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Understanding the Basics Features of Environmental Science: Field Trip

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ABSTRACT:
In the study of environmental science, field visits may be quite beneficial. This chapter examines the importance of field excursions in teaching environmental science, emphasizing how they may improve students' knowledge, useful skills, and enjoyment of nature. It talks about the several aspects of a productive field trip, such as location selection, practical activities, and participatory learning. The purpose of the chapter is to highlight the value of field excursions in creating environmental stewardship, encouraging experiential learning, and motivating the subsequent generation of environmental scientists and conservationists.

KEYWORDS:

Environment, Field, Resources, School, Trip.

I. INTRODUCTION

Educationists now understand that the surrounding environment is a fantastic curricular laboratory that offers very dynamic, fascinating, and real-life learning chances. Every Environment has tales of people and resources intertwined into the pattern of national development in its historical records. Every environment has basic social issues and processes that either work for or against it. As we learn more about societal issues, they take on physical forms in our own neighborhoods [1]–[3].

As a result, the Environment offers specific information on geographical, political, industrial, and cultural facts and linkages. Due to the fact that these facts are concrete, visible, and comprehensible, the school should go outside, treat the environment as a laboratory, learn about its resources, comprehend its culture, recognise its issues, and provide answers. It should provide opportunities for experience for a kid to learn about the industries and farms, social agencies and museums, council meetings and union meetings, via the use of resource persons, field excursions, environmental assessments, service projects, etc.

During the educational process, the environment and the school must cooperate and pursue a same goal. Education will be lifeless, unreal, and unable to have any lasting influence on children's minds and characters without this live, dynamic interplay between the two. Social goals, manufacturing methods, knowledge, and culture have a significant impact on how the environment lives. Lacking the ability to adapt its programmes to these changes and stay up with them, the school devolves into an obsolete, retroactive organisation.

A modern school cannot exist as an island in the middle of nature [4]–[6]. The environment must benefit from it and must also help to sustain it. The two-way traffic needs to be not only feasible but also enjoyable and beneficial. Let us learn about the environment, make use of it, help it, and incorporate it into the educational process. Environment, please Relining the school to the environment and reestablishing an intimate contact with the environment should be where education reform begins.

Methods of Utilizing Environment Resources

The instructor may primarily utilize environmental resources in one of two ways:

- **i.** Taking the school to the Environment.
- **ii.** Bringing some of the Environment to the school.

Methods of taking school to the Environment

Children's emotions may be communicated to most effectively via images and sounds rather than words. Trips to the field, surveys, camping, volunteer work, and other activities may do this.

1. **Field trips**

Without a field trip, instructional programmers for environmental education are incomplete. Field excursions may be made to gather knowledge, alter course, pique curiosity, foster appreciation, advance principles, and take in new experiences. They may help to start a unit of study by contributing to its core or by adding the final touches. They provide first-hand information while verifying and enhancing second-hand information. They provide a way to hone observational skills, test theories, and complete all the necessary tasks for environmental science [7], [8].

Field Trip Types

1. Complicated tasks These need for complex transportation, all-day preparation, and extra adult assistance. These longer excursions to historical locations and noteworthy occasions outside of the immediate area offer fascinating locations to investigate for problem-solving and project execution, as well as beneficial opportunities for observation of the commonly scheduled visits to factories, radio stations, newspaper plants, wholesale and retail establishments, libraries, and the like.

2. Simple tasks that may be started right away include a walk around the block to observe how nature and people are preparing for winter, a trip to a nearby farm, a stroll through the park to collect some necessary specimens, etc.

Uses for Field Trips

- **i.** Imagination and learning are stimulated via sensory sensations, such as the taste of fresh milk, the dazzling heat of a glass furnace, the metallic buzz of a weaving room, and the sight of actual objects in the real world of grownups.
- **ii.** Integrating classroom instruction. This is accomplished by making students aware of the arbitrary nature of conventional subject-matter divides and giving them the opportunity to see facts and forces in the context of their regular interactions with other people in real communities.
- **iii.** Field outings may help students realize the environment in ways other than via purely academic means. They could learn to act with vividness by getting to know, see, and feel their environment as a way of life.
- **iv.** Learning the skill of cohabiting with others. Using the same mode of transportation, lodging in the same place, dining at the same table, and having similar experiences all assist with marking. Characteristics and flaws become apparent.
- **v.** Broadening our emotional and intellectual horizons. This may be accomplished by introducing us to others whose behaviour, traditions, way of life, viewpoint, and hobbies may be quite unlike from our own.

Procedure for a Field Trip

1. Planning

A field trip should be thoroughly prepared, professionally organised, and carried out. Allowing our students to immediately reconcile with life in the round necessitates a preamble and follow-up linked to and extending beyond classroom learning. The focus should go much beyond going to places and seeing things.

2. Objective

Each student should thoroughly understand the purpose of this trip and how it relates to his own experiences and actions in the classroom, as well as how the instructor feels about it.

3. Guidance

Appropriate audio-visual aids may be employed to provide initial inspiration as well as a broad orientation to the sights that will be encountered throughout the journey. It will be ideal if the instructor provides sample questions that students may use as a starting point when speaking with environmental leaders about the many facets of environmental life. Major goals should be made clear and explicit.

4. Information

The instructor should be well-versed in the optimum route, bus stop provisions for guide service, sights the group should see and do, phases or features of the resource centre that should be emphasised or disregarded, meal arrangements, amount of time required at each stop along the way, etc.

5. Definite Follow-Up Activities

These are also a crucial component of any well-planned journey Using Environment Resources in Teaching Environmental Science. Reading about the locations visited in books, creating scrapbooks, writing reports or detailed descriptions, or participating in panel or forum debates are some examples of these activities.

6. Evaluation

Trips should be assessed in light of the initial objectives. Mistakes and problems should be identified, and the group's behaviour should be discussed. The people in question should get the thank-you notes.

II. DISCUSSION

Environment Surveys

Senior students benefit much from environment surveys' tremendous educational value. They provide a structured and methodical approach for precisely determining social or physical facts.

- **i.** Surveys help people get a thorough awareness of how environmental structures and processes function, interact, and are complicated.
- **ii.** They are very helpful in fostering in-depth understanding of crucial environmental issues that need to be addressed.
- **iii.** They provide opportunities for student involvement in environmental matters.
- **iv.** The students get instruction in democratic citizenship via such positive involvement.
- **v.** They grow to understand how interconnected people are and how effective individual and group existence depends on widespread civic collaboration.
- **vi.** The state of the current circumstances and how it is set up for superior citizenship may be critically studied.

Scope of Environment surveys

- **i.** Any element of the environment that young people find meaningful.
- **ii.** The past history of the community, its social structures, customs, traditions, conventions, rituals, folk customs, songs, and tales.
- **iii.** Students will be interested in environmental concerns, such as those relating to housing, health, sanitation, employment, taxation, and transportation.

Use of Environment Surveys

1. Procedures

Only when environmental surveys are done correctly can they be valuable. Since the greatest results are gained when the investigators have warmed up to issues and seek answers and solutions to topics that have aroused in their thoughts, the actual survey should be preceded by considerable discussion and question framing.

2. Teachers

Before the group begins such excursions, they should have a clear understanding of directions and options. To obtain a sense of the environment, they should spend as much time as possible making firsthand observations of it.

3. The interest of the pupil

The instructor could pique students' attention by connecting the survey suggestion to issues that have an impact on their lives. He has to understand that the poll is based on people's accomplishments, both good and poor. He ought to start with individuals rather than statistics reports.

4. Objectives preparation

- **i.** It is important to be clear about the survey's goal.
- **ii.** A thorough analysis of the issue is required.
- **iii.** The survey's practical bounds should be established.
- **iv.** The methods to be utilised for data collection should be chosen.
- **v.** Data should be validated after collection.
- **vi.** Data collection efforts should be documented for further use.

5. Teacher's attitude

The instructor should always be positive and never say, I've been through all this before, in class. In the spirit of collaborative research, the instructor and students should collaborate. An environment survey shouldn't be performed by one person. It should be continued cooperatively by the whole team on an ongoing basis, year after year. By gathering information, the students and instructors may speak with local specialists, senior citizens, and social workers [9], [10]. It is possible to interview many influential people and visit interesting locations.

6. Resources

The survey's resources should be organised logically into categories such local businesses, historical sites, governmental organisations, civic centres, geographically significant locations, people to speak with, culturally significant individuals, and others.

School Camping

A stronger interaction between people and natural resources is required as a result of the migration to cities and the fast pace of contemporary life. The camp, often known as a school in the woods, is a component of the wider Environment. The outdoors, both within and beyond the camp, provides a wealth of opportunities for real education. Opportunities to study, work, and play close to the local natural resources pique interest in and concern for the preservation and responsible use of the environment's natural resources.

Advantages of School Camping

1. Learning by Doing

School camping promotes hands-on learning opportunities and offers prospective real-world scenarios that are favorable to the best teaching techniques, such as learning by doing, seeing, listening, testing, tasting, and experiencing with the least amount of teacher and resource leader responses.

2. Miniature environment

With the campers and instructors acting as citizens, the school camp is a tiny environment.

The processing, preparation, and consumption of food, sanitation, sewage disposal, housing health practises, social and cultural disparities, and the process of representative governance are just a few of the social issues that the environment faces every day.

3.Democratic Group Dynamics

The students' camping experience, which promotes democratic group living, helps them develop positive character traits. It allows students to comprehend their physical surroundings and make intelligent use of the environment's resources. It offers more actual circumstances, such as workplaces, where many of the skills and attitudes learned in class may be put to use.

4. Duration and Types

The length of the camping trip will depend on the students' ages. A one-week trip, a two-week trip, or a longer trip may be taken while in school. The sorts and patterns of camping will also change depending on the students' ages. The campers may engage in appropriate activities that illustrate local folklore and history, Indian life, transportation, soil erosion control, excavation of artefacts, etc.

5. Environment Service Project

Students may engage in individual activities of a holistic mental, physical, emotional, and spiritual character as part of their civic welfare. Service-projects have educational value for both the student and society.

Service project examples

- **i.** Social assistance to the town's underprivileged residents. Cleanliness, anti-mosquito efforts, washing small children, and caring for the ill are all included in this.
- **ii.** Jayanti, Republic Day, Independence Day, and the anniversary of Gandhiji's passing. You might do projects like tree planting, road upkeep and platform construction, drain cleaning, and manure pit and drain digging.
- **iii.** Care for animals. This may be accomplished by providing water sources, food, and medical assistance.

iv. Village beautification. This may be accomplished by planting trees, constructing avenues, cleaning up public spaces like streets, temples, and sewers, among other things.
v. Relieving Groups. When there are natural disasters like floods, epidemics, fires, earthquakes, etc., relief teams made up of instructors and students may go out to help the environment. They could go out of class to plant trees in remote areas of the environment. On fairs, festivals, and election days, they might benefit the environment. They could start anti-mosquito programmes, care for the ill, etc., or raise money for the poor's welfare.

Environmental Service Projects' Benefits

i. They transform education from the tedious practise of having each generation follow in the footsteps of the one before it, to sincere but enjoyable experiences in communal wellbeing.
ii. They assist in improving the students' standing. Their overall development and progress are encouraged. Because they divert attention from current personal issues to universal issues that affect all peoples, service programmes help develop global citizens from local youth.
iii. Children want engagement, which may be satisfied via experience.
iv. Walls in classrooms should be removed. In order to handle the crises that could often afflict the environment, the school and environment must work together.

Use of Environmental Projects with Caution

i. The school should not engage on service initiatives that are very difficult, expensive, risky, complicated, or sensitive. Environmental surveys and other informative learning exercises should be used to find these.
ii. The students and the environment may benefit from programmes such as education weeks, clean-up weeks, youth weeks, projects in public safety, civic beauty, health, agricultural and industrial development, local history, and resource preservation.
iii. Through the use of such Environment service programmers, teachers with patience and vision will accomplish much to deliver practical, real-world, and democratic education.

III. CONCLUSION

Field excursions are essential for teaching environmental science because they provide students real-world experience and transferable abilities that are impossible to learn in a traditional classroom setting. The importance of field visits in promoting knowledge, awareness, and involvement with the natural world has been covered in this essay. Students may see and engage with a variety of ecosystems, habitats, and environmental processes via field excursions. Students may watch ecological interactions, get a deeper grasp of subjects covered in the classroom, and enjoy the complexity and beauty of nature via firsthand observation. Students are able to use scientific techniques, gather data, and perform field experiments via hands-on activities on field trips. Students are better prepared for future professions in environmental science and related subjects because to these practical experiences that improve their critical thinking, problem-solving, and data analysis abilities.

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