

Project Completion Report

(Outreach Programme in Rural High Schools by B.N. College, Dhubri)

Catalysed and Sponsored by ASTEC, DST, Govt. of Assam

Year 2019

1. Name of College: Bhola Nath College, Dhubri

2. Profile of the selected schools

• Ambia Memorial High School, Jhagarpar, Dhubri, Assam

The school is situated about 5 K.Ms away from the college. It falls under Jhagarpar Gaon Panchayat. It has a total enrolment of about more than 1000 students and about 400 students studying in class IX and X.

• Motirchar High School, Howrarpar, Dhubri, Assam

The school is situated about 5 K.Ms away from the college. It falls under Motirchar Gaon Panchayat. It has a total enrolment of about 750 students and more than 200 students studying in class IX and X.

• Bhassani Char High Madrassa, A.M.Co. Road, Dhubri, Assam

The school is situated about 6 K.Ms away from the college. It falls under Bhassani Char Gaon Panchayat. It has a total enrolment of about more than 400 students and about 200 students studying in class IX and X.

• Kismat Hasdaha High School, Kismat Hasdaha, Dhubri, Assam.

The school is situated about 14 K.Ms away from the college. It falls under Kismat Hasdaha Gaon Panchayat. It has a total enrolment of about more than 695 students and about 211 students studying in class IX and X.

3. Abstract:

In pursuance of the present scheme of ASTEC, DST, Government of Assam, four numbers of rural High Schools were selected and the programme was started in the month of May, 2019 and continued till the month of August, 2019. The present project was aimed at to motivate the students of Class IX & X to study science subjects. The programme was formulated by adopting various means like popular talk, demonstrations with working models, posters, live specimens etc. so that the students become interested in science subjects and also the fun behind the scientific phenomena and facts. The programme stimulated the students quite effectively to interact with the resource persons for their queries. The programme has also given the students the opportunity to visit the science laboratories and the central library of the college. In addition a motivational programme was arranged for the science teachers of the adopted schools under this project.

4. Rationale

A preliminary survey was conducted by the college in all the four selected schools before applying for the project to the ASTEC. The interaction with the school authority resulted into the discovery of the facts that only about 5-10% of the successful HSLC candidates from the schools opt for Science stream education in their 10+2 Level. It was also being known from the school teachers during the interactions that there exists fear and phobia for Science Subjects prevailing among the students.

In view of the prevailing scenario, the present project was aimed to achieve the objectives as follows:

- To motivate the young minds i.e. the students of Class IX & X and attract them towards the pursuit of science.
- To demonstrate various experiments under the prescribed curriculum to have clear knowledge and broader perspective of science.
- To make science subject more interesting and to convey the fun behind the scientific phenomena.
- To motivate the Science Teachers for better and effective class room deliberation.

5. Goals and objectives achieved

- ✓ Most of the target students are motivated to draw their interest on the science subjects (Ref: Students Feedback Analysis Bar Diagram)
- ✓ It has helped most of the students in breaking the ice and come out of their shell. (Ref: Students Feedback Analysis Bar Diagram)
- ✓ The curiosity shown by the students during the demonstrations by the resource persons is a sign that students are getting interest in science.
- ✓ The simple and important questions arising out from the students during the program is a sign of scientific thinking by the students.
- ✓ Motivating the school teachers that their students can also excel in science subjects.
- ✓ Visit to the college by school students helped them in familiarizing with the environment of a Higher Educational Institution. (Ref: Students Feedback Analysis Bar Diagram)

- ✓ Exposure to the Science Laboratories helped the students to observe different experiments in the lab and get interested in science. (Ref: Students Feedback Analysis Bar Diagram)

6. Strategy

A strategic programme was prepared and the same was intimated to the adopted schools well before the programme was initiated. It comprised the involvement of school and the college to successfully complete the programme. The college undertook lecture cum demonstration classes in the schools during the programme. Each school had such lecture cum demonstrations on topics under Physics, Chemistry, Botany and Zoology for Class IX & X. In addition a popular talk was delivered in each school under this programme. Moreover the 50 numbers of students of Class IX & X from each school were invited to the college for visiting the science laboratories and the central library of the college. In each programme there was synergic type of interaction between the school students and the resource persons.

Following are the programmes and their schedules:

7. Programmes undertaken under the project:

7.1 School College Pre-Interaction Meeting:

A School College Pre-Interaction Meeting was held today on 4th May 2019 at the Digital Hall of B.N. College, Dhubri under the Chairmanship of Dr. Dhruba Chakraborty, Principal and in the presence of Dr. Mir Shahadat Ali, President and Prof. Nagendra Nath Roy, Member of Governing Body of the college (Images 1 & 2). Dr. Chakraborty, Chairman of the meeting stressed on the successful completion of the programme so that the very aim of the programme is attained. The meeting was open for interaction between the school teachers, the departmental coordinators and other science faculty members of the college who were present in the meeting. There was a good interaction between them regarding the different activities under the programme and their smooth implementation of the said programme.



(Image 1)



(Image 2)

7.2 Lecture cum demonstration class for popularization of Science:

The college has undertaken lecture and demonstration classes in all the four selected schools during the month of May, 2019 under the programme (Images 3, 4, 5, 6, 7 and 8). A total of 32 (Thirty Two) lecture cum demonstration classes for the students of IXth and Xth standard have been undertaken in the schools. The teachers of the college had taken 8 numbers of lectures cum demonstrations related to the subjects viz., Physics, Chemistry, Botany and Zoology in each school. As many as 1570 numbers of students belonging to the four schools were benefitted in the programme. The students took active participation in the interaction sessions. Following faculties of the college have acted as the resource persons in the lecture cum demonstration programme,

- **Department of Chemistry:**
 1. Dr. Mausumi Das, H.O.D.
 2. Mr. Sahidul Isalm
 3. Dr. Malabika Borah
 4. Dr. Murshida Karim
- **Department of Physics:**
 1. Mr. Edal Hussain
 2. Mr. Rafiul Karim Mollah
 3. Mr. Nilamjyoti Dutta
- **Department of Botany:**
 1. Dr. Nabami Basumatari (H.O.D.)
 2. Dr. Piyush Kr. Mishra
 3. Mrs. Manashi Baruah
- **Department of Zoology:**
 1. Dr. Bhabesh Nath (H.O.D.)
 2. Mrs. Mitali Ghosh Paul
 3. Dr. Santanu Sarma
 4. Dr. Samuel Sheikh (Coordinator)



Image 3



Image 4



Image 5



Image 6



Image 7



Image 8

During demonstration, the college teachers used various models, charts and experimental set ups in order to draw interest of the students towards science. The College teachers, during their visit to the schools, demonstrated the models and experiments to the science teachers of respective schools so that they become familiar with those and also they can repeat and continue such demonstration to the students in their future schedule of classes (Image 9, 10, 11 & 12).



Image 9



Image 10



Image 11



Image 12

7.3 Popular Talk organised in the schools:

A Popular Talk for each participating school is organised under this programme in the month of June, 2019. The resource persons delivered a resourceful talk addressing the teachers and students of the school. They used ICT facilities to draw attention of the audience and presented their talk by way of PPT Presentation covering the day to day scientific phenomena happening around us. There was a free and fruitful interaction between the students and the resource person during the Interaction

Session of the Talk. Students were delighted to know the facts behind the daily occurrences of scientific phenomena around us (Image 13, 14, 15, 16, 17, 18, 19 & 20).



Image 13



Image 14



Image 15



Image 16



Image 17



Image 18



Image 19



Image 20

7.4 Motivational Programme for School Science Teachers

On 5th of August 2019, a motivational programme for the school science teachers was held at the college premises. The programme was aimed to interact with and motivate the science teachers of the schools to achieve satisfactory result in science subjects among their respective students. (Image 21)



(Image 21)

7.5 Students' Educational Visit to the college

About 200 numbers of students from the schools visited the college science laboratories and the college central library on 21st and 22nd August 2019. The students were encouraged to become interested in science education by demonstrating the different instruments and facilities available in the college for science stream. (Image 22 - 26)



(Image 22)



(Image 23)



(Image 24)



(Image 25)



(Image 26)

7. Resource materials submitted to the schools:

A good number of resource materials covering the topics of science subject of IXth and Xth standard are procured under the assistance of this project. The same have been submitted to the schools so that the school teachers of the respective schools can make the science classes more interesting for the students during their regular schedule of classes. The materials comprise Working models of Physics, Molecular models of Chemical Compounds, Biological models and a numbers of charts related to topics under Physics, Chemistry, Botany and Zoology.

Following is a list of Teaching Aids submitted to each of the four participating schools:

Table: List of Teaching Aids submitted to the schools

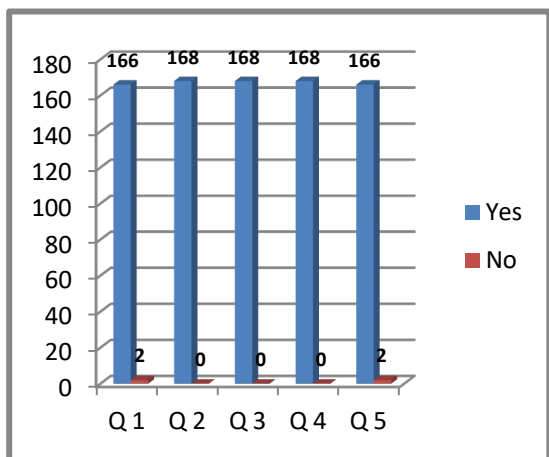
Sl. No.	Item	Qty	Sl. No.	Item	Qty
1	Chart of Periodic Table	1	15	Chart of Eye and Defect	1
2	Model of Allotropes of Carbon (Diamond)	1	16	Chart of Electric Generator	1
3	Model of Allotropes of Carbon (Graphite)	1	17	Model of Typical flower	1
4	Electric Motor	1	18	Model of Plant cell	1
5	Working Model – Mutual Induction	1	19	Model of Animal Cell	1
6	Electric Generator	1	20	Chart of Animal Diversity	1

7	Chart of Newton's Law	1	21	Chart of Circulatory System	1
8	Chart of Motion	1	22	Chart of Kidney, Skin and Excretion	1
9	Convex Lens	1	23	Chart of Deficiency Diseases of man	1
10	Concave Lens	1	24	Chart of Digestive system of Human	1
11	Convex Mirror	1	25	Chart of Plant Kingdom	1
12	Concave Mirror	1	-	-	-
13	Bar Magnet	1	-	-	-
14	Prism (50X50 mm)	1	-	-	-

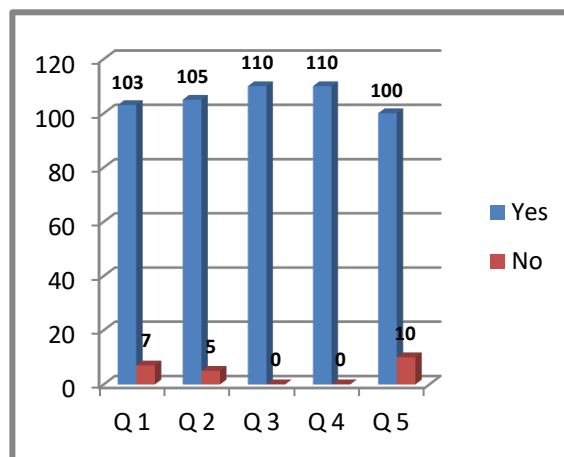
8. Innovative ideas employed:

- The scientific phenomena and experiments covering their syllabus were earlier taught in a stereotyped fashion by the teachers but through the programme the resource persons tried their best to demonstrate those with the help of the working models, live specimens etc.
- College students involved for interaction with school students regarding their queries as they are found more freeness and interactive with the college students.
- During lecture/demonstration by resource persons, it was attempted to have a synergic type of interaction in the classroom.
- Students were involved in handling of various instruments and working materials used for practical purposes while visiting the college laboratories.
- Bringing the students to the Semi Automated SNT Library (Central Library of the college) has given them the exposure to computerised library system and their utility.

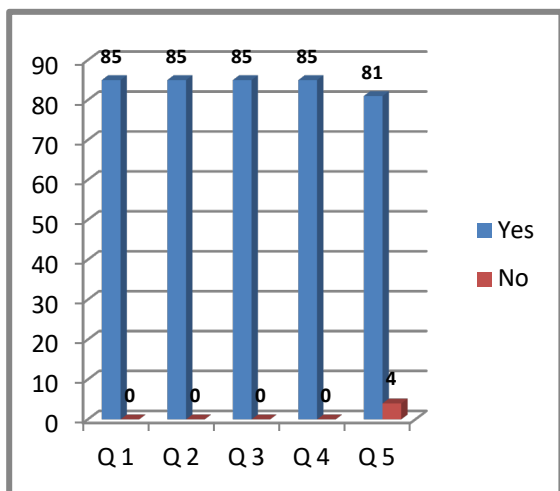
Feedback analysis of students participated in the Outreach Programme (Year 2019)
(Catalysed and sponsored by ASTEC, DST, Govt. Of Assam) by B.N. College, Dhubri



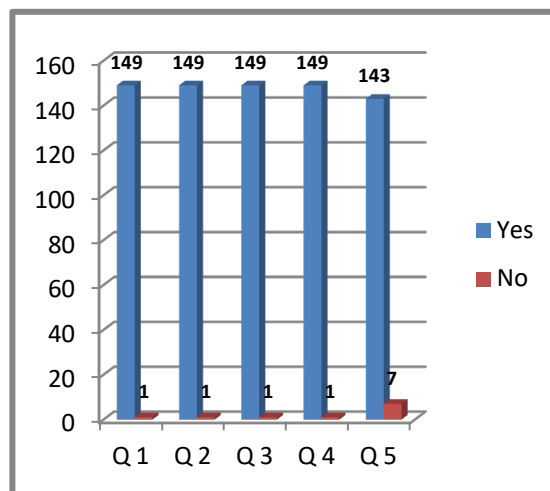
Ambia Memorial High School



Bhasanichar High Madrassa



Motirchar High School

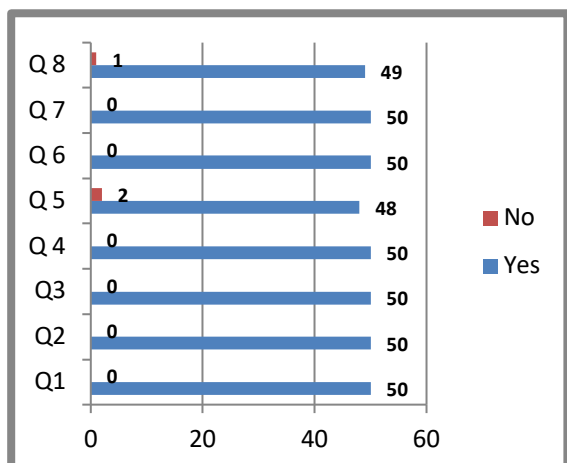


Kismat Hasdah High School

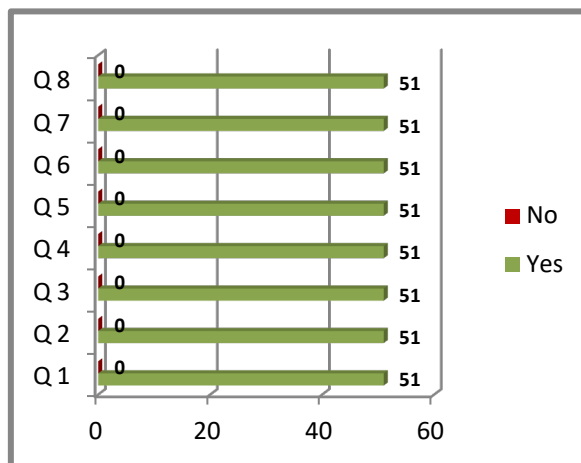
Questions:

1. Whether the Outreach Programme could attract you towards the science subjects?
2. Whether the programme could wipe out you fear towards the science subjects?
3. Whether the resource materials provided in the school under this programme will help you in the learning in future?
4. Whether the resource persons coming from the college could answer your queries up to your satisfaction?
5. Do you have willingness to take science subjects in your future education?

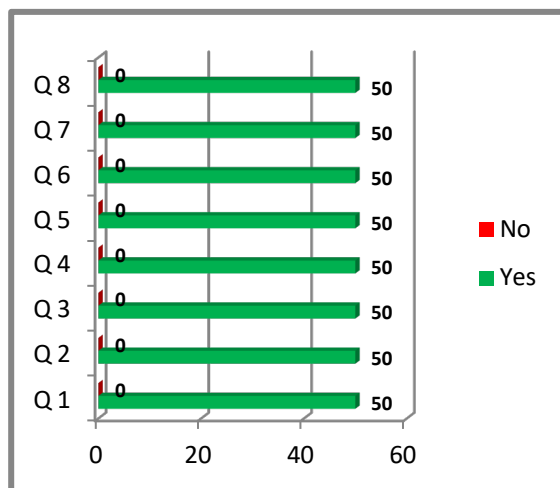
Feedback analysis of students who visited the college under this programme:



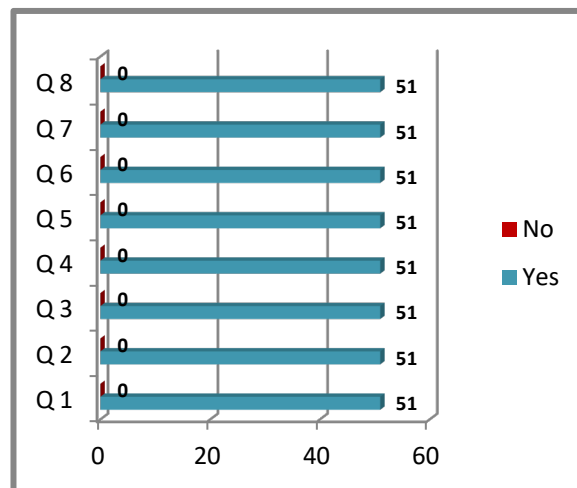
Ambia Memorial High School



Bhasanichar High Madrasa



Motirchar High School



Kismat Hasdah High School

Questions:

1. Whether the Outreach Programme could attract you towards the science subjects?
2. Whether the programme could wipe out you fear towards the science subjects?
3. Whether the resource materials provided in the school under this programme will help you in the learning in future?
4. Whether the resource persons coming from the college could answer your queries up to your satisfaction?
5. Do you feel good visiting our college?
6. Do you feel good visiting the college science laboratories?
7. Do you feel good visiting the college library?
8. Do you have willingness to take science subjects in your future education?
