The Positive Aspects of Arranging Science Exhibition

(Case Study of Jugal Higher Secondary School)

Basic Information

Jugal Higher Secondary School,

2 No. Bamunpukhuri, Ghatua,

Sonitpur, Assam, 784149.

Introduction

With the gradual decline in the number of students passing in the subject 'Science' in the school, it was evident that immediate measures to curb this situation need to be taken from our end to put the things in place. In this regard our student's lack of attention as well as interest in academic and co-curricular activities proved to be major setback for us.

To address this challenge and to bring out the scientific attitude in our pupils, Science exhibition has been organised in our school since 2018. This was done to provide experimental guidance towards developing critical thinking, collaboration, innovation, creativity, develop scientific knowledge etc. Thus, our school, Jugal Higher Secondary School began the journey of science exhibition from 2018 which we have been following every year without fail. This year marks eight successful year, we aim to motivate our pupils to develop scientific attitude and following this path we hope to curb various superstitions prevailing in our society.

Background

Our School primarily catering to under resourced pupils who are mostly first-generation learners has a rural location in Sonitpur District of Assam. Mostly the bulk of students come from extreme poverty and underdeveloped areas where basics of science are not followed or believed. Superstitions prevail everywhere in these areas and the only way we could think to put things in place is to show these kids the wonderful aspect of science. Learning about the various challenges from our conversations with the pupils we felt that the pupils needed something beyond the curriculum to inspire them and break the stigma of illogical superstitions. With this premise in mind, we decided to arrange the science exhibition which will inculcate scientific reasoning among pupils. Now, the vision which has now become a much-awaited annual event culminates into the implementation of the exhibition in the school premises every year



Fig 1: Entrance Gate

Objectives

The primary and secondary objectives focused on while executing the exhibition and how they were integrated within the tasks designed are detailed as follows-

Primary Objectives

- To encourage scientific curiosity, creativity and a deeper understanding of science through hands-on experience and project base learning.
- To spark students' natural curiosity and enthusiasm for science and technology.
- To encourage students to think critically, analyse problems and develop a scientific mind set for problem solving.
- To promote scientific attitude among pupils and motivate scientific learning.

Secondary Objectives

- To improve communication and presentation skills.
- To encourage team work and collaboration.
- To support academic learning.
- To engage parents and local community in the learning process.
- To provide a platform for recognition of students for their creativity and hard work.

Challenges

We as a team faced various challenges in the pre, during and post implementation phases of the project. All these challenges did up to hinder the natural flow of the plans. However, mitigation of the problems through innovative solutioning gave results.

Parents involvement was a challenge for us. Convincing parents to the outcomes being envisioned and outlining the objectives proved to be quite productive.

Getting the School Managing Committee on board was done by outlining the benefits of science exhibition for students in a SMDC meeting.

To ensure mass student participation, we tried to present the ideas related to science exhibition in an engaging and entertaining way.



Fig 2: Guardian Meeting



Fig 3: Guardian Meeting

Initiatives

The initiating step into the project was arranged in the form of a meeting. In this meeting, the basics of the project were outlined. Students were asked to make models and perform science experiments for which the school would provide the initial capital. An exhibition would be organized for them to showcase their models and experiments. Students were informed that they would receive continuous support and cooperation from all the teachers so that they can rethink their ideas for greater success.

Our students went through a phase of discussions, deliberations and brainstorming among the classmates and their teachers. Soon they came up with ideas which got executed over time. Rapid increase in attendance and attention in class was observed. It resulted in increased communication and classroom interactions. With increased participation of students, the teachers also got involved in helping students to make their ideas and models even more attractive.

The exhibition is held at a selected date decided by the managing committee. Invited guests, SMDC members, parents pay visit to motivate the innovative minds of the pupils. Students elaborately describe their ideas behind the tasks taken up by them. With all these being executed, students get appreciated by the invited guests and others. This builds in them self-confidence and motivates them to build a scientific attitude.

Visible Outcomes

- Increased student attention and attendance:

  Improvement in overall attendance of the students was the outcome we teachers welcomed with open arms. The reluctancy of students towards science as subject were replaced with enthusiasm for scientific activities and both participation and attention in classroom activities improved consistently.

- Skill development:

  Creativity, critical thinking and collaboration were inculcated and promoted among the learners by means of various science-based tasks.

- Improvement in Science concepts:

  Earlier it was observed that several students in fact a vast number of students failed in the subject science. But after the successful organization of science exhibition every year it has been observed that many such have done extremely well in the subject science.



Fig 4: Inauguration of School Magazine: Jugaljyoti



Fig 5: Scout & Guide Team



Fig 6: Plantation Drive