

Experimentation & Practical Work

INTRODUCTION

Experimentation/Practical work is crucial for the understanding of the intricacies of Environmental Studies. Experimentation plays a key role in the overall development of the child. Engaging in various practical work help enhance knowledge, ability and skill of the child. Experimentation/Practical work is just like learning by doing, by this method child develops an instant understanding of the concept in the long run and by practical method difficult task can be broken into parts and can be understood by grasping in-depth of the topic. For example- abacus to understand mathematics concept. Experiments are not only performed in laboratories but can be performed in the classrooms, fields and playgrounds. It is both indoor and outdoor activity.

IMPORTANCE OF EXPERIMENTATION/PRACTICAL WORK

1. Helps in the overall development of the child. For example:- In order to teach child unity experiments helps a-lots teacher can divide the class into groups and then assign each group particular task to perform and then among group assign a particular task to be performed by students by this method students develop the spirit to work together and unity and works towards to achieve the goal of the task assigned and strive to complete within the time frame.
2. Helps the child to get exposure to real-life experience. For example:- In order to teach the student about healthy food we can engage them into activities of sprouting pulses and grams as sprouting is the natural process by which seeds germinates by keeping them into the water for one night and then in the morning dry out water and then keeping pulses into clean cloth for 6 to 8 hours and then take out pulses afterwards we will observe that a small whitetail will appear, this experiment helps develop curiosity among children and they will try this experiment in the future also and in the same time teacher should let the student know about benefits of having sprouts helps in the growth and development of the body.
3. Practical work helps the child to get know about their surroundings. For example:- visit police station let the student know about if something wrong happens where to report it is just an example to make the child know about the role of police in our lives, visit the red fort and India gate also let the child get exposure to places to visit in Delhi.
4. Helps in developing the self-confidence in them. For example:- when they are asked to work in a group than they have no fear of getting fail i.e. group dance and group singing competition helps in the development of the additional co-curricular activity.
5. Helps in the development of logical thinking among child. For example:- when a student takes part in the play competition where they perform singing, dancing and dialogue speaking.

ADVANTAGES OF EXPERIMENTATION/PRACTICAL WORK

1. Helps in building trust, confidence, interest and relationship the surrounding - family, friends, society and culture.
2. Helps in the generation of the spirit of confidence and improvement of communication skills.
3. Helps in the clarity of the subject taught through experimentation method.
4. Helps in building knowledge pool as practical work is performed for each topic i.e. shapes can be taught through bringing material from outside and then filling them in an object like sand and cement fill in a cone to let the student know about the area, perimeter concept.
5. Helps in the qualitative and quantitative development of the child.

PRINCIPLES OF EXPERIMENTATION/PRACTICAL WORK

1. Principle of teamwork
2. Principle of quality
3. Principle of effectiveness and efficiency
4. Principle of growth and development
5. Principle of work-related activity

INSIGHTS INTO EXPERIMENTATION/PRACTICAL WORK

Experiment refers to performing activities in an orderly manner particularly to achieve in future, experiment without is unfruitful, proper consideration should be made while performing experiment either it is inside or outside the laboratory. The experiment can be performed by either teacher or student keeping in view the goal to be achieved. Experiment/Practical work has been promoted by many educationists in the past i.e. Play Way Method by Froebel now will understand the relationship of play way method with experiments.

- Play way method is based on Experiment Based learning; it generates creative ideas among students.
- Play way method relates experiments with life-oriented objects as it considers school as a second home to the child.
- As play way method suggests the needs of the children can be fulfilled and increased via practical work
- Practical work helps to bridge the gap between the children and the teachers.
- Practical work creates a healthy learning environment.
- Practical work helps to enhance the memory of the child.
- Practical work provides opportunities to all children to participate in and projects their innate abilities and talent.

ROLE OF THE TEACHER IN EXPERIMENTATION/PRACTICAL WORK

1. The role of the teacher plays a major role to make experimentation a successful project. The teacher has to plan the initial stages of Experimentation/Practical work keeping in mind the need of the children and to generate interest of the children so that children also contribute religiously into experiments and helps in making it successful.
2. The teacher should use proper measures to fulfil the needs of every child and act accordingly in the classroom.
3. The teacher should itself has a vast knowledge of the subject on which practical/experiment to be performed.
4. The teacher should be familiar with the tools and types of equipment to be used in the experiments.
5. The teacher should play an active role at all stages of experiments and should interact with the students to maintain their interest in and out in the experiment.