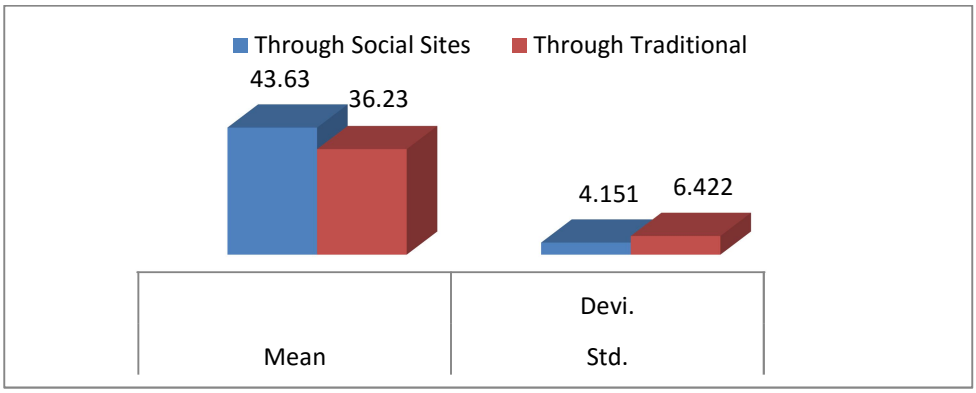


Figure 4.18: Bar Diagram of Post EA through SS and TM

Findings:

The mean environmental awareness score is 43.63 ± 4.151 for pupil-teachers taught by social sites and 36.23 ± 6.422 for traditional method pupil-teachers. The result is significant with p value ≤ 0.05.The Environmental awareness among the pupil-teachers are significantly differ on the basis of treatment methods.

Discussion:

The null hypothesis that there is no significant difference of environmental awareness of pupil-teachers taught through social sites and traditional methods is rejected. social sites can create effective role in teaching learning process that encourage pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method.

Objective 2

To study the post environmental awareness in high and low socio economic status pupil-teachers taught through social sites and traditional methods

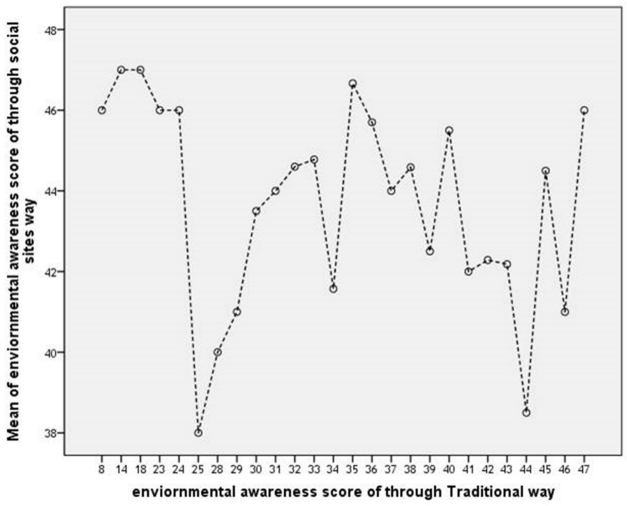


Figure 4.19: Mean plot of Post EA in LSES and HSES

Table 4.19: Post EA in LSES and HSES

Post Environmental Score	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Low SES	36.53	6.053	3.304	119	0.001	Significant
High SES	38.81	5.893				

$t_{0.05,\ 119} = 1.658$

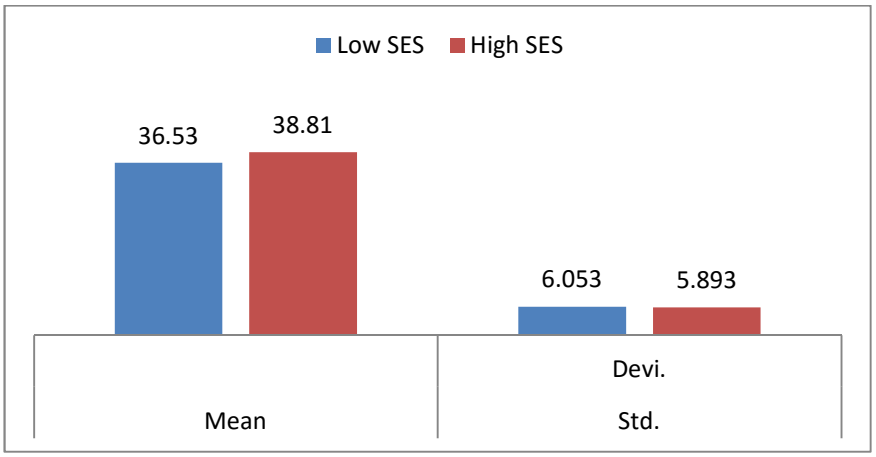


Figure 4.20 :Bar Diagram of Post EA in LSES and HSES

Findings:

The mean post environmental awareness score is 36.53±6.053 for Low socio economic status rural& urban pupil-teachers and 38.81±5.893 for High socio economic status rural& urban pupil-teachers. The result is significant with p value ≤ 0.05.The Environmental awareness among the Low socio economic status pupil-teachers and high socio economic status pupil-teachers taught through social sites and traditional significantly differ on the basis of their socio economic status.

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness of High and Low Socio-Economic Status pupil -teachers taught through social sites and Traditional Methods is rejected. Low SES pupil-

teachers don't concern about environmental problems comparison to high SES pupil-teachers.

Objective 3

To study the post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.

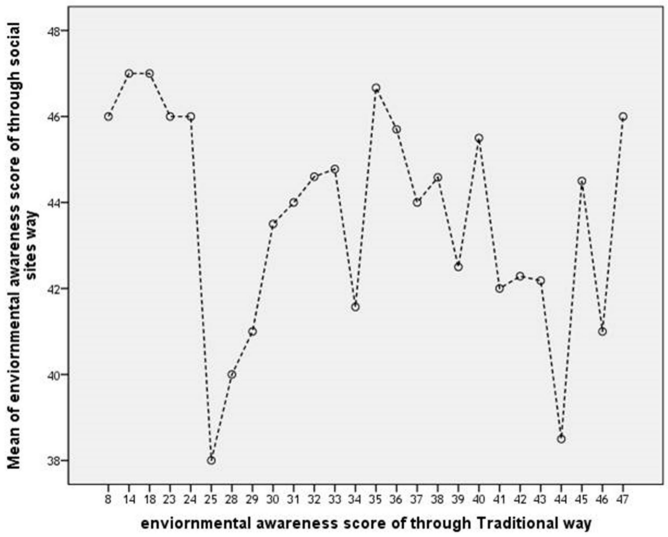


Figure 4.21:Mean plot of Post EA of HSES through SS and TM

Table 4.20: Post EA of HSES through SS and TM

Post Environmental Score of High SES	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Through Traditional	36.12	5.675	6.185	59	0.000	Significant
Through Social Sites	41.50	4.806				

$t_{0.05,\ 59} = 1.671$

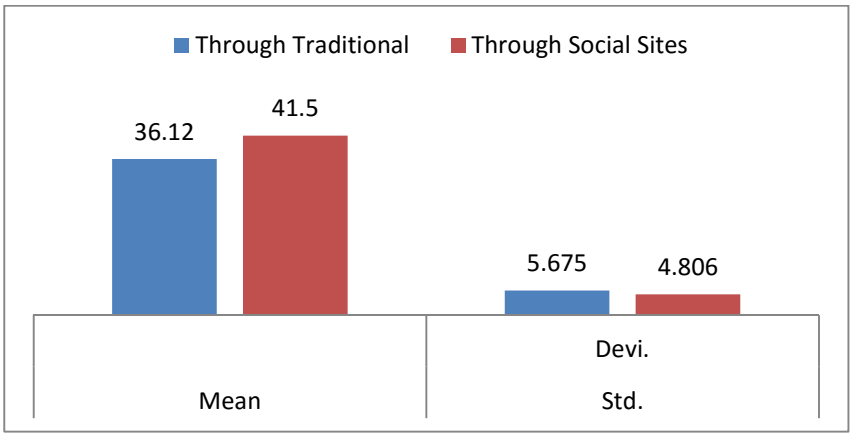


Figure 4. 22: Bar diagram of Post EA of HSES through SS and TM

Findings:

The mean environmental awareness score is 36.12 ± 5.675 for High SES rural & urban pupil-teachers taught through TM and 41.50 ± 4.806 for High SES rural& urban pupil teachers taught through SS. The result is significant with p value ≤ 0.05.The Environmental awareness among the high SES pupil-teachers by SS and TM significantly differs on basis of treatment method.

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM) is rejected. That is due to the fact that social sites are effective medium of developing environmental awareness in high SES pupil-teachers.

Objective 4

To study the post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.

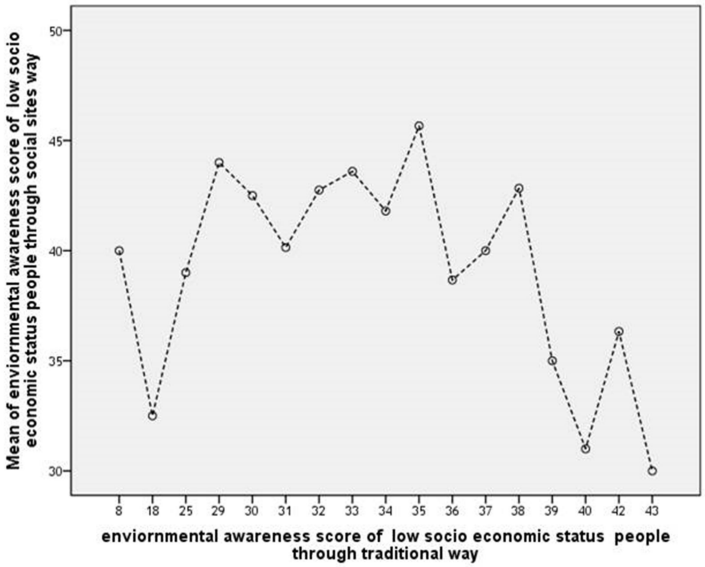


Figure 4.23: Mean plot of Post EA of LSES through SS and TM

Table 4.21: Post EA of LSES through SS and TM

Post Environmental Score of Low SES	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Through Traditional	34.15	5.865	4.747	59	0.000	Significant
Through Social Sites	39.90	6.957				

$t_{0.05, 59}$= 1.671

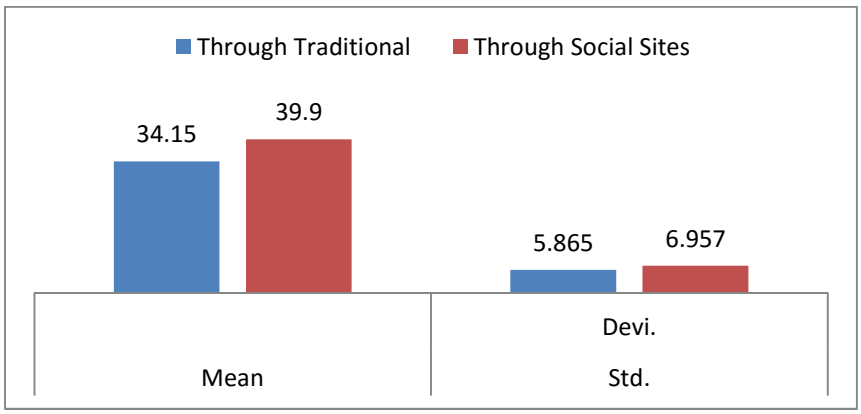


Figure 4.24: Bar Diagram of Post EA of LSES through SS and TM

Findings:

The mean environmental awareness score is 34.15 ± 5.865 for low SES rural &urban pupil-teachers taught through TM and 39.90 ± 6.957 for low SES Rural& urban pupil teachers taught through SS. The result is significant with p value ≤ 0.05.The Environmental awareness among the low SES pupil-teachers by SS and TM significantly differ .on basis of treatment method.

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM) is rejected. That is due to the fact that social sites are effective medium of developing environmental awareness in low SES pupil-teachers.

Objective 5

To study the post environmental awareness in high and low socio economic status rural pupil-teachers taught through social sites and traditional methods.

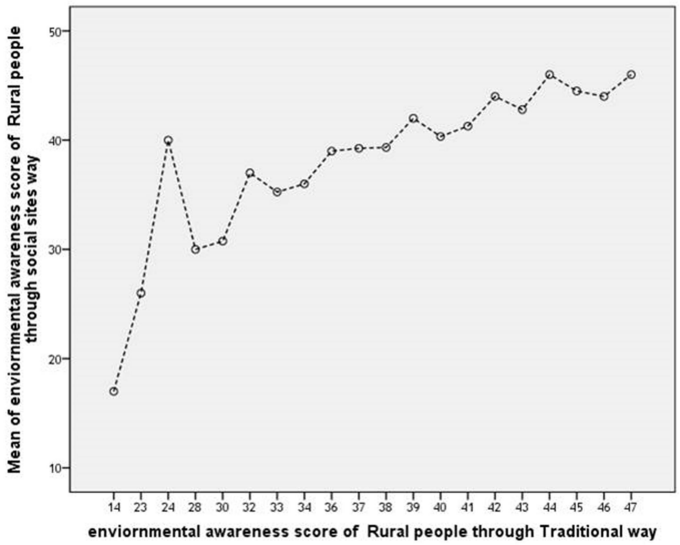


Figure 4.25 : Mean plot of Post EA of Rural through SS and TM

Table 4.22 : Post EA of Rural through SS and TM

Post Environmental Score of Rural Pupil Teachers	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Through Traditional	38.32	6.321	3.477	59	0.001	Significant
Through Social Sites	39.58	5.506				

$t_{0.05, 59}$= 1.671

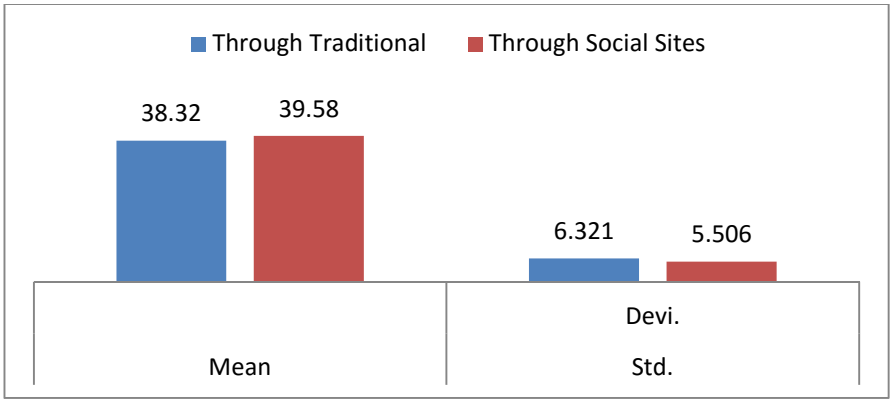


Figure 4.26 Bar Diagram of Post EA of Rural through SS and TM

Findings:

The mean environmental awareness score is 38.32±6.32 for low & high SES rural pupil-teachers taught through TM and 39.58 ±5.506 for low SES pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The Environmental awareness among the low SES pupil-teachers by SS and TM significantly differ .on basis of treatment method.

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness in low & high socio economic status rural pupil-teachers taught through social sites and Traditional Methods (TM) is rejected. That is due to

the fact that social sites are effective medium of developing environmental awareness in low& high SES rural pupil-teachers.

Objective 6

To study the post environmental awareness in high and low socio economic status urban pupil-teachers taught through social sites and traditional methods.

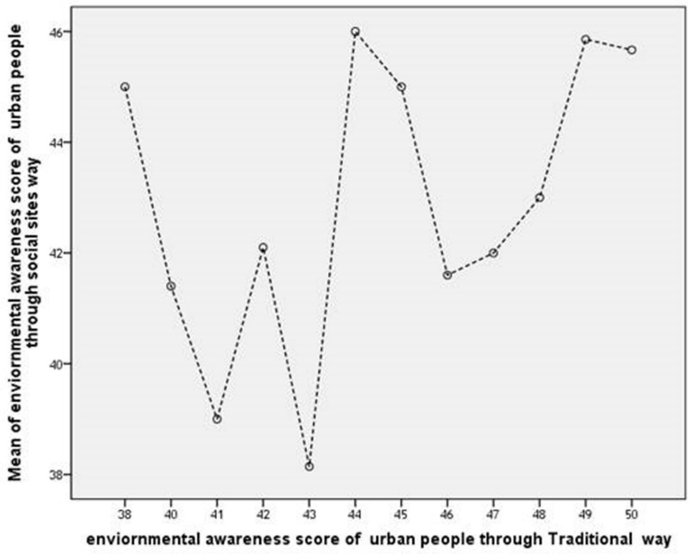


Figure 4.27 Mean plot of post EA of urban through SS and TM

Table 4.23: Post EA of urban through SS and TM

Post Environmental Score of Urban Pupil Teachers	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Through Traditional	42.52	4.735	3.511	59	0.001	Significant
Through Social Sites	44.75	3.117				

$t_{0.05, 59} = 1.671$

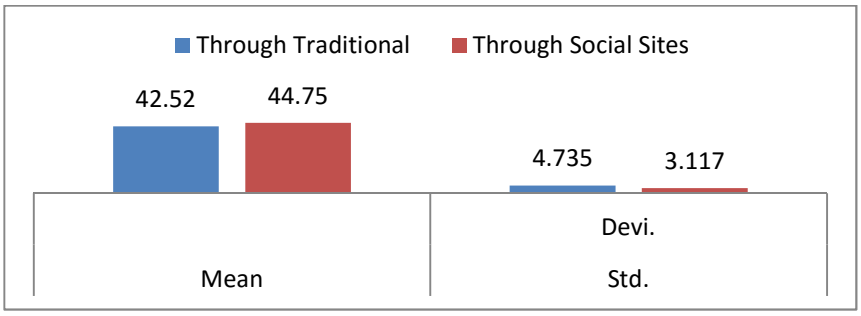


Figure 4.28 Bar Diagram of post EA of urban through SS and TM

Findings:

The mean environmental awareness score is 42.52±4.735 for low & high SES urban pupil-teachers taught through TM and 44.75±3.117 for low& high SES urban pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The Environmental awareness among the low &high SES urban pupil-teachers by SS and TM significantly differ .on basis of treatment method.

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness in low& high socio economic status urban pupil-teachers taught through social sites and Traditional Methods (TM) is rejected. That is due to that social sites are effective medium of developing environmental awareness in low& high SES urban pupil-teachers.

Objective 7

To study the comparison of pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods

Table 4.24: Pre and Post EA in rural (Annova)

	Sum of Squares	**df**	**Mean Square**	**f**	**Significance value**
Between Groups	2375.458	25	95.018	8.344	0.000
Within Groups	1070.467	94	11.388		
Total	3445.925	119			

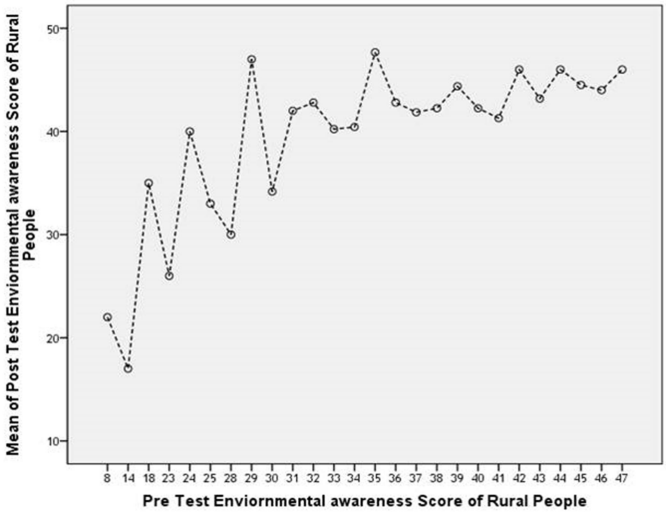


Figure 4.29: Mean plot of Pre and Post EA in rural

Table 4.25: Pre and Post EA in rural

Environmental Score of Rural Pupil Teachers	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	36.23	6.422	11.258	119	0.000	Significant
Post Sites	41.53	5.381				

$t_{0.05,\ 119} = 1.658$

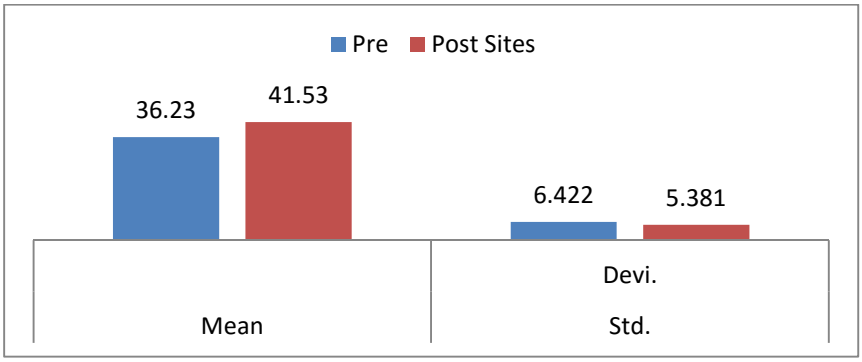


Figure 4.30: Bar Diagram of Pre and Post EA in rural

Findings:

The mean of pre environmental awareness score is 36.23±6.42 for rural pupil-teachers taught through TM &SS and41.53±5.38 for post environmental awareness of rural pupil- teachers taught through TM & SS. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the

pupil-teachers by SS and TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of rural pupil -teachers taught through social sites and traditional methods is rejected .Post environmental awareness increased in rural pupil-teachers due to the use of SS in instructional method.

Objective 8

To study the comparison of pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods

Table 4.26: Pre and Post EA in urban (Annova)

	Sum of Squares	df	Mean Square	f	Significance value
Between Groups	1144.821	21	54.515	5.901	0.000
Within Groups	905.304	98	9.238		
Total	2050.125	119			

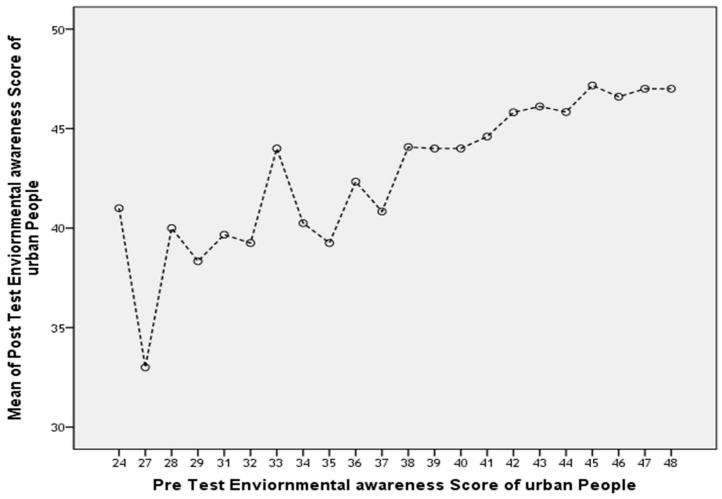


Figure 4.31: Mean plot of Pre and Post EA in urban

Table 4.27: Pre and Post EA in urban

Environmental Score of Urban Pupil Teachers	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	39.11	5.345	12.502	119	0.000	Significant
Post Sites	43.63	4.151				

$t_{0.05,\ 119} = 1.658$

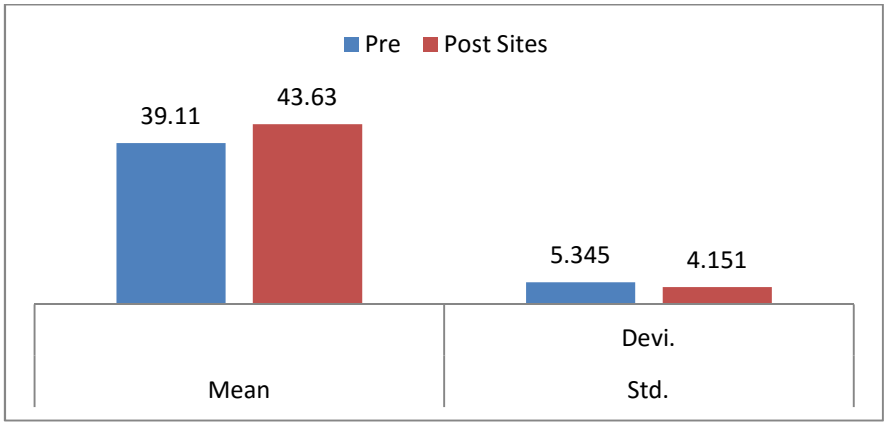


Figure 4.32 : Bar Diagram of Pre and Post EA in urban

Findings:

The mean of pre environmental awareness score is 39.11±5.34 for urban pupil-teachers taught through TM &SS and43.63±4.151 for post environmental awareness of urban pupil- teachers taught through TM & SS. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the urban pupil-teachers by SS and TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of urban pupil -teachers taught through social sites and traditional methods is rejected .Post environmental awareness increased in urban pupil-teachers due to the use of SS in instructional method.

Objective 9

To study the comparison of pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods

Table 4.28 : Pre and Post EA of High SES

Environmental Score of High SES	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	38.81	5.893	3.939	119	0.000	Significant
Post	41.89	5.472				

$t_{0.05,\ 119} = 1.658$

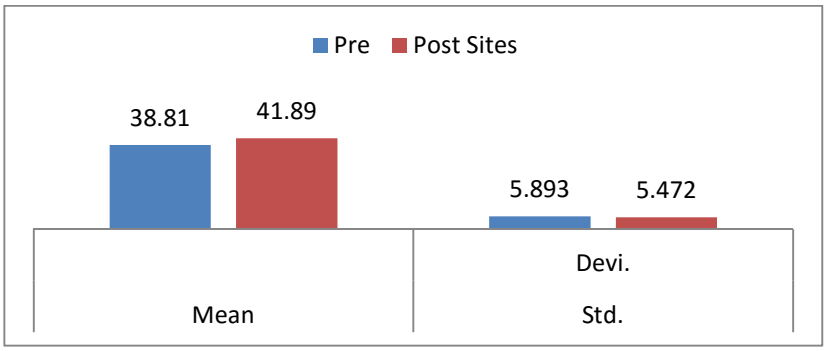


Figure 4.33: Bar Diagram of Pre and Post EA of High SES

Findings:

The mean of pre environmental awareness score is 38.81 ± 5.893 for HSES pupil-teachers taught through TM &SS and41.89±5.472for post environmental awareness of HSES pupil- teachers taught through TM & SS. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the HSES pupil-teachers by SS and TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of HSES pupil -teachers taught through social sites

and traditional methods is rejected .Post environmental awareness increased in HSES pupil-teachers due to the use of SS in instructional method.

Objective 10

To study the comparison of pre and post environmental awareness of Low socio economic status pupil-teachers taught through social sites and traditional methods

Table 4.29: Pre and Post EA of Low SES

Environmental Score of Low SES	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	36.53	6.053	9.891	119	0.000	Significant
Post	43.26	4.186				

$t_{0.05,\ 119} = 1.658$

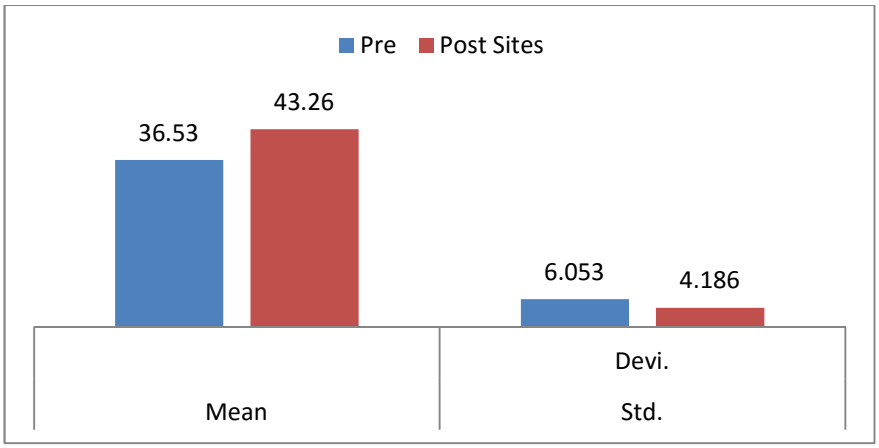


Figure 4.34: Bar Diagram of Pre and Post EA of Low SES

Findings:

The mean of pre environmental awareness score is 36.53±6.053 for LSES pupil-teachers taught through TM &SS and 43.26±4.186 for post environmental awareness of LSES pupil- teachers taught through TM & SS. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the LSES pupil-teachers by SS and TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of LSES pupil -teachers taught through social sites and traditional methods is rejected .Post environmental awareness increased in LSES pupil-teachers due to the use of SS in instructional method

Objective 11

To study the comparison of pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.

Table 4.30: Pre and Post Environmental awareness (Annova)

	Sum of Squares	df	Mean Square	f	Significance value
Between Groups	566.751	27	20.991	.857	.673
Within Groups	5193.899	212	24.500		
Total	5760.650	239			

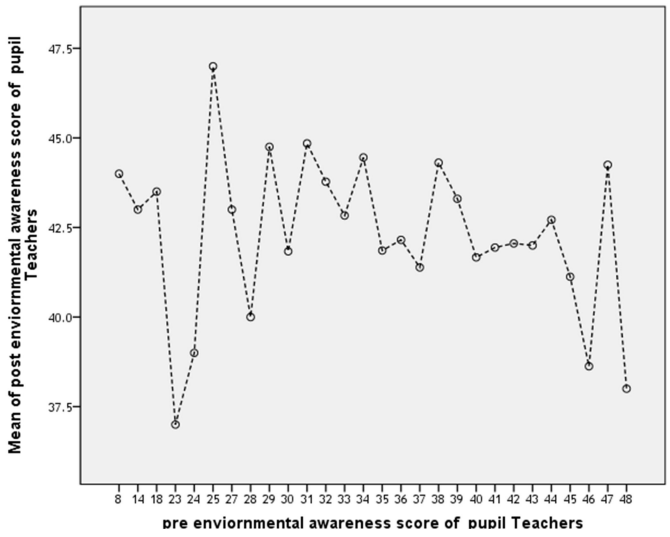


Figure 4.35: Mean plot of Pre and Post Environmental awareness

Table 4.31: Pre and Post Environmental awareness

Environmental Score	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	37.67	6.069	4.393	239	.000	Significant
Post	39.93	6.544				

$t_{0.05,\ 239} = 1.64$

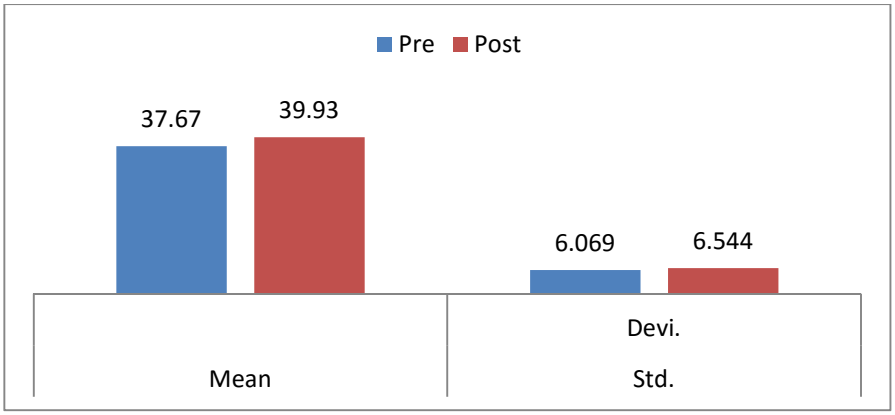


Figure 4.36: Bar Diagram of Pre and Post Environmental awareness

Findings:

The mean of pre environmental awareness score is 37.67±6.069 and 39.93±6.544 for post environmental awareness. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness significantly differs.

Discussion:

The null hypothesis that "There is no significant difference between the pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods" is significant with p ≤ 0.05.hence there is significant difference between the pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.

Objective 12

To study the pre & post EA of low SES rural pupil –teachers taught through traditional methods

Table 4.32: Pre and Post EA of Low SES rural through TM

Environmental Score of Low SES Rural though traditional way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	33.90	6.065	7.780	29	.000	Significant
Post	43.80	3.123				

$t_{0.05,\ 29} = 1.699$

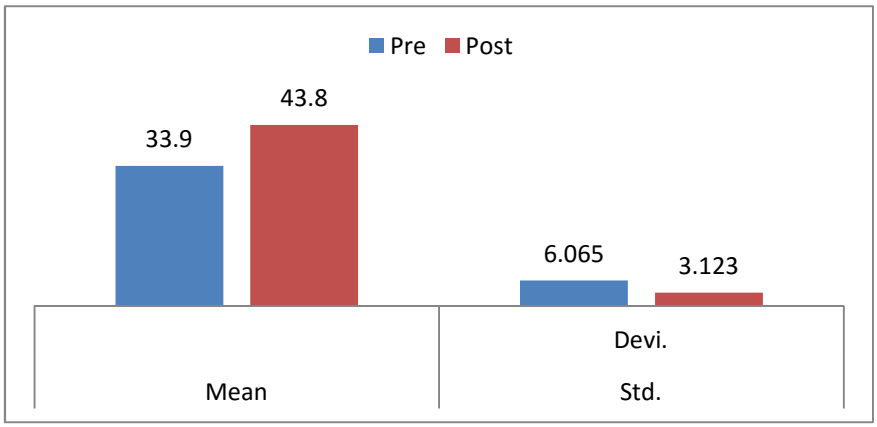


Figure 4.37: Bar Diagram of Pre and Post EA of Low SES rural through TM

Findings:

The mean of pre environmental awareness score is 33.90±6.05 for LSES rural pupil-teachers taught through TM and 43.80±3.123 for post environmental awareness of LSES pupil- teachers taught through TM. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the LSES rural pupil-teachers by TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of LSES rural pupil-teachers taught through traditional methods is rejected .Post environmental awareness increased in LSES pupil-teachers due to the fact that low SES pupil- teachers doesn't give attention on class content but after giving special treatment by class room teaching their environmental awareness developed.

Objective 13

To study the pre & post EA of high SES rural pupil –teachers taught through traditional methods.

Table 4.33: Pre and Post EA of High SES rural through TM

Environmental Score of High SES Rural though traditional way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	34.40	5.751	5.913	29	.000	Significant
Post	43.13	5.619				

$t_{0.05, 29} = 1.699$

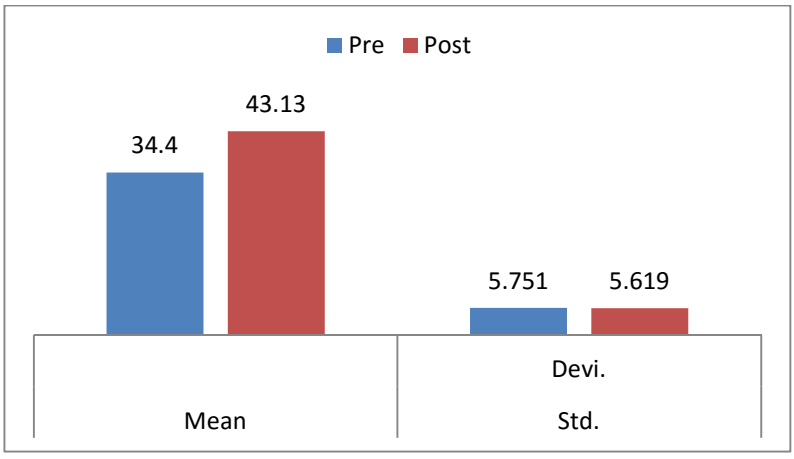


Figure 4.38: Bar Diagram of Pre and Post EA of High SES rural through TM

Findings:

The mean of pre environmental awareness score is 34 .40 ±5.751for HSES rural pupil-teachers taught through TM and 34.40 ± 5.619for post environmental awareness of HSES pupil- teachers taught through TM. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the LSES rural pupil-teachers by TM differ significantly.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of HSES rural pupil-teachers taught through traditional methods is rejected.

Objective 14

To study the post EA of high &low SES rural pupil –teachers taught through traditional methods.

Table 4.34: Post EA of Low, High SES for rural through TM

Post Environmental Score of Rural though traditional way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Low SES	43.80	3.123	7.339	29	.000	Significant
High SES	34.40	5.751				

$t_{0.05,\ 29} = 1.699$

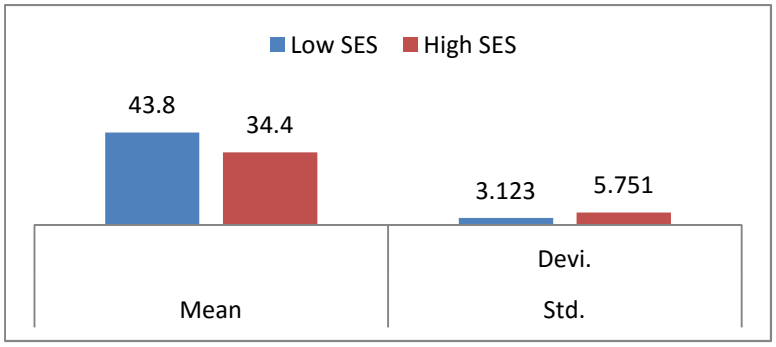


Figure 4.39: Bar Diagram of Post EA of Low, High SES for rural through TM

Findings:

The mean of post environmental awareness score is 43.80±3.123 for LSES rural pupil-teachers taught through TM and34.40 ±5.751 for post environmental awareness of HSES pupil- teachers taught through TM. The result is significant with p value ≤ 0.05.The post environmental awareness among the LSES &HSES rural pupil-teachers by TM significantly differ .

Discussion:

The null hypothesis that there is no significant difference between post environmental awareness of LSES &HSES rural pupil-teachers taught through traditional methods is rejected .Post environmental awareness increased in LSES pupil-teachers comparison to HSES due to the fact that low SES rural pupil-teachers are more linked with environment.

Objective 15

To study the pre EA of high &low SES rural pupil –teachers taught through methods.

Table 4.35: Pre EA of Low, High SES for rural through TM

Pre Environmental Score of Rural though traditional way	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Low SES	33.90	6.065	0.374	29	0.711	Not Significant
High SES	34.40	5.751				

$t_{0.05, 29} = 1.699$

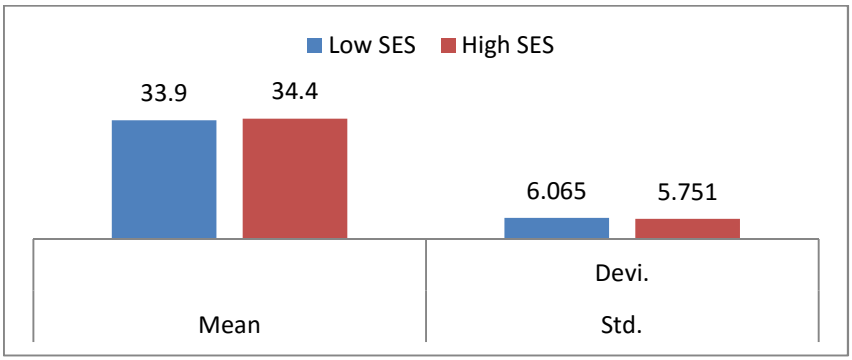


Figure 4.40: Bar Diagram of Pre EA of Low, High SES for rural through TM

Findings:

The mean of pre environmental awareness score is33.90±6.065 for LSES rural pupil-teachers taught through TM and34.40 ±5.751 for pre environmental awareness of HSES pupil- teachers taught through TM. The result is not significant with p value ≤ 0.05.The pre environmental awareness among the LSES &HSES rural pupil-teachers by TM not significantly differ .

Discussion:

The null hypothesis that there is no significant difference between pre environmental awareness of LSES &HSES rural pupil-teachers taught through traditional methods is accepted. pre environmental awareness is equal in LSES pupil-teachers and HSES due to the fact that high & low SES rural pupil-teachers get same environment instructions.

Objective 16

To study the post EA of high SES & low SES rural pupil –teachers taught through social sites.

Table 4.36: Post EA of Low, High SES for rural through SS

Post Environmental Score of Rural though Social Sites way	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Low SES	40.20	4.310	0.971	29	0.340	Not Significant
High SES	38.97	6.505				

$t_{0.05,\ 29} = 1.699$

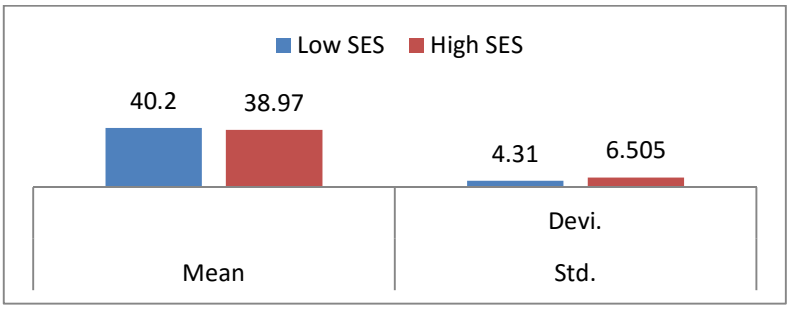


Figure 4.41: Bar Diagram of Post EA of Low, High SES for rural through SS

Findings:

The mean of post environmental awareness score is 40.20±4.310 for LSES rural pupil-teachers taught through SS and38.97 ±6.505 for post environmental awareness of HSES rural pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The post environmental awareness among the LSES &HSES rural pupil-teachers by SS not significantly differ.

Discussion:

The null hypothesis that there is no significant difference between post environmental awareness of LSES &HSES rural pupil-teachers taught through SS is accepted. Post environmental awareness of LSES pupil-teachers &HSES pupil-teachers are equal due to the fact that pre environmental awareness was equal so post EA is also equal between LSES &HSES pupil-teachers.

Objective 17

To study the post EA of rural high SES rural by traditional method & post EA of low SES rural taught through social sites

Table 4.37: Post EA of HSES& TM, LSES & SS for rural

Post Environmental Score of Rural	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
High SES, Traditional	34.40	5.751	5.435	29	0.000	Significant
Low SES, Social Sites	40.20	4.310				

$t_{0.05,\ 29} = 1.699$

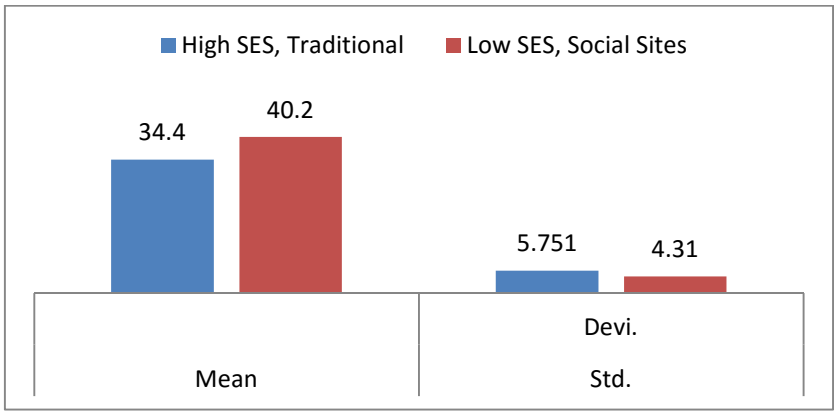


Figure 4.42: Bar Diagram of Post EA of HSES& TM, LSES & SS for rural

Findings:

The mean of post environmental awareness score is34.40±5.751for HSES rural pupil-teachers taught through TM and 40.20±4.310 for post environmental awareness of LSES rural pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The post environmental awareness among the HSES rural pupil-teachers by TM & LSES rural pupil-teachers by SS significantly differ .

Discussion:

The null hypothesis that there is no significant difference between post environmental awareness of HSES rural pupil-teachers by TM &LSES rural pupil - teachers taught through SS is rejected .Post environmental awareness increased in LSES pupil-teachers comparison to HSES due to the fact that low SES rural pupil-teachers are more linked with environment and Social sites played effective role for it.

Objective 18

To study the pre & post EA of low SES urban pupil –teachers taught through traditional methods.

Table 4.38: Pre and post EA of Low SES urban through TM

Environmental Score of Low SES urban though traditional way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	36.73	4.683	8.619	29	.000	Significant
Post	45.20	3.112				

$t_{0.05, 29} = 1.699$

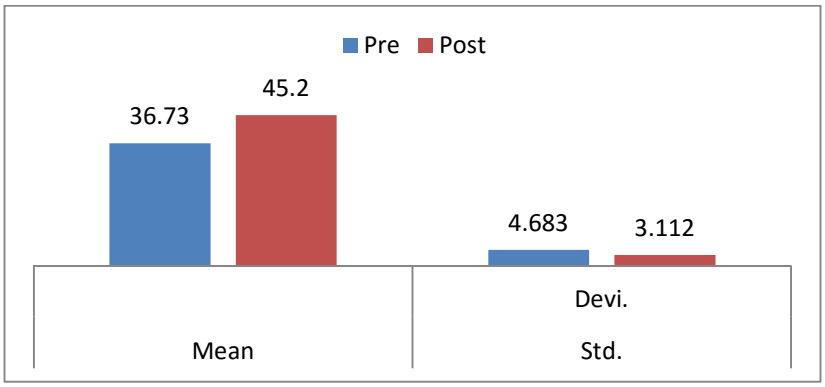


Figure 4.43: Bar Diagram of Pre and post EA of Low SES urban through TM

Findings:

The mean of pre environmental awareness score is 36.73 ±4.683 for LSES urban pupil-teachers taught through TM and 45.20±3.112 for post environmental awareness of LSES pupil- teachers taught through TM. The result is significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the LSES urban pupil- teachers by TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of LSES urban pupil -teachers taught through traditional methods is rejected .Post environmental awareness increased in LSES pupil-teachers due to the fact that low SES pupil- teachers doesn't give attention on class content but after giving special treatment by class room teaching their environmental awareness developed.

Objective 19

To study the pre & post EA of high SES urban pupil –teachers taught through traditional methods.

Table 4.39: Pre and post EA of High SES urban through TM

Environmental Score of High SES urban though traditional way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Pre	37.83	5.133	6.027	29	.000	Significant
Post	44.30	3.109				

$t_{0.05, 29} = 1.699$

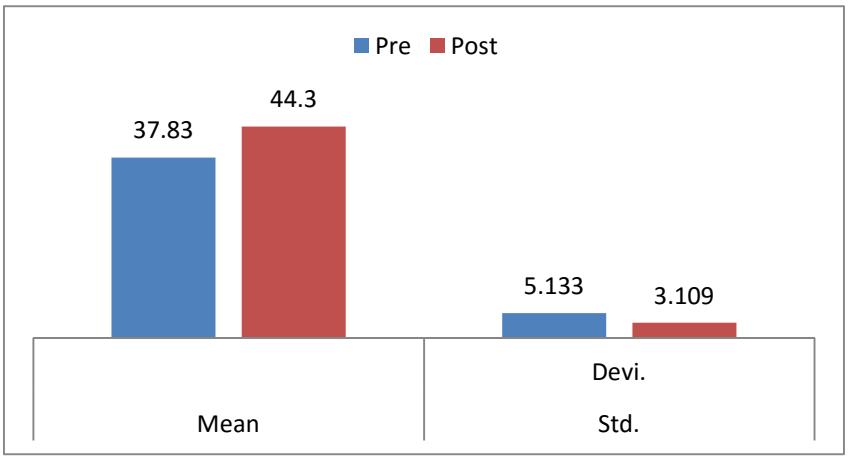


Figure 4.44: Bar Diagram of Pre and post EA of High SES urban through TM

Findings:

The mean of pre environmental awareness score is 37 .83 ±5.133 for HSES urban pupil-teachers taught through TM and44.30±3.109for post environmental awareness of HSES pupil- teachers taught through TM. The result is not significant with p value ≤ 0.05.The pre Environmental awareness and post environmental awareness among the HSES urban pupil-teachers by TM differ significantly.

Discussion:

The null hypothesis that there is no significant difference between pre and post environmental awareness of HSES urban pupil-teachers taught through

traditional methods is rejected. Post environmental awareness increased in HSES pupil-teachers due to the fact that HSES urban pupil- teachers doesn't give attention on class content but after giving special treatment by class room teaching their environmental awareness developed.

Objective 20

To study the post EA of high &low SES urban pupil –teachers taught through traditional methods.

Table 4.40: Low and High SES for post EA of urban through TM

Post Environmental Score of urban though traditional way	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
Low SES	45.20	3.112	1.259	29	.218	Not Significant
High SES	44.30	3.109				

$t_{0.05,\ 29} = 1.699$

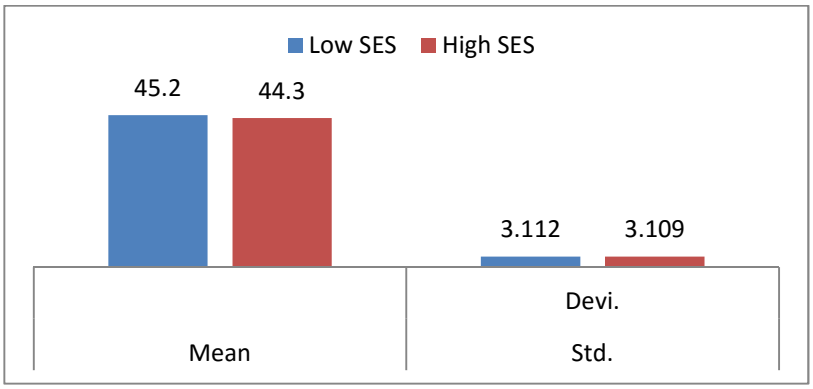


Figure 4.45 : Bar Diag. of Low and High SES for post EA of urban through TM

Findings:

The mean of pre environmental awareness score is 45.20±3.112for LSES urban pupil-teachers taught through TM and 44.30±3.109 for post environmental awareness of HSES pupil- teachers taught through TM. The result is not significant with p value ≤ 0.05.The post environmental awareness among the LSES & HSES urban pupil-teachers by TM not significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre environmental awareness of LSES & HSES urban pupil-teachers taught through traditional methods is accepted. Pre Environmental awareness of urban pupil – teachers doesn't depend on their SES.

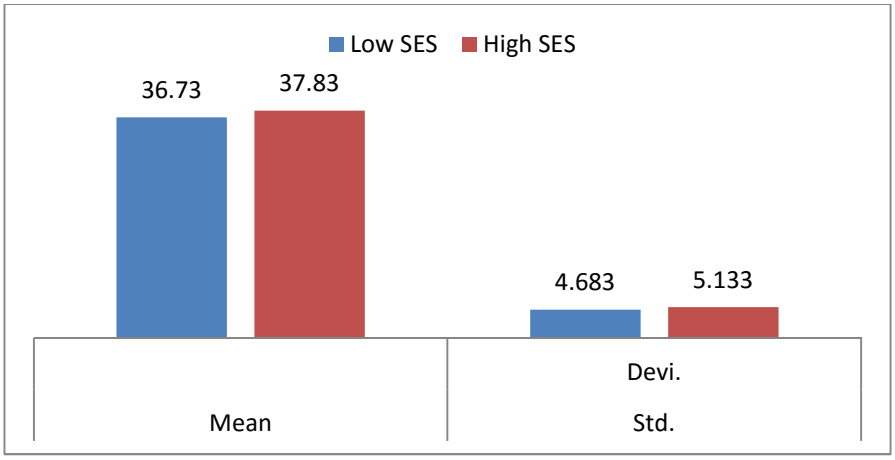
Objective 21

To study the pre EA of high &low SES urban pupil –teachers taught through traditional methods.

Table 4.41: Low and High SES for pre EA of urban through TM

Pre Environmental Score of urban though traditional way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Low SES	36.73	4.683	0.840	29	.408	Not Significant
High SES	37.83	5.133				

$t_{0.05,\ 29} = 1.699$



4.46: Bar Diag. of Low and High SES for pre EA of urban through TM

Findings:

The mean of pre environmental awareness score is 36.73±4.683 for LSES urban pupil-teachers taught through TM and37.83±5.133 for pre environmental awareness of HSES pupil- teachers taught through TM. The result is not significant with p value ≤

0.05.The pre environmental awareness among the LSES & HSES urban pupil-teachers by TM not significantly differ.

Discussion:

The null hypothesis that there is no significant difference between pre environmental awareness of LSES &HSES urban pupil -teachers taught through traditional methods is accepted. Pre Environmental awareness of urban pupil – teachers doesn't depend on their SES.

Ojective 22

To study the post EA of high SES & low SES urban pupil –teachers taught through social sites.

Table 4.42: Low and High SES for post EA of urban through SS

Post Environmental Score of urban though Social Sites way	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Low SES	43.83	4.434	2.191	29	.037	Significant
High SES	41.17	4.728				

$t_{0.05,\ 29} = 1.699$

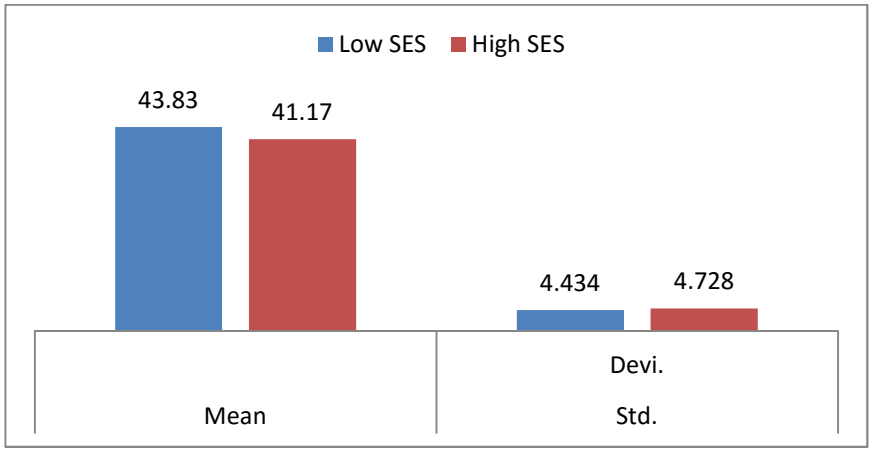


Figure 4.47 Bar Diag. of Low and High SES for post EA of urban through SS

Findings:

The mean of post environmental awareness score is 43.83±4.434 for LSES urban pupil-teachers taught through SS and 41.17±4.728 for post environmental awareness of HSES urban pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The post environmental awareness among the LSES &HSES urban pupil-teachers by SS significantly differ.

Discussion:

The null hypothesis that there is no significant difference between post environmental awareness of LSES &HSES urban pupil -teachers taught through SS is rejected .Post environmental awareness increased in LSES pupil-teachers comparison to HSES due to the fact that LSES urban pupil-teachers are more concern about environmental awareness lessons than HSES pupil-teachers. Social sites played effective role for it.

Objective 23

To study the post EA of high SES urban by traditional method & low SES urban taught through social site

Table 4.43: LSES & SS and HSES & TM for post EA of urban

Post Environmental Score of urban	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
High SES, Traditional	44.30	3.109	0.434	29	.667	Not Significant
Low SES, Social Sites	43.83	4.434				

$t_{0.05, 29} = 1.699$

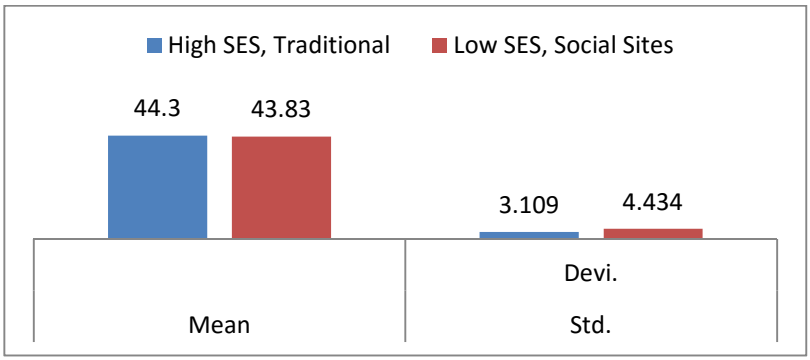


Figure 4.48 Bar Diagram of LSES & SS and HSES & TM for post EA of urban

Findings:

The mean of post environmental awareness score is44.30±3.109 for HSES urban pupil-teachers taught through TM and 43.83±4.434 for post environmental awareness of LSES urban pupil- teachers taught through SS. The result is not significant with p value ≤ 0.05.The post environmental awareness among the HSES urban pupil-teachers by TM & LSES urban pupil-teachers by SS not significantly .

Discussion:

The null hypothesis that there is no significant difference between post environmental awareness of HSES urban pupil-teachers by TM &LSES urban pupil - teachers taught through SS is accepted.

Objective 24

To study the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional methods.

Table 4.44: LSES & TM and HSES & SS for post EA of SS

Post Environmental Score of urban	**Mean**	**Std. Devi.**	**t**	**df**	**Significance Value p (2-tailed)**	**Significance**
High SES, Social	40.67	4.802	2.637	29	0.013	Significant
Low SES, Traditional	36.73	4.683				

$t_{0.05,\ 29} = 1.699$

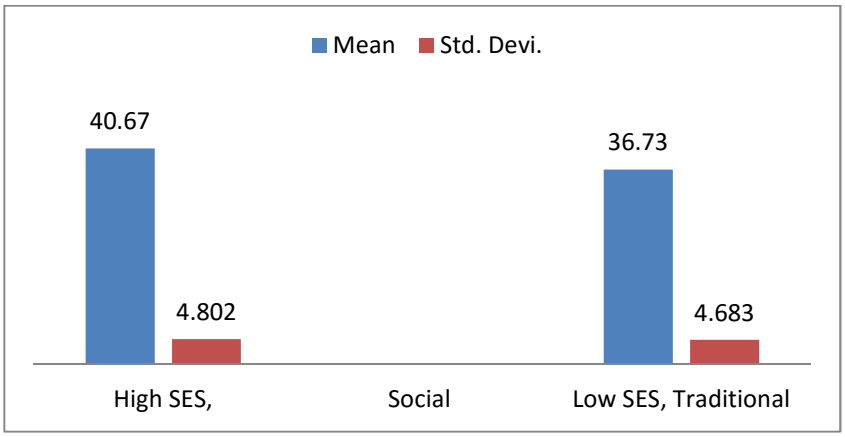


Figure 4.49 Bar Diagram of LSES & TM and HSES & SS for post EA of urban

Findings:

The mean of post environmental awareness score is 40.67±4.802 for HSES pupil-teachers taught through SS and 36.73±4.683 for post environmental awareness of LSES pupil- teachers taught through TM. The result is significant with p value ≤ 0.05.The post environmental awareness among the HSES urban pupil-teachers by SS & LSES urban pupil-teachers by TM significantly differ.

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness of HSES urban pupil-teachers taught through SS& LSES urban pupil-teachers taught through TM is rejected .Post environmental awareness increased in HSES urban pupil-teachers taught by SS comparison to LSES urban pupil-teachers by TM due to the fact that social sites played important role in developing environmental awareness.

Objective 25

To study the post EA of low SES rural pupil-teachers taught through traditional method &Low SES urban pupil-teachers through social sites.

Table 4.45 Rural& TM and Urban & SS for post EA of LSES

Post Environmental Score of Low SES	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Rural, Traditional	33.90	6.065	3.864	29	0.001	Significant
Urban, Social Site	39.53	5.290				

$t_{0.05,\ 29} = 1.699$

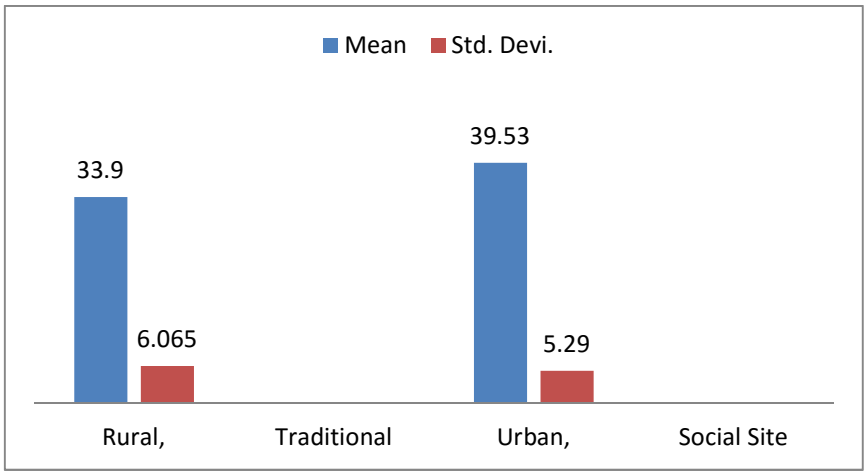


Figure 4.50 Bar Diagram of Rural& TM and Urban & SS for post EA of LSES

Findings:

The mean of post environmental awareness score is33.90±6.065 for rural pupil-teachers taught through TM and 39.53±5.290 for post environmental awareness of urban pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The post environmental awareness among the LSES rural pupil-teachers by TM & urban pupil-teachers by SS significantly differ .

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness of LSES rural pupil-teachers taught through TM & urban pupil-teachers taught through SS is rejected .Post environmental awareness increased

in LSES urban pupil-teachers taught by SS comparison to LSES rural pupil-teachers by TM due to the fact that social sites played important role in developing environmental awareness.

Objective 26

To study the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.

Table 4.46: Rural& TM and Urban & SS for post EA

Post Environmental Score	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Urban, Social	43.63	4.151	9.820	59	0.000	Significant
Rural, Traditional	36.23	6.422				

$t_{0.05,\ 59}$= 1.671

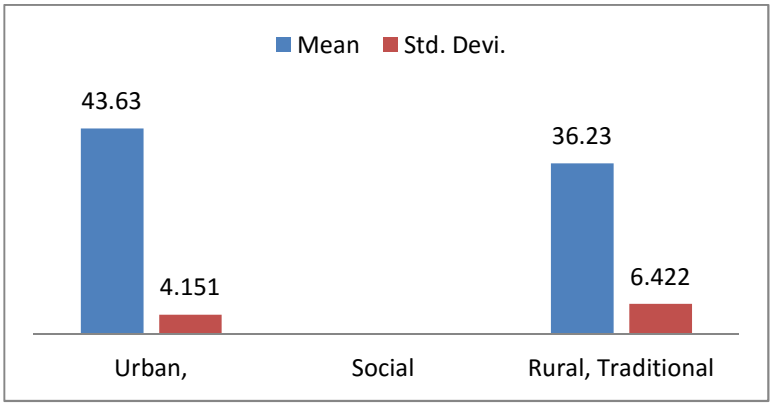


Figure 4.51 Bar Diagram of Rural& TM and Urban & SS for post EA

Findings:

The mean of post environmental awareness score is 43.63±4.151 for urban pupil-teachers taught through SS and 36.23±6.422 for rural pupil- teachers taught through TM. The result is significant with p value ≤ 0.05.The post environmental awareness among the urban pupil-teachers by SS & rural pupil-teachers by TM significantly differ .

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness of urban pupil-teachers taught through SS& rural pupil-teachers taught through TM is rejected .Post environmental awareness increased in urban pupil-teachers taught by SS comparison to rural pupil-teachers by TM due to the fact that social sites played important role in developing environmental awareness.

Objective 27

To study the post environmental awareness of Low SES by TM & High SES by SS.

Table 4.47: LSES& TM and HSES& SS for POST EA of R+U

Post Environmental Score Urban + Rural	Mean	Std. Devi.	t	df	Significance Value p (2-tailed)	Significance
Low SES, Traditional	34.15	5.865	6.593	59	0.000	Significant
High SES, Social	40.10	5.041				

$t_{0.05,\ 59} = 1.671$

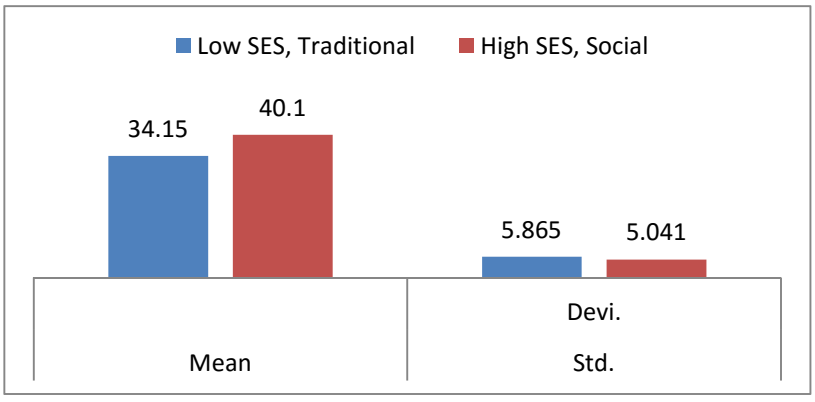


Figure 4.52 Bar Diagram of LSES& TM and HSES& SS for POST EA of R+U

Findings:

The mean of post environmental awareness score is 34.15±5.865 for LSES pupil-teachers taught through TM and 40.10±5.041 for post environmental awareness

of HSES pupil- teachers taught through SS. The result is significant with p value ≤ 0.05.The post environmental awareness among the HSES pupil-teachers by SS & LSES pupil-teachers by TM significantly differ .

Discussion:

The null hypothesis that there is no significant difference of post environmental awareness of HSES pupil-teachers taught through SS& LSES pupil-teachers taught through TM is rejected .Post environmental awareness increased in HSES pupil-teachers taught by SS comparison to LSES pupil-teachers by TM due to the fact that social sites played important role in developing environmental awareness.

4.7 Concluding statement:

This chapter deals with the data analysis & interpretation of data by tabular form, pie charts &bar diagrams. Result has been found by t – test & ANNOVA test.

CHAPTER 5

SUMMARY, MAJOR FINDINGS AND SUGGESTIONS

5.1 Introduction

All the things that surrounds us and effect us directly and indirectly is called environment, Environment can be divided into two parts :

- Natural Environment
- Man made Environment

Environment and human being are correlated. We cann't live without environment. Living being cannot think its existence without environment. Human being had very much important connection with environment. Trees were related with religion Tulsi, Peepal, Barged ,Banana trees were worshiped by every mankind

Rivers were also worshiped in form of god.

After 19th century man third eye of greed opened and he start degrading the environment. Scientific and technological revolution has resulted drastic change in the environment leading to environmental degradation and crisis. As a result environmental problems of global magnitude including population explosion, energy resources and utilization, the provision of food supplies, exploitation of raw materials, global warming ,degradation of agriculture land, extinction of wildlife species, acid rain, ozone layer depletion, air pollution (increase in number of automobiles industries.) are disturbing ecological balance in the environment.

There is need of collective thinking, will and effort to save environment. Effective implementation of environmental management and conservation programmes depends on education, development of awareness and training in the relevant areas. School, colleges can play important role for it. .Pupil-teachers are teacher of future generation. Today's era is internet era. Social sites are used by most of students. Researcher tried to know by experimental method that can social sites become effective medium to developing environmental awareness between pupil-teachers after considering their background and socio economic status.

5.2 Research summary

The environmental damage already inflicted due to alarming on-going population explosion, rapid movement towards urbanization and industrialization, increasing needs of energy and fast scientific and technological advancement cannot be reversed unless there is collective thinking, will and effort. These call for public awareness and participation for bringing about an attitudinal change and finally restricting further damage to the environment. Effective implementation of environmental management and conservation programmes depends on education, awareness raising and training in the relevant areas. Without an understanding of how to conserve natural resources and the compelling need to do so, few people would be motivated to participate actively in programmes on environmental conservation, Environment education and awareness thus assume critical importance.

Each of us has a role to play in improvement of our environment. We should not forget that the environment is nothing but an larger form of the individual. Land, air and water are complex interrelated system on earth. Even if one is affected, the effects are reflected on the others, We all belong to the earth; the earth does not belong to us. Therefore, it is need of hour to conservation, maintenance of ecological balance and resource utilization.

Environmental education and environmental awareness look alike but there is a waste difference. The meaning of environmental awareness is-

- To understand the natural resources and its importance uses to help the community.
- Physical environment, vegetation, wild animals and human's interrelationships is to be developed and understood for dependence.
- To start the activities collectively or personally to develop the social culture and economical values.
- To know the human materials, places, time and resources under environment.
- To know the methods and dimension's of an environmental resources and its effective usages to develop and increase the social, economical and cultural values.

5.2.1 Need of environmental awareness:

Today environment awareness is need of hour by considering the following points-

- All the major resources in the country are in grave danger of irreparable damage
- A society can't survive if its natural resources are rendered unfit for use by its people.
- Environmental problems like air pollution water pollution, radioactive pollution in land degradation are increasing with time.
- Global warming, Ozone depletion, acid rains are other problem of need to think.
- To develop awareness among children, student and in society about environment.

Therefore it is essential requirement of environmental awareness.

5.2.2Methods of Environmental awareness –

Environmental awareness job is an important task. In view of Indian population, cultural and geographical circumstances, it is an extensive task. Its methods are of the following types-

- **By folk drama and tradition** –Folk drama and tradition, folk songs etc are the few medium to educate about environment.
- **By Scout guide, NCC cadets**-Plantation, cleaning of waters reservoirs, and lakes, cleanliness of land are the program to be organized by scout guide and NCC cadets to improvise the awareness among the people.
- **By Exhibitions and competitions** –By organizing the plantation programmes, the knowledge of environment related energy, on tradition sources, exhibitions, competitions etc.
- **By communication means**- Public awareness about environment is now a days done by the means of communications like –radio, television, science and general knowledge books, magazine.

- **By government and non government organization** –by organizing the environmental programs for public awareness by government and non government organization –Environmental department, science and technology department , local agencies , arrange or organize the plantation program time to time.
- **By meetings** – By arranging meetings time to time with rural representative, teachers, students and local industrialist.

Social sites can be good source of environmental education.

- **Social sites**- Social network is a broad term used to show the blogs, user created videos. A social networking is an online service, platform or site that focuses on creating n reflecting of social relations among people who share interest's n activities. Social networking involves organization together or grouping among people. Many social networking sites are being used in developing environmental awareness but the opportunities that social networking sites provide for developing environmental awareness are yet to fully utilized. They can be used to promote good environmental practice, share idea of best practice, raise awareness about environmental campaigns and in other unforeseen ways. There are many social networking sites being used in higher education and developing awareness towards environment

5.3 Role of Social sites in developing environmental Awareness

Today's students who have grown up in technological environment .They can never know a world without the internet, mobile phones and personal computers. So there is need that teachers and educators should know the need of students and change the teaching learning methods according to them .social networking sites are being used strongly. facebook in every corner(urban &rural areas) of the country .so environmental problems can be solved by utilizing these sites in proper way.

According to many survey on use of social networking it was established that some of the most popular social networking sites is being used in higher education include, Facebook,twitter,linkedin,my space,you tube.

5.3.1. Social media tools for learning

Social media technologies have different type of applications that promote learning. Many of these service are free. These applications encourage collobration, develop informal or formal learning, provides a way to share ideas. These are Audacity (podcasts), elgg (social networking platform), edublog campus (blogs),Goto meeting(interacting webinats and live presentation),colobration tool(collobrative resources),mind meister (mind maps),talk shoe(talk shows),voice thread (multimedia presentation)

5.3.2Educational implication of social media in education

Social sites are very vast medium to engage and participate students on a global level. Social sites can create effective role in teaching learning process that encourage students to be critical thinker, communicator and problem solver in collaborative environment. Social sites are helpful in education in many ways.

- social engagement and experience
- social sites are active source of learning
- Social learning.
- student can use their time outside of class in better way
- Reach more students and encourage discussions
- It helps student to decide their professional carrier
- Develop contacts

5.3.3Facebook as a social media:

Facebook is most preferred and famous among students, teachers and general people. After Review of literature researcher found it is very important site for developing environmental awareness so facebook is taken by researcher with prospective of research.

Facebook is very useful medium to developing environmental awareness. At present facebook is the second most trafficked social media site on the world. It was first founded by Mark Zuckerberg in 2004. It is interactive site allowing visitors to leave comment, message on the blogs. Its interactivity distinguishes it from other social sites. It connect people together and generate the web itself. It gives opportunity to users to select their own privacy setting and choose who can see

specific part of their profile. It provide facility to make community and receive fast, quick respond to feed back

Researcher was already aware about facebook operation. She created a page named “Environment Awareness by Anju Gupta” on his facebook profile. He instructed to join the students of B.Ed. colleges (Experimental Group)

Researcher posted the various materials like texts ,photograph on facebook page on the topic of environmental awareness.

Many example are available in literature that facebook is being used as instructional tool. It is becoming useful for reading ,online discussion and student of class get benefit of their peer’s who generally don’t participate in class discussion and to cover topics which is not possible to complete in classroom teaching respect to lack of time.

5.3.4 Environment awareness and facebook methods of instruction:

Facebook can be used as a medium to get students engaged in easy environmental practises.It can be used uploading photos of environmental activities, share interesting stories on environmental campaigns, sharing photos of people doing environmental activities and in sharing environmental posters . Facebook have gone beyond personal use and it has open good opportunities for people and organization to provide all kind of information. Facebook has become important for creating awareness of environmental conservation. Environmental problems have worsened the environmental condition of the world that can be addressed now with sustainable solutions. Promotion of idea of sustainable development has become a goal of not only government and NGO but it also reflected in activities of social campaigns on social sites(facebook) . This kind of activity has helped to raise awareness on environmental issues and engage broad audience in environmental campaigns. Facebook has reached every corner of life and it can fully utilize for good environmental practices, share ideas of environmental conservation and raise awareness about environment.

Facebook can be used for campaigning of tree plantation. In May 2018, Uttrakhand government made page on facebook to “ Mission Rispana” It’s main aim

is to motivate people for plantation. Plants were given to children of every school in uttrakhand. Children uploaded their selfie with plantation. Government planned to take report of planted tree: like this the environment issue are being discussed on facebook.

India was global host of 2018 “World environment day with theme “beat plastic pollution”. It’s main aim is to remove plastic till 2022. Different groups on facebook those are concern about environment are providing alternative ways to combat plastic pollution.

Many groups are activating on facebook to aware general people about environment.

- Environmental working group: its charity in Washington, of Columbia it is main mission is to empower to live healthier lives in a healthier environment .It provides practical information that we can use to protect our family and community.
- Indigenous Environment network: Charity in Bemidji, Minnesota IEN’s activities include to protect our sacred sites, land, water ,air ,natural resources, health of both of people and all living things and to build economically sustainable communities.
- Environmental Activities: This is a volunteer group which helps and provides cleaning up the coast at beach, Rubbish into creativity, planting mangroves and snorkeling.

Pages on Facebook

- Environment Science Techniques: For environmental scientist and specialist. It being information and updated from the world of environmental science.
- Environmental update: It provides environment updates. Its mission is green Mumbai is an initiative to plant 1 crore trees in Mumbai and environmental updated, environmental news updated, environmental law updates, renewable and environmental.

- Environmentalist foundation of India: Environmental conservation organization in Chennai. It volunteers towards pressing and restoring natural ecosystem for love, health and happiness of all life form. They collaborate with a global network of likeminded volunteers to cultivate environmental consciousness and desire to give back to mother.

5.4Variable Factors affecting Environmental awareness

Environmental awareness is depending on so many independent variables. Researcher has taken some independent variable in research Following. independent variables are affecting environmental awareness :

- Socio economic status
- Background (rural & urban)pupil-teachers
- Treatment methods(social sites and traditional

5.5 Justification of research

If any research is investigated justify the problem of research is essential to prove the importance, significance and nature of problem. It is important to find out the use of research in education field.

Earth is the only planet on which life is found and it has limited natural resources. There is need to use these resources in sustainable way. If at this time we don't give attention to environmental problems then one day our upcoming generation's future will go in darkness. Environment has been shown dangerous picture of future. Now it's need of hour that everyone should aware of environmental problems.

So, the environment protection and preservation has been an urgent need of hour. This can only be possible if we have a right type of attitude towards such issues and if we have proper awareness to related matters. It is widely accepted that the development of such awareness and attitude can be possible through environment education.

Education is an important social instrument and mean, which act as a catalyst in improvement of different aspects of life, knowledge, awareness, skill, values and attitude acquired through education help once to lead a desired quality of life. In

order to protect and conserve emphasis has been given to environmental education in both formal and non formal system of education.

In formal education, teaching of environment education depends not only on curriculum and other facilities provided to student but also quality of teachers in terms of knowledge, awareness, attitude and skills relating to environment among students. Urban and rural women pupil teachers are teachers of future generation. So they should be aware of environmental aspects only then they can make aware future generation aware about environmental problems and their solutions .If teacher is technically aware then he can give its benefits to students also.

Today's society is technical. A student cannot know the world without internet. Social sites are becoming integral part of their life .Most of students are using social sites for chating, video talking, news and for sharing pictures. According to Bozkurt Aras(2017)The social sites provides opportunity for communication and interaction especially for distance education students who are separated from teachers, learning resources and other students in terms of time and space. Educators in higher education have begun exploring alternative means of instruction including social communication tools designed for easy use, instructional freedom and constant online discussions (Brady, HOLcombs Smith 2010) . The uses of social networks have increased exponentially in recent years although there is some controversy over the imbedded nature of social media in education setting (Chang Yu &LU 2015).

As review of literature most accessible social site is face book and it is becoming important mean to develop knowledge and awareness about environment. Many environmental awareness groups are on social sites specially facebook that are directly or indirectly aware people about environment by pictures, videos and text .Most of students and teachers are using facebook . Facebook may become effective tool for developing environmental awareness in pupil-teachers. After considering outlook of today's society and increasing environment problems, interest developed in researcher's mind to do research on this topic.

Although several studies have been done on use of a social networking sites (facebook) as instructional tool for many subjects and environmental awareness.

Most of the research studies have undertaken in western countries on developing environmental awareness through social sites (facebook) .but in India only few studies have taken for it .Studies related to environmental awareness is limited. Specially in Rajasthan and Uttrakhand No studies have been undertakenon basis of socioeconomic status and background of pupil- teachers to developing environmental awareness through social sites..

Some questions are coming in researcher's mind, which are as follows-

- Are the rural pupil- teachers aware of environmental problems?
- Are the urban pupil teachers aware of environmental problems?
- What is the attitude of rural pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of urban pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of low socio economic status pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of high socio economic status regarding environmental awareness through social sites?
- What is the attitude of low socio economic status urban pupil-teachers regarding environmental awareness through social s
- What is the attitude of high socio economic status urban pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of high socio economic status rural pupil-teachers regarding environmental awareness through social sites?
- What is the attitude of low socio economic status rural pupil-teachers regarding environmental awareness through social sites

To know the answers of these question researcher has taken this problem for study. This study is very new related to developing environmental awareness in pupil-teachers through social networking sites.

This study is necessary to explore most effective path way for developing knowledge, attitude and behaviour towards environment in pupil-

teachers and it can be useful to test social networking sites for developing environmental awareness.

5.6 Problem statement

"A Comparative Study of Environmental Awareness in rural & urban Pupil –Teachers through Social Sites and Traditional methods".

5.7 Objective of research

The proposed study shall be completed to achieve the following objectives:

1. To study the post environmental awareness in pupil-teachers taught through social sites and traditional methods.
2. To study the post environmental awareness in high and low socio economic status pupil-teachers taught through social sites and traditional methods
3. To study the post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
4. To study the post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
5. To study the post environmental awareness in high and low socio economic status rural pupil-teachers taught through social sites and traditional methods .
6. To study the post environmental awareness in high and low socio economic status urban pupil-teachers taught through social sites and traditional methods.
7. To study the comparison of pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods
8. To study the comparison of pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. To study the comparison of pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
10. To study the comparison of pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods

11. To study the comparison of pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.
28. To study the pre & post EA of low SES rural pupil –teachers taught through traditional methods.
29. To study the pre & post EA of high SES rural pupil –teachers taught through traditional methods.
30. To study the post EA of high &low SES rural pupil –teachers taught through traditional methods.
31. To study the pre EA of high &low SES rural pupil –teachers taught through traditional methods.
32. To study the post EA of high SES & low SES rural pupil –teachers taught through social sites.
33. To study the post EA of high SES rural by traditional method & post EA of low SES rural taught through social sites
34. To study the pre & post EA of low SES urban pupil –teachers taught through traditional methods.
35. To study the pre & post EA of high SES urban pupil –teachers taught through traditional methods.
36. To study the post EA of high &low SES urban pupil –teachers taught through traditional methods.
37. To study the pre EA of high &low SES urban pupil –teachers taught through traditional methods.
38. To study the post EA of high SES & low SES urban pupil –teachers taught through social sites.
39. To study the post EA of high SES urban pupil-teachers by traditional method & low SES urban pupil-teachers taught through social site
40. To study the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional methods.

41. To study the post EA of low SES rural pupil-teachers taught through traditional method &Low SES urban pupil-teachers taught through social sites.
42. To study the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.
43. To study the post environmental awareness of Low SES by TM & High SES by SS.

5.8 Hypothesis of research

Taking into account the objectives of the proposed study the following hypotheses have been formulated.

12. There is no significant difference of environmental awareness of pupil-teachers taught through social sites and traditional methods.
13. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status pupil -teachers taught through social sites and Traditional Methods (TM).
14. There is no significant difference of post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
15. There is no significant difference of post environmental awareness of low socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
16. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status rural Pupil-teachers taught through social sites and Traditional Method (TM).
17. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status urban Pupil-teachers taught through social sites and Traditional Methods (TM).
18. There is no significant difference between pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods

19. There is no significant difference between pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
20. There is no significant difference between the pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
21. There is no significant difference between the pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods
22. There is no significant difference between the pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.
23. There is no significant difference between the pre & post EA of low SES rural pupil –teachers taught through traditional methods
24. There is no significant difference between the pre & post EA of high SES rural pupil –teachers taught through traditional methods.
25. There is no significant difference between the post EA of high &low SES rural pupil –teachers taught through traditional methods.
26. There is no significant difference between the pre EA of high &low SES rural pupil –teachers taught through traditional methods.
27. There is no significant difference between the post EA of high SES & post EA of low SES rural pupil –teachers taught through social sites.
28. There is no significant difference between the post EA of high SES rural pupil-teachers by traditional method & post EA of low SES rural pupil-teachers taught through social sites
29. There is no significant difference between. the pre & post EA of low SES urban pupil –teachers taught through traditional methods.
30. There is no significant difference between. the pre & post EA of high SES urban pupil –teachers taught through traditional methods.
31. There is no significant difference between the post EA of high &low SES urban pupil –teachers taught through traditional methods.

32. There is no significant difference between the pre EA of high &low SES urban pupil –teachers taught through traditional methods.
33. There is no significant difference between the post EA of high SES & post EA of low SES urban pupil –teachers taught through social sites.
34. There is no significant difference between the post EA of high SES urban by traditional method & post EA of low SES of urban pupil-teachers taught through social sites.
35. There is no significant difference between the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional method.
36. There is no significant difference between the low SES rural pupil-teachers taught through TM & low SES urban pupil-teachers taught through SS.
37. There is no significant difference between the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.
38. There is no significant difference between the post environmental awareness of Low SES by TM & High SES by SS.

5.9 Delimitation of research

The delimitations of proposed study shall be as follows-

- The proposed study will be confined to the rural and urban pupil-teachers of Dehradun city.
- Pupil-teachers of science, arts and commerce will be taken as the sample.
- The proposed study will be also delimited to the topic of "Environmental awareness"

Researcher will be use the internet, audio-visual aids and traditional methods towards developing environmental awareness

5.10 Population& Sample

Approximately 2450 pupil-teachers studying in different B.Ed. colleges (25 nos.) of Dehradun distt . It is the population of pupil - teachers.

Researcher collected 240 samples from 4 training colleges. Sample is divided in 50% rural pupil-teachers and 50% urban pupil-teachers on the basis of their domicile.50% rural and 50% urban.

5.11 Tools applied in Research study

In the present study the researcher has used the following standardized tools to collect data.

1. Socio –Economic Status Scale (urban & rural) Dr. Ashok K.Kalia and Dr.SudhirSahu.

Socio economic status of urban and rural pupil teachers is needed to find out in research .In today's society socio economic status not only depends on salary of person but also on other factors like health ,education ,social cultural components and means of entertainments .Socio economic status scale of Dr. Ashok k. Kalia is designed to measure Status of family in relation to their level of socio-cultural participation, ability to influence mass, level of education, kind of occupation ,financial position health- wellbeing , lifestyle, level of aspiration, kind of gadgets, services and leisure facility that family enjoys. It accomplishes all requirements needed to research.

2 . Environmental Awareness Ability Measure by Dr .Praveen Kumar Jha

Researcher needs to find out environmental awareness of pupil-teachers. Environmental awareness ability measure tool includes causes of pollution, conservation of soil, air, forest, energy conservation, conservation of human health and conservation of wild-life and animal husbandry. It fulfil all requirements for research.

Both scales are standardized and completing research requirement to collect data . So Researcher considered them in research.

5.12 Research method

On the basis of research problem & after review of literature researcher has been taken experimental method for research.

5.13 nalysis process for research study

After administration of tool research used following analysis for research

1.Mean

2.Standered deviation

3. T-test

4.ANNOVA

5.14 Review of literature:

Reported literatures are reviewed across the India and abroad by researcher.

5.15 Results & findings

On the basis of objectives findings of research are as follows.

Objective 1: To study the post environmental awareness in pupil-teachers taught through social sites and traditional methods.

Result

After analysis of data this is concluded that the Environmental awareness of pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that " there is no significant difference of environmental awareness of pupil-teachers taught through social sites and traditional methods'' rejected.

Findings

On the basis of above, result environmental awareness of pupil –teachers increased when they given instructions through social sites. social sites can create effective role in teaching learning process that encourage pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method.

Objective 2: To study the post environmental awareness in high and low socio economic status pupil-teachers taught through social sites and traditional methods.

Result

After analysis of data this is concluded that the Environmental awareness of low and high SES pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "there is no significant difference of environmental awareness of High and Low SES pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness of high SES pupil –teachers increased when they given instructions through social sites & TM. HSES pupil-teachers are more aware about environment.

Objective 3: To study the post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.

Result

After analysis of data this is concluded that The post Environmental awareness in high SES rural and urban pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "there is no significant difference of environmental awareness of High SES rural& urban pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result environmental awareness of high SES rural and urban pupil –teachers increased when they given instructions through social sites. social sites can create effective role in teaching learning process that encourage high SES pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method.

Objective 4 : To study the post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and traditional methods .

Result

After analysis of data this is concluded that the post Environmental awareness in low SES rural and urban pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "there is no significant difference of environmental awareness of low SES rural &urban pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result environmental awareness of low SES rural and urban pupil –teachers increased when they given instructions through social sites. social sites can create effective role in teaching learning process that encourage low SES pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method.

Objective 5: To study the post environmental awareness in high and low socio economic status rural pupil-teachers taught through social sites and traditional methods

Result

After analysis of data this is concluded that The post Environmental awareness in high & low SES rural pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "There is no significant difference of environmental awareness in high &low SES rural pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in high& low SES rural pupil –teachers increased when they given instructions through social sites. social sites can create effective role in teaching learning process that encourage low & high SES rural pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method.

Objective 6: To study the post environmental awareness in high and low socio economic status urban pupil-teachers taught through social sites and traditional methods

Result

After analysis of data this is concluded that the post Environmental awareness in high & low SES urban pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "There is no significant difference of environmental awareness in high &low SES urban pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in high& low SES urban pupil –teachers increased when they given instructions through social sites. social sites can create effective role in teaching learning process that encourage low & high SES urban pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method.

Objective7: To study the comparison of pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods

Result

After analysis of data this is concluded that the comparison of pre & post Environmental awareness of rural pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "There is no significant difference of comparison of pre &post environmental awareness in rural pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in rural pupil –teachers increased comparison to pre environmental awareness. Pre environmental awareness is examined by survey method but after this treatment

was given by social sites &traditional methods as a result post environmental awareness increased in rural pupil-teachers. Treatment methods played important role in developing environmental awareness and specially social sites.

Objective8: To study the comparison of pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods

Result

After analysis of data this is concluded that the comparison of pre & post Environmental awareness of urban pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "There is no significant difference of comparison of pre &post environmental awareness in urban pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in urban pupil –teachers increased comparison to pre environmental awareness. Pre environmental awareness is examined by survey method but after this treatment was given by social sites &traditional methods as a result post environmental awareness increased in urban pupil-teachers. Treatment methods play important role in developing environmental awareness and especially social sites.

Objective 9: To study the comparison of pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods

Result

After analysis of data this is concluded that the comparison of pre & post Environmental awareness of low SES pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "There is no significant difference between pre &post environmental awareness in low SES pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in Low SES pupil –teachers increased comparison to pre environmental awareness. Pre environmental awareness is examined by survey method but after this treatment was given by social sites &traditional methods as a result post environmental awareness increased in Low SES pupil-teachers. Treatment methods played important role in developing environmental awareness and especially social sites.

Objective 10: To study the comparison of pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods

Result

After analysis of data this is concluded that the comparison of pre & post Environmental awareness of high SES pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so null hypothesis that "There is no significant difference of comparison of pre &post environmental awareness in high SES pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in high SES pupil –teachers increased comparison to pre environmental awareness. Pre environmental awareness is examined by survey method but after this treatment was given by social sites &traditional methods as a result post environmental awareness increased in high SES pupil-teachers. Treatment methods played important role in developing environmental awareness and especially social sites.

Objective 11: To study the comparison of pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.

Result

After analysis of data this is concluded that the comparison of pre & post Environmental awareness of rural & urban pupil-teachers taught through social sites and traditional methods are significantly differ on the basis of treatment .so

null hypothesis that "There is no significant difference of comparison of pre & post environmental awareness of rural & urban pupil-teachers taught through social sites and traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in rural & urban pupil –teachers increased comparison to pre environmental awareness. Pre environmental awareness is examined by survey method but after this treatment was given by social sites &traditional methods as a result post environmental awareness increased in all pupil-teachers. Treatment methods played important role in developing environmental awareness and especially social sites.

Objective 12: To study the comparison of pre & post EA of low SES rural pupil –teachers taught through traditional methods

Result

After analysis of data this is concluded that the pre & post Environmental awareness in low SES rural pupil-teachers taught through traditional methods are significantly differ. so null hypothesis that "There is no significant difference of Pre &post environmental awareness in low SES rural pupil-teachers taught through traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in low SES rural pupil –teachers increased when they given instructions through TM. This is due to the fact that low SES rural pupil- teachers doesn't give attention on class content but after giving special treatment by class room teaching their Environmental awareness developed.

Objective 13. To study the pre & post EA of high SES rural pupil –teachers taught through traditional methods

Result

After analysis of data this is concluded that the pre & post Environmental awareness in high SES rural pupil-teachers taught through traditional methods are not significantly differ. So null hypothesis that "There is no significant difference of Pre &post environmental awareness in high SES rural pupil-teachers taught through traditional methods" accepted.

Findings

On the basis of above result, the comparison of pre & post environmental awareness in HSES rural pupil-teachers through traditional method accepted. It is due to the fact that HSES rural pupil-teachers gave attention in class and TM doesn't give very good impact in developing environmental awareness.

Objectives 14: To study the post EA of high &low SES rural pupil –teachers taught through traditional methods.

Result

After analysis of data this is concluded that the Environmental awareness in high & low SES rural pupil-teachers taught through traditional methods are significantly differ. so null hypothesis that "There is no significant difference of the post environmental awareness in high &low SES rural pupil-teachers taught through traditional methods" rejected.

Findings

On the basis of above result, the post environmental awareness in low SES rural pupil-teachers are increased comparison to high SES due to the fact that if special attention is given to LSES pupil-teachers they show good results, but teaching through TM to HSES pupil-teachers doesn't show different result in post environmental awareness.

Objective 15. To study the pre EA of high &low SES rural pupil –teachers taught through traditional methods

Result

After analysis of data this is concluded that the pre Environmental awareness in high & low SES rural pupil-teachers taught through traditional methods are not significantly differ. so null hypothesis that "There is no significant difference of Pre environmental awareness in high &low SES rural pupil-teachers taught through traditional methods" accepted.

Findings

On the basis of above result ,the pre environmental awareness in HSES & LSES rural pupil-teachers are equal taught by traditional method due to the fact that Pre environmental awareness instructions are given in class room is similar.

Objectives 16: To study the post EA of high & low SES rural pupil –teachers taught through social sites.

Result

After analysis of data this is concluded that the post Environmental awareness in high & low SES rural pupil-teachers taught by SS are significantly differ. so null hypothesis that "There is no significant difference of the post environmental awareness in high &low SES rural pupil-teachers taught through social sites" rejected.

Findings

On the basis of above result ,the Post environmental awareness increased in LSES pupil-teachers comparison to HSES due to the fact that low SES rural pupil- teachers are more linked with environment than HSES and Social sites played effective role for it.

Objective 17. To study the post EA of high SES rural pupil-teachers by traditional method & post EA of low SES rural taught through social sites

Result

The post environmental awareness among the HSES rural pupil-teachers by TM & LSES rural pupil-teachers by SS significantly differ .So null hypothesis that "There is no significant difference between post environmental awareness of

HSES rural pupil-teachers by TM &LSES rural pupil -teachers taught through SS "is rejected.

Findings

On the basis of above result, Post environmental awareness increased in LSES pupil-teachers comparison to HSES due to the fact Social sites played effective role for it. social sites can create effective role in teaching learning process that encourage low SES rural pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom methods.

Objective 18 To study the pre & post EA of low SES urban pupil –teachers taught through traditional methods

Result

After analysis of data this is concluded that the pre & post Environmental awareness in low SES urban pupil-teachers taught through traditional methods are significantly differ. so null hypothesis that "There is no significant difference of Pre &post environmental awareness in low SES urban pupil-teachers taught through traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in low SES urban pupil –teachers increased when they given instructions through TM. This is due to the fact that low SES urban pupil- teachers don't give attention on class content but after giving special treatment by class room teaching their environmental awareness developed.

Objective 19.To study the pre & post EA of high SES urban pupil –teachers taught through traditional methods

Result

After analysis of data this is concluded that the pre & post Environmental awareness in high SES urban pupil-teachers taught through traditional methods are significantly differ. so null hypothesis that "There is no significant difference of Pre

&post environmental awareness in high SES urban pupil-teachers taught through traditional methods" rejected.

Findings

On the basis of above result the post environmental awareness in high SES urban pupil –teachers increased when they given instructions through TM. This is due to the fact that high SES urban pupil- teachers doesn't give attention on class content. They believe in use & throw, but after giving special treatment by class room teaching their environmental awareness developed.

Objective20: To study the post EA of high &low SES urban pupil –teachers taught through traditional methods.

Result

After analysis of data this is concluded that the post Environmental awareness in high & low SES urban pupil-teachers taught through traditional methods is not significantly differ. so null hypothesis that "There is no significant difference of post environmental awareness in high &low SES urban pupil-teachers taught through traditional methods" accepted.

Findings

On the basis of above result the post environmental awareness in high &low SES urban pupil –teachers are equal when they given instructions through TM. This is due to the fact that Post Environmental awareness is equally developed in High &low SES urban pupil –teachers taught through traditional method.

Objective21. To study the pre EA of high &low SES urban pupil –teachers taught through traditional methods

Result

After analysis of data this is concluded thatThe pre Environmental awareness in high& low SES urban pupil-teachers taught through traditional methods are not significantly differ. so null hypothesis that "There is no significant difference of Pre environmental awareness in high &low SES urban pupil-teachers taught through traditional methods" accepted.

Findings

On the basis of above result, the pre environmental awareness in HSES& LSES urban pupil-teachers are equal taught by traditional method due to the fact that Pre environmental awareness instructions are given in class room is similar.

Objective 22 : To study the post EA of high SES urban pupil-teachers by traditional method & low SES urban pupil-teachers taught through social sites

Result

The post environmental awareness among the HSES urban pupil-teachers by TM & LSES urban pupil-teachers by SS are not significantly differ .So null Hypothesis that "there is no significant difference between post environmental awareness of HSES urban pupil-teachers by TM &LSES urban pupil –teachers taught through SS" accepted.

Findings

On the basis of above result, Post environmental awareness in LSES urban pupil-teachers by SS &HSES urban pupil-teachers by TM are equal due to the fact that LSES urban pupil are more aware about environmental awareness when they are taught by SS

Objective 23: To study the post EA of High SES urban pupil-teachers taught through TM& Low SES urban pupil-teachers through SS

Result

After analysis of data this is concluded that the post Environmental awareness of HSES urban pupil-teachers taught by TM& LSES urban pupil-teachers taught by SS are not significantly differ. So null hypothesis that "There is no significant difference of post EA of High SES urban pupil-teachers taught through TM & Low SES urban pupil-teachers through SS" accepted.

Findings

On the basis of above result, the Post environmental awareness of High SES urban pupil-teachers taught by TM and Low SES urban pupil-teachers taught by SS is accepted . This is due to the fact that when LSES pupil- teachers taught by SS their

EA equals to HSES pupil teachers taught by TM. So SS played effective role in developing EA of LSES pupil-teachers.

Objective 24: To study the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional method

Result

After analysis of data this is concluded that the post Environmental awareness of HSES urban pupil-teachers taught by SS& LSES urban pupil-teachers taught by TM are significantly differ. so null hypothesis that "There is no significant difference of post EA of High SES urban pupil-teachers taught through SS & Low SES urban pupil-teachers through TM" rejected.

Findings

On the basis of above result ,the Post environmental awareness in HSES urban pupil-teachers taught by social sites increased comparison to LSES rural pupil-teachers taught by TM . social sites can create effective role in teaching learning process that encourage HSES urban pupil-teachers to be critical thinker ,communicator and problem solver of environmental problems comparative to traditional classroom method in LSES rural pupil-teacher.

Objective 25: To study the post EA of low SES rural pupil-teachers taught through traditional method &Low SES urban pupil-teachers through social sites.

Result

After analysis of data this is concluded that the post Environmental awareness of LSES rural pupil-teachers taught by TM& LSES urban pupil-teachers taught by SS are significantly differ. so null hypothesis that "There is no significant difference of post EA of low SES rural pupil-teachers taught through traditional method &Low SES urban pupil-teachers through social sites. rejected.

Findings

On the basis of above result ,the Post environmental awareness increased in LSES urban pupil-teachers taught by social sites comparison to LSES rural pupil-teachers taught by TM . social sites can create effective role in teaching learning process that encourage LSES urban pupil-teachers to be critical thinker

,communicator and problem solver of environmental problems comparative to traditional classroom method in LSES rural pupil-teacher.

Objective26: To study the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.

Result

After analysis of data this is concluded that the post Environmental awareness of urban pupil-teachers taught by SS and rural pupil-teachers taught by TM are significantly differ. So null hypothesis that "There is no significant difference urban pupil-teachers taught by SS and rural pupil-teachers taught by SS" rejected.

Findings

On the basis of above result the post EA increased in urban pupil-teachers taught by SS comparison to rural pupil-teachers by TM. This is due to the fact that SS played important role in developing environmental awareness.

Objective 27: To study the post environmental awareness of Low SES by TM & High SES by SS.

Result

After analysis of data this is concluded that the post Environmental awareness of LSES pupil-teachers teachers taught by TM& HSES pupil-teachers taught by SS are significantly differs. So null hypothesis that "There is no significant difference of post EA of LSES pupil-teachers taught through TM&HSES pupil-teachers taught through SS" rejected.

Findings

On the basis of above result ,the Post environmental awareness increased in HSES pupil-teachers taught by social sites comparison to LSES pupil-teachers taught by TM . social sites can create effective role in teaching learning process that encourage HSES pupil-teachers to be critical thinker , communicator and problem solver of environmental problems comparative to traditional classroom method in LSES pupil-teacher.

5.16 Educational implication of Research

After finding out results in research it is important to discuss its importance in education field .Researcher found some educational implications of research. These are as follows:

1. Current information related to environmental issues would be provided to pupil-teachers.
2. Pupil –teachers would be encouraged to create and moderate eco facebook groups that center on environmental issues.
3. Pupil-teachers would be encourage to post acquired interesting knowledge of environment on group's wall, so the valuable environmental information may easily accessible to all pupil-teachers ,their facebook friends and entire community of facebook.
4. pupil-teachers would be involve in spreading the environmental information even after their course is completed but in traditional method pupil-teachers relation with study over after exams.
5. Pupil-teachers can start campaign for plantation and motivate to others by facebook page.
6. Any video related to environment like to make best from waste material , ways to protectection of pollution ,alternate of plastic etc. can be uploaded on facebook page and aware other pupil-teachers about this.
7. Rural pupil-teachers would be able to know about the energy saving techniques by using facebook.
8. Rural pupil-teachers would be able to know about the different agriculture techniques by becoming member of different environmental groups dominating on facebook.
9. Rural pupil-teachers would be able to know different methods of waste reduction by using social sites.
10. Low & High SES rural pupil-teachers would be able to know the importance of environment by using social sites and they will not migrate from rural to urban area.

11. urban pupil-teacher would be aware about problem of urbanization and they will motivated for sustainable practice of environment.
12. Low & high SES urban pupil teachers would be aware of different pollution, plastic waste which is current problems and try to find out solution to resolve them.
13. Social sites would be helpful in strengthening teacher student relationship &peer relationship. Pupil-teachers can get high quality learning material about environment. Their engagement in studies can enhances and overall student experience can developed. Socialization also provides opportunity for emotional engagement.
14. social media can be effective medium to active learning for environmental issues like pollution ,plastic waste. ,ozone depletion ,global warming, climate change etc. and their solutions
15. Pupil-teachers would be able to get good knowledge of environment by reading environmental articles and news on social sites. They can discuss about it in classroom among students and teachers.
16. Social sites can be reach to most of students. Students those are shy in nature, they can also share their views about environment. Interaction between students would be developing with each other.
17. Social sites would be helpful in deciding students professional carrier .Pupil-teachers those are interested in environment subject with the help of social sites they can make contact with environmentalist and it will help to develop their professional carrier.
18. Social sites would be helpful in develop contacts. Using social sites students meets students of other colleges, professionals, educators .It helps in developing connections and communications with these new colleges. It was never possible without social networking sites. As we all know that facebook are being used in every corner (urban &rural areas) of the country .so environmental problems can be solved by utilizing these sites in proper way.

19. Social sites can create effective role in teaching learning process that encourage students to be critical thinker, communicator and problem solver in collaborative environment. Social sites would be helpful in education in many ways.
20. Social sites can be used to developing environmental awareness in deaf & dump pupil-teachers.

5.17Suggestions

1. Free. Internet facility should be provided to college students in rural areas.
2. Internet should be provided in rural areas by balloons.
3. Cyber crime should be stopped .sometimes. Social sites provide fake news as a result real and informational news is not undertaken seriously. So this is government responsibility to ban this type of news.
4. Teachers those are aware about technologies should be instruct to students about importance of social sites
5. Girls don't want to come on social sites .So internet security should be provided to them and instruct them to don't disclose their personal information on social sites.
6. In universities, colleges group should be made on facebook to aware about environment.
7. Training should be given to teachers related to use of social sites and its importance in developing environmental awareness.

5.18 Recommendations of Future research:

Research is very long process. Researcher cannot cover all areas in research due to limitation of time &recourses. So researcher is providing some areas that can be covered in future. These are as follows

1. Research is conducted on only pupil-teachers but other students like senior secondary, college students, Teachers, general people can be taken for future research.
2. Research is conducted on urban and rural pupil –teachers at place of it other variables can be taken.

3. In future research at place of environmental awareness other subjects can also be taken.
4. Intelligence can also be taken to develop environmental awareness through social sites.
5. Treatment methods duration can be increased to get more precious and accurate results.
6. Researcher used Facebook . At place of it other social sites can be used.
7. Researcher tried to cover all topics related to environment awareness. In future research can be done by taking specific topic related to environment by using social sites.
8. In future research can also be pursued specifically consider either male or female.

9 .Deaf & dump students can be take for research for developing EA through SS.

5.19 Conclusions

In present chapter researcher is presented summary, findings, testing of hypothesis, educational implication of research, suggestions and scope for future research.

Researcher tried to complete the research work with accuracy but It is not possible to be hundred percent accurate. so the researcher feel sorry for those mistakes that are not acquainted by her. In recent technological era the education through social sites is very useful for future teachers.

Conclusion

The above research is about the comparative study of environmental awareness in low and high SES rural and urban pupil teachers through social sites and traditional method. Post environmental awareness is found high comparative of pre environment awareness. High SES, low SES, urban/rural pupil –teachers environmental awareness is high by social sites comparison to traditional method but in case of rural pupil-teachers low SES pupil-teachers are more aware by traditional method comparative to social sites. So we can't solely depend upon the social sites for developing environmental awareness. It can prove a helping hand to traditional method.

Effort should be done for better achievements of environmental awareness .It can be done by provide internet facility at all the area especially rural area also. Government should do efforts for betterment to include social sites for developing environmental awareness.

SUMMARY

Introduction

All the things that surround us and effect us directly and indirectly is called environment, Environment can be divided into two parts:

- Natural Environment
- Man made Environment

Environment and man are related to each other. Man cannot live without environment. Even we cannot imagine mankind existence without environment.Before 19th century man had very much precious relationship with environment. Trees were related with religion Tulsi, Peepal, Barged, Banana trees were worshiped by every mankind. Rivers were also worshiped in form of god.

After 19th century man third eye of greed opened and he start degrading the environment. Scientific and technological revolution has resulted drastic change in the environment leading to environmental degradation and crisis. As a result environmental problems of global magnitude including population explosion, energy resources and utilization, the provision of food supplies, exploitation of raw materials, global warming ,degradation of agriculture land, extinction of wildlife species, acid rain, ozone layer depletion, air pollution (increase in number of automobiles industries.) are disturbing ecological balance in the environment.

There is need of collective thinking, will and effort to save environment. Effective implementation of environmental management and conservation programmes depends on education, development of awareness and training in the relevant areas. School, colleges can play important role for it. .Pupil-teachers are teacher of future generation. Today's era is internet era. Social sites are used by most of students. Researcher tried to know by experimental method that can social sites become effective medium to developing environmental awareness between pupil-teachers after considering their background and socio economic status.

Statement of problem

"A comparative study of environmental awareness in rural and urban pupil-teachers through social sites and Traditional methods"

Justification of Research

Today's society is technical. A student cannot know the world without internet. Social sites are becoming integral part of their life.Most of students are using social sites for chating, video talking, news and for sharing pictures. According to Bozkurt Aras(2017), the social sites provides opportunity for communication and interaction especially for distance education students who are seprated from teachers, learning resources and other students in terms of time and space. Educators in higher education have begun exploring alternative means of instruction including social communication tools designed for easy use, instructional freedom and constant online discussions (Brady, Holcombs Smith 2010). The uses of social networks have increased exponentially in recent years although there is some controversy over the imbedded nature of social media in education setting (Chang Yu &LU 2015).

As review of literature most accessible social site is face book and it is becoming important mean to develop knowledge and awareness about environment Many environmental awareness groups are on social sites specially facebook that are directly or indirectly awaking people about environment by pictures, videos and text .Most of students and teachers are using facebook . Facebook may become effective tool for developing environmental awareness in pupil-teachers. After considering outlook of today's society and increasing environment problems, interest developed in researcher's mind to do research on this topic.

Although several studies have been done on use of a social networking sites (Facebook) as instructional tool for many subjects and environmental awareness. Most of the research studies have undertaken in western countries on developing environmental awareness through social sites.but in India only few studies pursued for it. Studies related to environmental awareness is limited.Specially in Rajasthan and Uttrakhand No studies have been undertaken on basis of socioeconomic status and background of pupil- teachers to developing environmental awareness through social sites.

This study is very new related to developing environmental awareness in pupil-teachers through social networking sites.

This study is necessary to explore most effective path way for developing knowledge, attitude and behavior towards environment in pupil- teachers and it can be useful to test social networking sites for developing environmental awareness.

Objectives of Research

The proposed study shall be completed to achieve the following objectives -

1. To study the post environmental awareness in pupil-teachers taught through social sites and traditional methods.
2. To study the post environmental awareness in high and low socio economic status pupil-teachers taught through social sites and traditional methods
3. To study the post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
4. To study the post environmental awareness in low socio economic status rural and urban pupil-teachers taught through social sites and traditional methods.
5. To study the post environmental awareness in high and low socio economic status rural pupil-teachers taught through social sites and traditional methods.
6. To study the post environmental awareness in high and low socio economic status urban pupil-teachers taught through social sites and traditional methods.
7. To study the comparison of pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods
8. To study the comparison of pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. To study the comparison of pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
10. To study the comparison of pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods
11. To study the comparison of pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.

12. To study the pre & post EA of low SES rural pupil –teachers taught through traditional methods.
13. To study the pre & post EA of high SES rural pupil –teachers taught through traditional methods.
14. To study the post EA of high &low SES rural pupil –teachers taught through traditional methods.
15. To study the pre EA of high &low SES rural pupil –teachers taught through traditional methods.
16. To study the post EA of high SES & low SES rural pupil –teachers taught through social sites.
17. To study the post EA of high SES rural pupil-teacher by traditional method & post EA of low SES rural pupil-teachers taught through social sites
18. To study the pre & post EA of low SES urban pupil –teachers taught through traditional methods.
19. To study the pre & post EA of high SES urban pupil –teachers taught through traditional methods.
20. To study the post EA of high &low SES urban pupil –teachers taught through traditional methods.
21. To study the pre EA of high &low SES urban pupil –teachers taught through traditional methods.
22. To study the post EA of high SES & low SES urban pupil –teachers taught through social sites.
23. To study the post EA of high SES urban by traditional method & low SES urban taught through social site
24. To study the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional methods.
25. To study the post EA of low SES rural pupil-teachers taught through traditional method &Low SES urban pupil-teachers through social sites.
26. To study the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.

27. To study the post environmental awareness of Low SES by TM & High SES by SS.

Delimitation of the Study

The delimitations of proposed study shall be as follows-

- The proposed study will be confined to the rural and urban pupil-teachers of Dehradun city.
- Pupil-teachers of science, arts and commerce will be taken as the sample.
- The proposed study will be also delimited to the topic of "Environmental awareness"
- Researcher will be use the internet, audio-visual aids and traditional methods towards developing environmental awareness.

Population and Sample

Approximately 2450 women pupil-teachers studying in different 25 BE.d. colleges of Dehradun dist .In the proposed study, an intact sample of 240 students of pupil-teachers of four B.Ed. institution of Dehradun discrict, Uttrakhand has been taken.

Research methodology

Experimental method will be employed for present study. In the experiment certain conditions or variables are kept constant for all treatments; these conditions are termed as "controlled conditions or controlled variables". The following four conditions or variable have been considered as controlled variable in this study-

I.	Grade	Pupil-Teachers will be taken for treatment.
II.	Medium of Instruction	Treatment has been given by social sites and traditional method to selected pupil-Teachers.
III.	Contents	The same Instructional material i.e. information related to environmental awareness has been used for experimental and controlled group pupil-teachers.
IV.	Age	Age of pupil-teachers are between 21 to 28

Applied tools

In the present study the researcher pursued the following standardized tools to collect data.

- Socio –Economic Status Scale (urban & rural) Dr. Ashok K.Kalia and Dr. Sudhir Sahu.
- Environmental Awareness Ability Measure by Dr .Praveen Kumar Jha

socio economic status of urban and rural pupil teachers is needed to find out in research.In today's society socio economic status not only depends on salary of person but also on other factors like health ,education ,social cultural components and means of entertainments.Socio economic status scale of Dr. Ashok k. Kalia is designed to measure Status of family in relation to their level of socio-cultural participation, ability to influence mass, level of education, kind of occupation ,financial position health- wellbeing , lifestyle , level of aspiration, kind of gadgets, services and leisure facility that family enjoys. It accomplishes all requirements needed to research.

Researcher needs to find out environmental awareness of pupil-teachers .Environmental awareness ability measure tool includes causes of pollution, conservation of soil, air, forest, energy conservation, conservation of human health , conservation of wild-life and animal husbandry. It fulfil all requirements for research.

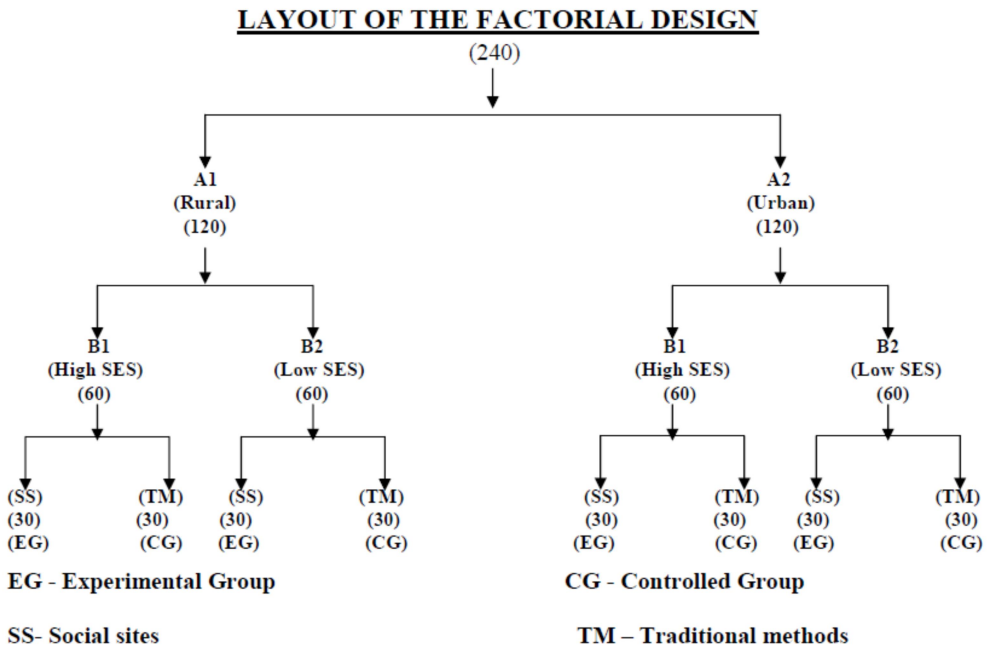
Both scales are standardized and completing research requirement to collect data.so Researcher considered them in research.

Research design

The proposed study will be conducted through experimental method. It will be based on 2x2x2 mixed factorial design. When more than one independent variable is considered in an experimental study; a mixed factorial design is usually employed. Thus, in the proposed study two independent variables-Instructional Method (Social Sites & Traditional Methods) with rural & urban and Socio-Economic Status (High & Low) will be used so that 2x2x2 mixed factorial design will be adopted. Factorial designs refer more to the assignment of subjects to groups, to the measurement employed and to the statistical analysis techniques than to what is done in subjects.

In the proposed research work the Instructional Methods – Social sites and Traditional Methods are the primary independent variable. Rural & urban and Socio-Economic Status are the other secondary independent variables. The main objective is to ascertain the interactional effect between the independent variables-primary and secondary and dependent variable .

Layout of the factorial design



Sample of 240 students have been taken for proposed research. It has been divided into 120 rural and 120 urban pupil-teachers of urban and rural areas .Each group (Rural and Urban) has been further divided into two sub groups of 60 each on the basis of socio-economic status (High and Low).Now the subjects in each combination has been divided into two groups of 30 each. One group of 30 students from each group has been included in experimental group for learning through social site and the other group has been considered as controlled group learning through traditional method.

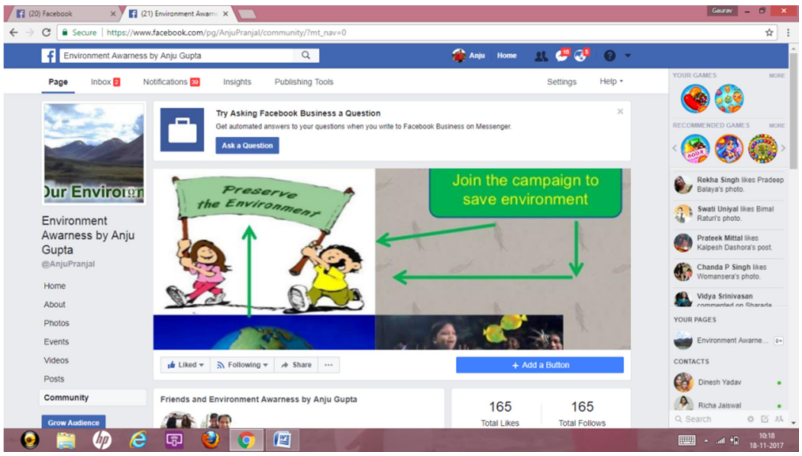
Treatment of combinations

To achieve aims of studying the effectiveness of developing environmental awareness in pupil-teachers through social sites against the Traditional Method, the researcher has been construct two groups on the basis of Urban & Rural background. Each group (Urban & Rural) has been further divided into two sub-groups on the basis of Socio-Economic Status scale(standardized tool) (High & Low).After this researcher used environmental awareness ability measure tool to measure the pre environmental awareness of all selected pupil – teachers.

After this the pupil-teachers in each combination have been divided into two groups. Treatment on the selected topics had been given to first group through social sites and the second group had been treated through Traditional Method (TM). Researcher used facebook to give instructions related to environment .Given instructions were related to environmental awareness tool of pre test .Researcher used following steps to instruct the pupil teachers through social –sites:

- Researcher made page on facebook as ‘ environmental awareness of Anju Gupta’.all selected experimental group pupil-teachers are informed about it.
- Researcher provided information’s, picture of environmental issues for 2 months. Pupil -teachers followed it.
- parallaley researcher instruct the other group through traditional method.
- After this researcher applied post environmental test for all pupil-teachers.

Researcher has shown pictorial view (as below) of given treatment to visualize the better understanding of treatment method. After this Researcher used statistics techniques to find out the result.



Hypothesis of research

Taking into account the objectives of the proposed study the following hypotheses have been formulated.

1. There is no significant difference of environmental awareness of pupil-teachers taught through social sites and traditional methods.
2. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status pupil -teachers taught through social sites and Traditional Methods (TM).
3. There is no significant difference of post environmental awareness in high socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
4. There is no significant difference of post environmental awareness of low socio economic status rural and urban pupil-teachers taught through social sites and Traditional Methods (TM)
5. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status ruralPupil-teachers taught through social sites and Traditional Method (TM).
6. There is no significant difference of post environmental awareness of High and Low Socio-Economic Status urban Pupil-teachers taught through social sites and Traditional Methods (TM).

7. There is no significant difference between pre and post environmental awareness of rural pupil teachers taught through social sites and traditional methods
8. There is no significant difference between pre and post environmental awareness of urban pupil-teachers taught through social sites and traditional methods
9. There is no significant difference between the pre and post environmental awareness of low socio economic status pupil-teachers taught through social sites and traditional methods
10. There is no significant difference between the pre and post environmental awareness of high socio economic status pupil-teachers taught through social sites and traditional methods
11. There is no significant difference between the pre and post environmental awareness of rural and urban pupil teachers taught through social sites and traditional methods.
12. There is no significant difference between the pre & post EA of low SES rural pupil –teachers taught through traditional methods
13. There is no significant difference between the pre & post EA of high SES rural pupil –teachers taught through traditional methods.
14. There is no significant difference between the post EA of high &low SES rural pupil –teachers taught through traditional methods.
15. There is no significant difference between. the pre EA of high &low SES rural pupil –teachers taught through traditional methods.
16. There is no significant difference between..the post EA of high SES & post low SES rural pupil –teachers taught through social sites.
17. There is no significant difference between the post EA of high SES rural pupil-teachers by traditional method & post EA of low SES rural pupil-teachers taught through social sites
18. There is no significant difference between. the pre & post EA of low SES urban pupil –teachers taught through traditional methods.

19. There is no significant difference between. the pre & post EA of high SES urban pupil –teachers taught through traditional methods.
20. There is no significant difference between the post EA of high &low SES urban pupil –teachers taught through traditional methods.
21. There is no significant difference between the pre EA of high &low SES urban pupil –teachers taught through traditional methods.
22. There is no significant difference between. the post EA of high SES & low SES urban pupil –teachers taught through social sites.
23. There is no significant difference between the post EA of high SES urban pupil-teacher by traditional method & post EA of low SES urban pupil-teachers taught through social sites
24. There is no significant difference between the post EA of High SES urban pupil-teachers taught through social sites& Low SES urban pupil-teachers through Traditional method.
25. There is no significant difference between the low SES rural pupil-teachers taught through TM & low SES urban pupil-teachers through SS.
26. There is no significant difference between. the post environmental awareness of urban pupil-teachers taught through SS and rural pupil-teachers taught through TM.
27. There is no significant difference between the post environmental awareness of Low SES by TM & High SES by SS.

Findings

Based on the similar group researcher has divided the findings of objective into four group and below shows the 4 tables describing them.

Table1

S.No.	EA	Group	Mean	Std. Devi.	t	df	Signifi. value	Signifi.
H1	Post	SS	43.63	4.151	9.820	119	0.000	Significant
		TM	36.23	6.422				
H3	Post High	TM	36.12	5.675	-6.185	59	0.000	Significant

	SES	SS	41.50	4.806				
H4	Post Low SES	TM	34.15	5.865	-4.747	59	0.000	Significant
		SS	39.90	6.957				
H5	Post, Rural	TM	38.32	6.321	-3.477	59	0.001	significant
		SS	39.58	5.506				
H6	Post,urban	TM	42.52	4.735	-3.511	59	0.001	significant
		SS	44.75	3.117				
H23	Post,Urban	High SES,TM	44.30	3.109	0.434	29	0.667	Not Significant
		Low SES,SS	43.83	4.434				
H24	Post ,Urban	High SES,SS	40.67	4.802	2.637	29	0.013	Significant
		Low SES,TM	36.73	4.683				
H25	Post ,Low SES	Rural, TM	33.90	6.065	-3.864	29	0.001	Significant
		Urban SS	39.53	5.290				
H26	Post	Urban SS,	43.63	4.151	9.820	59	0.000	Significant
		Rural, TM	36.23	6.422				
H27	Post	Low SES,TM	34.15	5.865	6.593	59	0.000	Significant
		High SES,SS	40.10	5.041				

Table 2

S.No.	EA	Group	Mean	Std. Devi.	t	df	Signifi. value	Signifi.
H12	Low SES rural, TM	Pre	33.90	6.065	-7.780	29	0.000	Significant
		Post	43.80	3.123				
H14	Post, Rural, TM	Low SES	43.80	3.123	7.339	29	0.000	Significant
		High SES	34.40	5.751				
H15	Pre, Rural, TM	Low SES	33.90	6.065	-0.374	29	0.711	Not Significant
		High SES	34.40	5.751				
H18	Low SES, Urban, TM	Pre	36.73	4.683	-8.619	29	0.000	Significant
		Post	45.20	3.112				

H19	High SES, Urban, TM	Pre	37.83	5.133	-6.027	29	0.000	Significant
		Post	44.30	3.109				
H20	Post, Urban, TM	Low SES	45.20	3.112	1.259	29	0.218	Not Significant
		High SES	44.30	3.109				
H21	Pre, Urban, TM	Low SES	36.73	4.683	-0.840	29	0.408	Not Significant
		High SES	37.83	5.133				

Table 3

S.No.	EA	Group	Mean	Std. Devi.	t	df	Signifi. value	Signifi.
H16	Post, Rural, SS	Low SES	40.20	4.310	0.971	29	0.340	Not Significant
		High SES	38.97	6.505				
H22	Post, Urban, SS	Low SES	43.83	4.434	2.191	29	0.037	Significant
		High SES	41.17	4.728				

Table 4

S.No.	EA	Group	Mean	Std. Devi.	t	df	Signifi. value	Signifi.
H2	Post	Low SES	36.53	6.053	-3.304	119	0.001	Significant
		High SES	38.81	5.893				
H7	Rural	Pre	36.23	6.422	-11.258	119	0.000	significant
		Post	41.53	5.381				
H8	Urban	Pre	39.11	5.345	-12.502	119	0.000	Significant
		Post	43.63	4.151				
H9	High SES	Pre	38.81	5.893	-3.939	119	0.000	Significant
		Post	41.89	5.470				
H10	Low SES	Pre	36.53	6.053	-9.891	119	0.000	Significant
		Post	43.26	4.186				

From the table 1there is a significance difference between TM & SS at 0.000 levels in post EA of pupil-teachers,High SES pupil-teachers, LowSESpupil-teachersin

favour of SS, 0.000level in post EA of rural pupil-teachers, urban pupil-teachers in favor of SS.

There is no significance difference between the High SES by TM & Low SES by SS in post EA of urban pupil-teachers.

There is significant difference between High SES by SS &low SES by TM at 0.013 significance level in post EA of urban pupil-teachers in favour of High SES SS & between rural pupil-teachers&urban pupil-teachers SS at 0.001 significance level in post EA of Low SES pupil-teachers in favour of urban pupil-teachers by SS.

There is significance difference between urban pupil-teachers by SS & rural pupil-teachers by TM at 0.000 significance level in post EA of pupil-teachers in favor of urban SS& between Low SES Pupil-teachers by TM & High SES pupil-teachers by SS at 0.000 significance level in post EA of pupil-teachers in favour of high SES by SS.

From Table 2there is significance difference between low SES and High SES at significance value of 0.000 in post environmental awareness of rural by traditional method in favour of low SES rural pupil teacher. There is not significance difference between low SES and High SES of pre environmental awareness of rural/urban pupil teacher by traditional method.

There is significant difference between pre and post at significance value of 0.000 in environmental awareness of Low SES of rural by traditional method in favour of post test. There is significance difference between pre and post at significance value 0.000 low /High SES urban by traditional method in favors of post test.

From Table 3 There is no significance difference between the Low SES and High SES rural for Post Environmental awareness by SS at significance value. There is significance difference between Low SES and High SES at significance value of 0.037 in post environmental awareness of urban by social sites in favour of low SES.

From Table 4 There is significant difference between low SES and High SES at significance value 0.001 in post environmental awareness of pupil-teachers by traditional method and social sites in favour of high SES. There is significance difference between pre and post test at significant value of 0.000 in environmental

awareness of rural/urban/High SES and Low SES pupil-teachers in favour of post test.

Conclusion and recommendation

The above research is about the comparative study of environmental awareness in low and high SES rural and urban pupil teachers through social sites and traditional method. Post environmental awareness is found high comparative of pre environment awareness. High SES, low SES, urban/rural pupil –teachers environmental awareness is high by social sites comparison to traditional method but in case of rural pupil-teachers low SES pupil-teachers are more aware by traditional method comparative to social sites. So we cann't solely depend upon the social sites for developing environmental awareness. It can prove a helping hand to traditional method.

Effort should be done for better achievements of environmental awareness .It can be done by provide internet facility at all the area especially rural area also. Government should do efforts for betterment to include social sites for developing environmental awareness.

Researcher has included following chapter in research report-

First Chapter : In first chapter introduction of problem, justification of problem, statement of the problem, objectives of Research, hypothesis, sampling methods, the terminology used in research and outline of research have been included.

Second Chapter (Study of related literature): In second chapter researcher has included study of related literature.

Third chapter (Design of Research): In this chapter method used in research, tools and statistics have been used.

Fourth Chapter (Data Collection, Interpretation and analysis) : In the chapter data collection interpretation and analysis have been described.

Findings of work done, the suggestions and the conclusion drawn of work are presented in **chapter 5**.

The Bibliography based on the present work and the references made in thesis are provided at the end of the thesis.

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A Comparative Study of Environmental Awareness in Urban and Rural Women Pupil-Teachers

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Abstract

In this study, the investigator attempted to investigate the knowledge of environmental awareness in urban and rural women pupil-teachers in relation to their academic streams (arts and science).women have key role to play in preserving the environment and natural resources, and in promoting sustainable development. For this study the sample consisted of 100 pupil-teachers of urban and rural background from training colleges of kota city. The investigator used the self constructed tools:-1) questioners tool and 2) interview of experts to estimate environmental awareness of pupil-teachers. The data collected was processed for statistical analyses through percentage. The study revealed that the urban women pupil-teachers are more aware about environment than rural women pupil-teachers. Moreover, urban arts and science women pupil-teachers are more aware about environment than rural arts and science women pupil-teachers. In conclusion the present study shows that there is an influence of urban and rural background and academic streams on the level of pupil-teachers environmental awareness.

Keywords: Environmental Awareness, Pupil-Teachers.

Introduction

All the things that surrounds us and effect us directly and indirectly is called environment.

Environment can be divided into two parts-

1. Natural environment
2. Manmade environment

In natural environment we include biotic element and abiotic element. Biotic element include plant kingdom, micro kingdom and animal kingdom. Biotic element includes lithosphere, atmosphere and hydrosphere.

In manmade environment we include religious environment, spiritual environment, philosophical environment, social environment, cultural environment, educational environment, technological environment, political environment.

Environment and man are related to each other. Man cannot live without environment. Even we cannot imagine mankind existence without environment.

Before 19 century man had very much precious relationship with environment. Trees were related with religion .Tulsa, Peepal, banyan, Banana trees were worshiped by every mankind. It was said God lives in trees. People used to encourage tree plantation relating it with religion. Chipko movement was based on the saving trees. In this movement thousands of people sacrifice their life for saving the trees.

Rivers were also worshiped in form of God. It was say that our all sins will washed away after taking bath in Ganga, but today it is polluted in this extend that nobody can drink its water. Yamuna River is also polluted due to plastic industries in Delhi.

After 19th century man third eye of greed opened and he start degrading the environment. Scientific and technological revolution has resulted drastic change in the environment leading to environmental degradation and crisis. The speed and nature (particularly man induced change) in recent years have bought about a series of environmental problems of global magnitude including population exploration, energy resources and utilization, the provision of food supplies, exploitation of raw

materials, global warming, acid rain, ozone layer depletion, air pollution due to increase in number of automobiles industries.

Agriculture fields are being changed in commercial land like houses, factory, industries, so the village people are leaving their place. Mountains and plains are being polluted due to deforestation, because of this so many precious wildlife species are getting extinct. As a result Ecological balance is disturbing in the environment.

So, the environment protection and preservation has been an urgent need of hour. This can only be possible if we have a right type of attitude towards such issues and if we have proper awareness about related matters. It is widely accepted that the development of such awareness and attitude can be possible through environmental education.

Education is an important social instrument and mean, Which act as a catalyst in improvement of different aspects of life, Knowledge, awareness, skill, values and attitude acquired through education help once to lead a desired quality of life. In order to protect and conserve emphasis has been given to the environmental education in both formal and non formal system of education.

In formal education, teaching of environment education depends not only on curriculum and other facilities provided to student but also the quality of teachers in term of knowledge, a awareness, attitude and skill relating to environment among students.

Urban and rural woman pupil-teachers are teacher of future generation. Women have a key role to play in preserving the environment and natural recourses, and in promoting sustainable development. Women have the main responsibility for meeting household needs and are therefore a major force in determining consumption trends. So, they should be aware of environmental aspects only then they can make future generation aware of environmental problems and their solutions.

In this way, researcher felt need to work on comparative study of environmental awareness between urban and rural women pupil-teachers.

Objectives of Research

1. To study the knowledge of environmental problems in women - pupil-teacher.
2. To find out the level environmental awareness in rural arts women - pupil-teachers
3. To find out the level environmental awareness in rural science women - pupil-teachers.
4. To find out the level environmental awareness in urban arts women - pupil-teachers
5. To find out the level environmental awareness in urban science women - pupil-teachers.
6. To provide suggestions to develop environmental awareness in rural and urban women pupil-teachers.

Sample

The present study was conducted to see the environmental awareness in rural and urban woman pupil teachers. Sample consist of 100 pupil teachers. Sample of 50 rural and 50 urban pupil teachers of different B.Ed. Colleges of Kota.

Tool Used

For the present study, a self prepared tool is used for pupil teacher.

Scoring of Data

A self prepared environmental awareness tool has 34 items. Number of awareness and number of unawareness in each item is find out by percentage method.

Statical Technique Used in the Study

For the purpose of study percentage method is used.

Result and Discussion

To study the knowledge of environmental Problems in women pupil-teachers is tabulated below:

Table 1

Q No.	Subject Matter	Rural Women Pupil-Teachers		Urban Women Pupil-Teachers	
		Arts	Science	Arts	Science
1	Danger of Vehicle Exhaust	44%	80%	48%	76%
2	Source of major pollution	88%	84%	80%	68%
3	Major area of environmental Problem	100%	96%	88%	100%
4	Most Polluted river due to plastic industry	44%	64%	44%	72%
5	Noise Pollution	92%	100%	100%	96%
6	Non Fertility of soil	84%	80%	80%	80%
7	Industry which has highly affected the atmosphere of Kota	92%	88%	84%	100%
8	Greedy nature of man regarding environment	96%	100%	100%	100%
9	Water Pollution	52%	76%	64%	88%
10	Main reason of Ozone layer depletion	76%	80%	76%	92%
11	Main reason of global warming	84%	88%	88%	92%
12	Noise Pollution	92%	96%	92%	96%
13	Acid rain	80%	92%	92%	92%
14	Global Warming	68%	88%	84%	84%
15	Deforestation	88%	96%	100%	100%
16	Main reason of emerging spots of Tajmahal	16%	12%	12%	16%

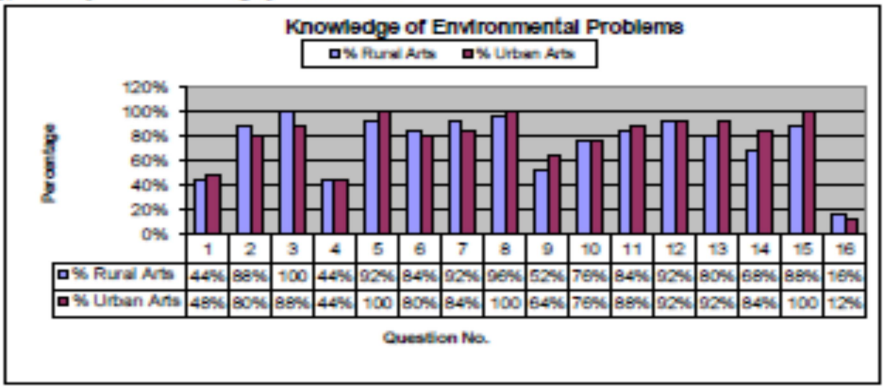
Table-1 shows, following facts in rural and urban women pupil-teachers that urban arts women pupil-teachers are more aware than rural arts women pupil-teacher about environmental problems like in areas of danger of Vehicle exhaust, Noise pollution, greedy nature of man regarding environment, water pollution, Acid rain, deforestation.

Rural arts women pupil-teachers are more aware about source of major pollution, major areas of environmental problems, non fertility of soil, industry which has highly affected the atmosphere of Kota, main reason of emerging spots on Taj ahal.

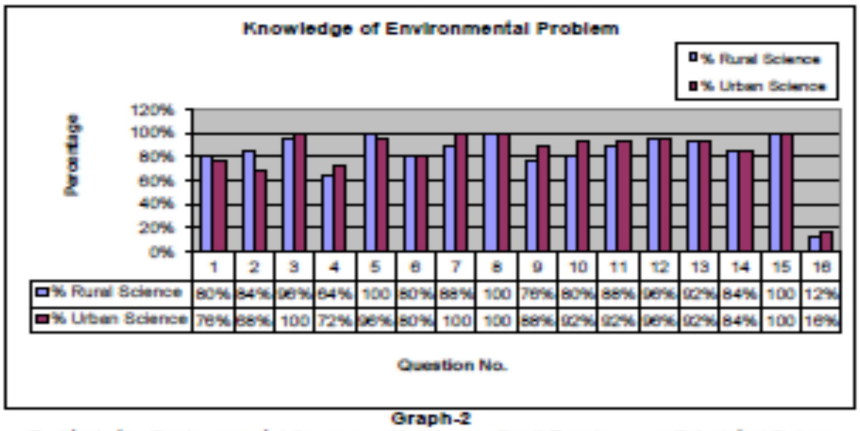
Urban and rural women pupil-teachers (Arts) are equally aware about environmental problems like in areas of most polluted river due to plastic industry, Noise pollution Ozone layer depletion. Urban science women pupil-teacher are more aware than rural arts women pupil-teachers about environmental problems like in areas of most polluted river due to plastic industry, industry which has highly affected the atmosphere of Kota, water pollution, Ozone layer depletion, global warming, Deforestation and main reason of emerging spots on Taj mahal.

Rural science women pupil-teachers are more aware about danger of vehicle exhaust, source of major pollution. Urban and rural women pupil-teachers (science) are equally aware about environmental problems like in areas of non fertility of soil, greedy nature of man regarding environment.

Knowledge of environmental problem of rural and urban Arts women pupil-teachers can be described by following graph-1:



Graph-1
Knowledge of Environmental Problems of Rural and Urban Science Women Pupil-Teachers can be Described by Following Graph-2.



Graph-2
To Study the Environmental Awareness in Women Pupil-Teachers are Tabulated Below-

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Table-2

Q. No.	Subject Matter	% of Rural Women Pupil-Teacher		% of Urban women Pupil-Teacher	
		Arts	Science	Arts	Science
1	Essential percentage of forest to make environmental balance	64%	80%	76%	64%
2	Harmful rays which is prevent by O_3 layer to coming on Earth	100%	92%	100%	100%
3	Name of lady who sacrifice her life for saving the trees in Khejadi.	68%	96%	64%	84%
4	Eco friendly and Economic mean of energy	64%	88%	84%	92%
5	Economic source of energy in rural areas	100%	100%	100%	96%
6	Source of major pollution	88%	84%	80%	68%
7	Mean of developing affection about nature in boys	76%	88%	84%	68%
8	Date of world environment day	88%	76%	80%	88%
9	Name of environment programme broadcasted at morning time from akashvani canter, Kota	48%	64%	76%	64%
10	Effective media to develop environmental Awareness	16%	24%	16%	32%
11	Medium to develop environmental awareness in people	80%	52%	56%	64%
12	At which place person should dispose the waste at Railway station	96%	100%	100%	100%
13	State-tree of Rajasthan	100%	100%	100%	100%
14	Environmental education	100%	100%	100%	100%
15	Chipko Movement	100%	100%	96%	92%
16	Life saving layer O_3	92%	100%	96%	96%
17	Source of Methane gas	68%	84%	72%	92%
18	Grasping category of animals	88%	96%	100%	100%

Knowledge of environmental awareness of rural and urban arts women pupil-teachers can be analyzed by table-2. We can conclude following facts in rural and urban women pupil-teachers that urban arts women pupil-teachers are more aware about environment affairs than rural arts women teachers like in areas of essential percentage of forest to make environmental balance, ecofriendly and economic mean of energy, mean of developing affection about nature in boys, environmental programme broadcasted at morning time from Akashvani center Kota, place at which person should dispose the waste at Railway station, life saving layer ozone, source of methane gas, food grasping category of animals.

Rural arts women pupil-teachers are more aware about name of lady who sacrifice her life for saving the trees in Khejadi, source of major pollution, date of world environment day, medium to develop environmental awareness in people

Urban and rural women pupil-teachers (Arts) are equally aware about environment affairs, like harmful rays which are prevent by ozone layer to coming on Earth, Economic source of energy in rural areas, effective media to develop environmental awareness, state-tree of Rajasthan, environmental education.

Urban science women pupil-teachers are more aware about environmental affairs than rural science women pupil-teachers like in areas of harmful rays which is prevent by O_3 layer to coming on Earth, Eco-friendly and economic mean of energy, date of world environment day, effective media to develop environmental awareness, medium to develop environmental awareness in people, source of methane, gas, food grasping category of animals.

Rural science women pupil-teachers are more aware about essential percentage of forest to make environmental balance, name of lady who sacrifices her life for saving the trees in Khejadi, economic sources of energy in rural areas, source of major pollution, chipko movement life saving layer ozone.

Rural and urban women pupil-teachers are equally aware about environmental affairs like in areas of name of environmental program broadcasted at morning time form Akashvani center, Kota. Place of disposing waste at Railway station, State-tree of Rajasthan, environmental education. Environmental awareness in rural and urban art teachers can be described by following graph 3.

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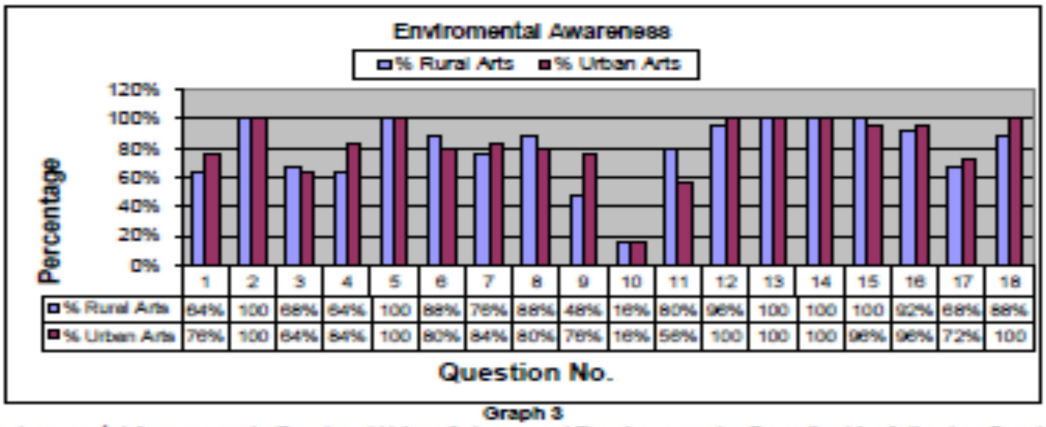
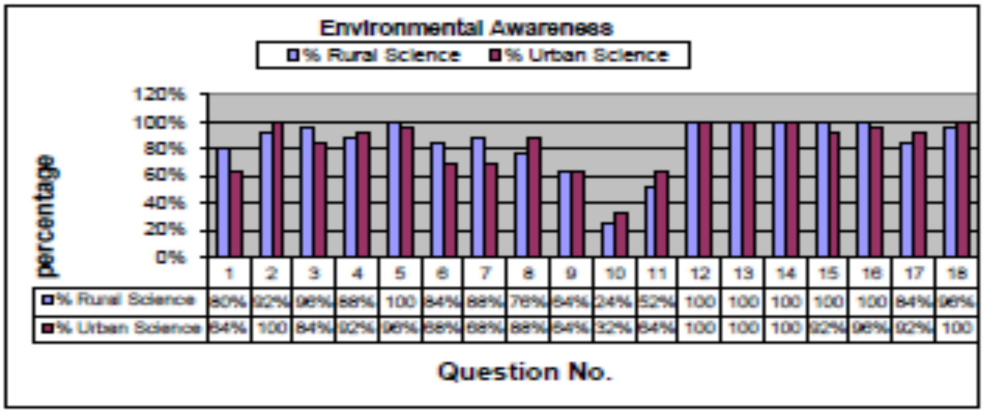


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
% Rural Arts	64%	100	68%	64%	100	88%	76%	88%	48%	16%	80%	96%	100	100	100	92%	68%	88%
% Urban Arts	76%	100	64%	84%	100	80%	84%	80%	76%	16%	56%	100	100	100	96%	96%	72%	100

Graph 3

Environmental Awareness in Rural and Urban Science and Teachers can be Described by following Graph 4



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
% Rural Science	80%	92%	96%	88%	100	84%	88%	76%	64%	24%	52%	100	100	100	100	100	84%	96%
% Urban Science	64%	100	84%	92%	96%	88%	88%	88%	64%	32%	64%	100	100	100	92%	96%	92%	100

Graph-4

Conclusion

It has found from Graph 1 and Graph 2 that urban arts woman pupil – Teachers are more aware about environmental problems than rural arts woman pupil- teachers. Urban science pupil- teachers are more aware about environmental problem than rural science pupil-teachers.Graph3 and4 shows that urban science women pupil teachers are more aware of environmental awareness than rural science women pupil teachers. Urban arts women pupil teachers are more aware of environmental awareness than rural arts women pupil teachers.

Education Implication

In every district environment education center should be developed. In teachers training colleges (B.Ed.). Environmental education should be made compulsory at all levels. For urban and rural women pupil-teachers environmental programmer should be organized. All educational institutions and Govt. libraries should be provided environmental literature and magazines. For all pupil-teachers target of plantation should be fixed and provide them plants without any charge for planting. Women pupil-teachers should be updated about environmental knowledge. For it competitions, research related to environment should be organized time to time. Radio, transistors are cheap and handy. 'Abohawa' programme is broadcasted from Kota Akashvani center and 'Khulla Akash' from Jaipur center related to environment is broadcasted. In these programmes current problems of environment are discussed. Television is very effective source of presenting environmental information 'Bhoomi' programme is broadcasted on Door-darshan in this field. Other environmental programmes are also broadcasted on T.V. but still number of this type of programmes are lacking so, there is need to increase the number of environmental programmes on T.V. News paper is cheap and easy source of providing information related to environment. Environmental articles should

be published time to time. There should be a separate page of environmental news in newspaper. Environment department should encourage the research studies on environmental aspects and their results should be published at mass level. In rural areas environment education should be given by puppet shows, dramas and street plays. Women pupil-teachers should provide knowledge of biodegradable and Non biodegradable wastes. Women pupil-teacher should make aware about dumping in streams. Dumping in streams contaminates the water and put the ecological life as well as health of surrounding communities at risk. Yamuna and Ganga River are example of it. Women pupil-teacher should be provided the knowledge of saving energy. Using efficient source of energy like biogas and solar gas can save energy & designing energy efficient houses. . In today era, as the internet is used commonly so the awareness can be done by social media/sites.

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Socio – Economic Status and Role of Social Sites in Developing Environmental Awareness among Rural-Pupil Teachers

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Abstract

Environment is degrading at fast rate. It has become concern of all, so the environmental protection and preservation has been an urgent need of hour. In this study, the investigator attempted to investigate the effects of socio economic status and role of social sites for developing environmental awareness among rural pupil-teachers. For this study sample consisted of 60 pupil-teachers of rural background from training colleges of dehradun city. The investigator used the standard tool of SES scale and standard environmental test for data collection. Experimental method is applied for study. The data collected was processed for statistical analysis Through T-test.

The study revealed that socio economic status and social sites play important role in developing environmental awareness in rural pupil-teachers. In Rural, low socio economic status pupil- teachers are more aware about environment comparatively to high socio economic status.

Keywords: Socio Economic Status (SES), Environmental Awareness, Social Sites, Pupil-Teacher.

Introduction

Environment means surroundings that directly or indirectly affect us. Nobody can live without environment, but in today's world environment is getting degraded at great extent. All are concern about environment .widespread and systematic concern for environmental issues has grown the world over particularly after 1960s.So as a result world conference on environment held in Stockholm in 1972, the earth summit held in Rio de Janeiro in 1992 showed that environment is one of agenda of international community.

Environment awareness is not only matter of air, water and land pollution but also it depends on socio economic status of people. Knowledge of environmental awareness of rural pupil-teachers in some extend may depend upon the socio economic status. Rural areas people mostly depend upon agriculture, rural people are more closely linked with nature. Biomass sources such as firewood, a dung cakes remain the principal cooking fuels in rural areas. Bio-gas is main sources of fuel. In rural areas wastes are generated is mostly biodegradable in nature for eg. Soil waste, cattle waste, domestic waste, agriculture waste. But at present conservation of environment in rural areas also depend upon social economic status. Socio economic status depends on salary, health, using of electronic media, education and entertainment medium used by people. Low social economic rural people are linked with nature but high social economic status rural people are being attracted towards urban areas .people of rural areas also wants to make their life comfortable .more comfortable life means to using the natural resources in larger quantities. As a result depletion of natural resources occur .Rural people should be educated about different environment techniques They should get knowledge of it that they can get enormous benefits from nature without harming it. If the rural people are aware about different agriculture techniques, use of biogas, using renewable resources at large scale like solar energy, wind energy .waste management techniques, plantation and so on. .As a result they will not move from rural to urban areas Social sites can play a crucial role for it. It can become cheap and easily available source for rural people .Today's student cannot know the world without

technologies. Social sites may prove effective medium for it. Social sites may be important due to following reasons:

1. It provide platform to discussion of best method to save environment that can be use in classroom.
2. It is alternative method to traditional lecture method.
3. It increases the teacher-content, teacher-student and student-student interaction.
4. Facebook provide greater number of learning styles which benefit both the teacher and students.
5. A campaign can be started to encourage students for environmental activities like plantation, use of alternative products at place of plastic.
6. It is useful to test the effectiveness of online teaching.

Although several studies have been done on use of social networking sites developing environmental awareness in foreign countries but in India studies related to this is very limited .So this study is necessary to explore most effective path way to developing knowledge, attitude and behaviour towards environment in pupil-teachers .It can also be useful to test social networking sites for developing environmental awareness.

Review of literature

1. Dr. Anjali Puri, Chandigarh,(2017) *Motivations for use of social networking sites in relation to environment awareness among college student*, Imperial journal of interdisciplinary research , Vol 3, Issue 1,2017,ISSN: 2454-1362

In this study four motives - social connectivity, recognition, entertainment and information for using social sites taken. Study showed that there exists a significant difference between boys and girls student. Girls student are more motivated to use social networking sites for social connectivity and entertainment than boys.

2. Thato Tbbere, Branda Scholtz and P. Calitz,(2016) *Using social media to improve environmental awareness in higher education institution* , Information technology in environmental Engineering, 05 Feb 2016, PP. 101-111

This paper proposes a conceptual model Social media for environmental awareness (SMENA) model, for improving knowledge of environmental issues by means of social media campaign. The result showed that environmental knowledge increase as a result of the campaign.

3. Manca, M. Ranieri,(2013), *Is it a tool suitable for learning ,A critical review of literature on facebook as a technology- enhanced learning environment*, Journal of computer assisted learning, Vol 29 Issue 6, 5 march 2013, Pages 487-504

This paper highlights that the educational value of facebook is not fully determined. Uses of face book for educational purposes are lacking. This article attempts to provide critical overview of current studies focusing on the use of facebook as a technology-enhanced learning environment, with the aim of find out its use into practice.

4. Dr. Manzoor Hussain , Dr, Fayaz Ahmed Loan, Gousia Yassen,(2017) , *The use of social networking sites(SNS) by the post graduate students*, International journal of digital library services Vol. 7,January-March 2017,Issue -1, ISSN 2250-1142

This paper highlights that student at high academic level use social networking sites. Students who use SNS spend 1.43 hours as an average on SNS per day and mostly use SNS to gain knowledge, to be in touch with family and friends to share information and promote social, religious, political and environmental awareness and few for passing time.

Objectives of The Study

1. To find the most effective pathway to develop environmental awarenss between rural pupil-teachers.
2. To study the environmental awareness between low and high socio economic status rural pupil-teachers taught through social sites.

Hypothesis

There is no significant difference between the environmental awareness of low and high socio economic status rural pupil-teachers taught through social sites.

Method

In the present study investigator has used experimental method.

Sampling Method and Sample Size

Investigator has taken sample of 60 rural pupil-teachers. He used standard test of socio Economic status to find low and high socio economic status. Scale is divided in two parts. Part a is containing stream ,caste .researcher also included sex and age of pupil-Teachers and part b is having 5 dimensions related to health, education ,possession of goods and services, socio cultural and economic component. On the basis of this investigator find out the socio economic status of rural pupil-teacher.

Age group of pupil-teachers are demonstrated by this pie chart in Fig 1, Sex wise(male-Female) distribution is demonstrated in Fig. 2, Stream wise distribution pie chart of rural pupil-teachers shown in Fig. 3 and Caste wise distribution chart of rural pupil-teachers given in Fig. 4.

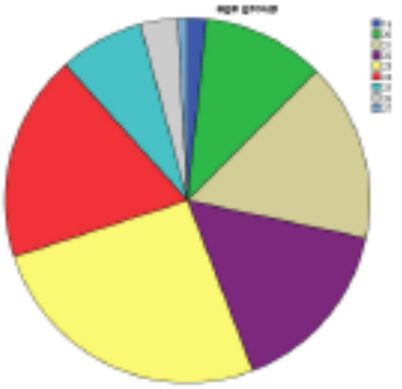

Fig 1: Age Group Distribution

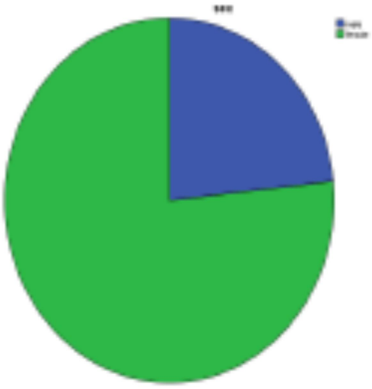

Fig 2: Sex Wise Distribution

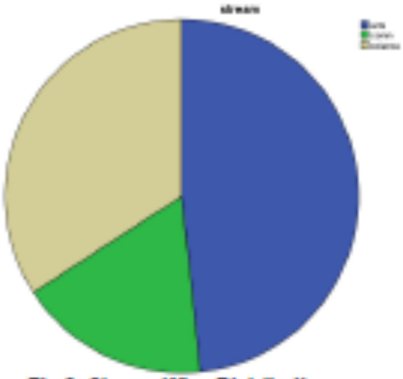

Fig 3: Stream Wise Distribution

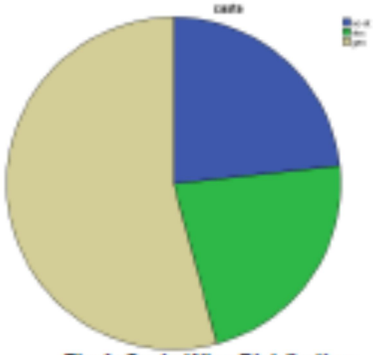

Fig 4: Caste Wise Distribution

Researcher used stainnie score to find out low and high socio economic status pupil-teachers as shown in Fig. 5.

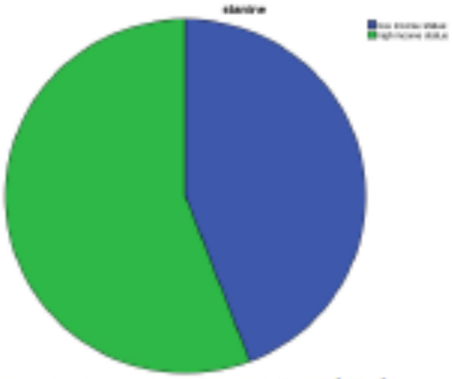

Fig 6: Low-High Socio Economic Distribution

Relation of age group, sex, caste and stream with socio economy status (SES, Low and High) shown in Fig. 6, Fig. 7, Fig. 8 and Fig. 9 respectively.

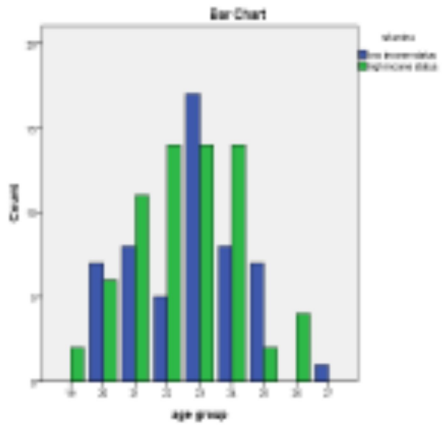

Fig 6: Age V/s SES Distribution

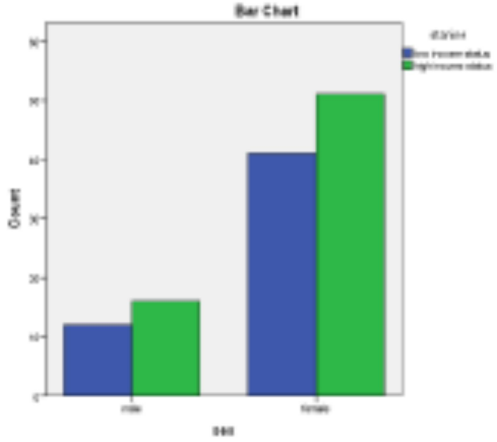

Fig 7: Sex V/s SES Distribution

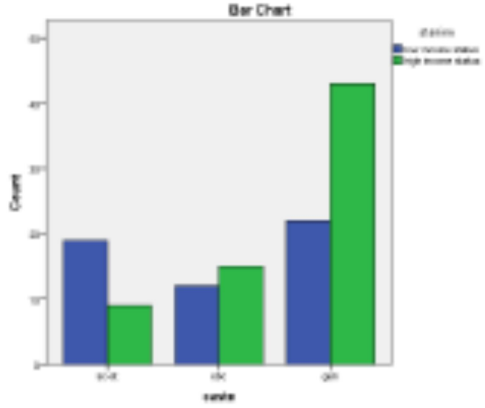

Fig 8: Caste V/s SES Distribution

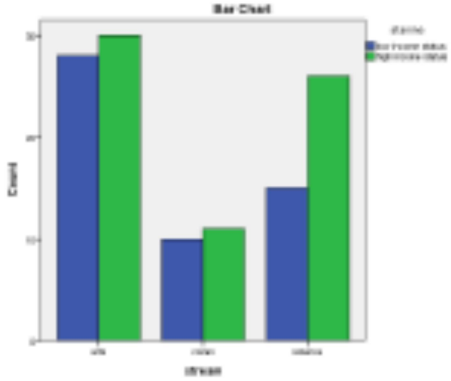

Fig 9: Stearm V/s SES Distribution

Analysis using T test

Investigator used standard test of environmental awareness to find out knowledge of environmental awareness of pupil-teachers. Treatment has been given by social sites for 2 months. Table 1 show the detailed analyses results.

Table 1

Social Sites	Paired Samples Statistics				Paired Samples Correlations		Paired Samples Test							
							Paired Difference							
Post Env. Score	Mean	N	Std. Devi.	Std. error devi.	Corr.	Sign.	Mean	Std. Devi.	Std. Err Mean	95% Confidence Interval of the Differences		t	df	Sig. (2-tailed)
										Lower	upper			
Low SES group	40.2	30	4.31	.787	.223	.23	1.23	6.956	1.27	-1.36	3.83	.97	29	.340
High SES group	38.9	30	6.50	1.18										

Results and Findings

From the paired t test it is revealed that the result of analysis is not significant with t value 0.971 and p value 0.340. It signifies that their is a difference in the environmental awareness score between low Socio economic status pupil teachers having rural background with the pupil teachers of high Socio economic status. The environmental awareness outcome of Low SES (40.20 ± 4.310) and High SES is (38.97± 6.505). It show that pupil teachers of Low SES having better environmental awareness with mean 40.20 and Standard deviation 4.310 as compare to pupil teachers of High SES with mean 38.97 and standard deviation 6.505.

Suggestions

Knowledge of Environmental has become necessity in progressing world. Large number of the population in India is residing in villages. Rural pupil-Teachers are very close with nature. As result of modernity rural pupil are getting attract towards more comfortable life. More comfort means maximize the use of natural resource and ultimately depletion of environment. Social sites can play effective role for it. Rural pupil-teachers can get knowledge of new agriculture techniques. They can use different social sites for environmental knowledge that is basically made for it .Plantation, save rivers, say no to plastics, waste management are big issues are discussed on social sites. Many groups are activating on facebook to aware general people about environment. Social sites can be used to start campaign for plantation and many more environmental knowledge in villages, as it is being used for many places. So it is government responsibility to provide good internet connectivity to stop the migration of rural from villages to city.

Conclusion

It has been found from table1 environmental score and t –test that low socio economic status pupil-teachers are more aware about environmental awareness than high socio economic pupil-teachers. Social sites play significant role in developing environmental awareness .Result shows that low socio economic pupil-teachers are linked with nature so they are more near to nature but high socio economic status pupil – teachers are attracted towards urban area so they are comparatively less inclined towards environment.

Acknowledgment

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