



# **Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur**

A premier higher education linguistic minority institutes run by  
Sindhi Hindi Vidya Samiti



## **Best practices successfully implemented by the Institution**

### **1. Title of the Practice**

“Book bank and Deposit scheme”

### **2. Objectives of the Practice**

- To help the students of poor and weaker sections of society with reading materials in the form of books.
- To inculcate the habit of reading, thereby enhancing skill of self-learning, interpretation and ultimately leading to improvement academic performance
- To create equal opportunity, for students who can't procure and feel timid
- To create interest in high order learning necessary for studies
- To support the needy students during the examinations by providing resources and achieve completion of graduation, post graduation program

### **3. The Context**

Our institute is situated in a locality where most of the people are from socioeconomically and educationally weaker section. Most of the students belong to educationally backward classes and poor families without educational ecosystem. Essential study material procurement is neither feasible nor in the list of priority. Library books under standard condition have stipulated retention period.

This creates a difficult situation for those students which are dependent on library. To overcome these difficulties, the institute library runs two schemes simultaneously namely Book bank scheme and Deposit scheme to facilitate the students for the uninterrupted studies.

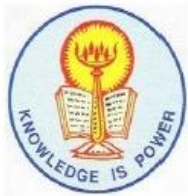
### **4. The Practice**

Focusing on objectives two schemes are encouraged for large scale transformation.

A) Book Bank Scheme: This scheme is for the students who cannot afford to buy books for their education. Through this, students can issue 4 to 5 books at a time without paying any



  
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amount and without a library card. Students can take the benefit of this scheme through the semester. During this scheme many students were benefited by issuing books. Under this scheme. Year wise, date of students that are benefited by this scheme are:

Book Bank Scheme		
Session	Number of Books	Number of Students
2022 - 23	803	267
2021 - 22	560	212
2020 - 21	344	127
2019 -20	435	142
2018 - 19	351	76

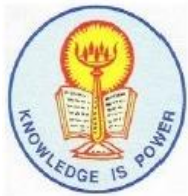
B. Deposit scheme: At the time of exams, students need more books for a longer time. This scheme is implemented 45 days before the exam. This scheme is for all the students of our institution. In this, students can issue books by paying some amount which is refunded after the books are returned. Students can issue up to 5 books at a time in this. During this scheme a large number of students were benefited by issuing books. under this scheme. Year wise, detail of students that are benefited by this scheme are:

Deposit scheme		
Session	Number of Books	Number of Students
2022 - 23	1506	636
2021 - 22	379	178
2020 - 21	384	196
2019 -20	329	187
2018 - 19	244	160

## 5. Evidence of Success



  
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This scheme has been implemented in our college almost from last 35 years. It has been observed that maximum students were benefited from this. Every year many needy students took benefit of the scheme and scored well in university exams. Along with this, it is also helped in inculcating the habit of social commitment, creating educational interest and increasing reading habits among the students. Students also took benefits of the scheme and qualify various competitive exams and other entrance examinations. In such a way, these schemes contribute to the development of students, college and society.

## **6. Problems Encountered and Resources Required**

- Librarian and staff have higher engagement and efforts for the regulation of these schemes.
- The recovery of books, as allotted without the library cards and after the clearance of college, needs extra efforts. This leads to additional calling and follow-up work.
- For the success of the scheme, it is also needed to make students aware about such scheme

## **2. Title of the Practice:**

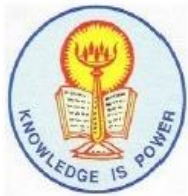
“Vigyan Sanskar Shibir”

## **2. Objectives of the Practice**

- To develop scientific temperament among the students.
- To develop scientific inquiry attitude to design and carry out scientific investigations and evaluate scientific evidence to draw conclusions
- To communicate scientific ideas, and practical experiences in a variety of ways.
- To establish linkages for exchange of scientific ideas between school and college faculty members.
- To inculcate spirit of scientific enquiry and attract people towards science.
- To generate scope for activity-based learning.
- To provide training and extend facilities for creative work for neighboring schools.



  
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- To explain application and importance of science at various stage of the life.
- To induce interest for science in the next generation so that they opt scientific courses in future.

### 3. The Context:

In most of the schools, students learn the concepts of science more theoretically. Lack of practical experience & other limitations, loss of interest in the subject is usually observed. The institute in association with Vigyan Bharti has discussed the problem and decided to organize a camp to facilitate the school students to get the ideas of science through various methods like expert lectures, models, experiments, group discussions, and hands on training etc. Various concepts with appropriate pedagogies to be taught leading interest generation and develop a scientific temperament. The program enables students to think analytically, and creatively to solve problems, and make decisions in scientific manner. We also aim to identify & nurture the bright minds among the student community, who are keen on subject related to science.

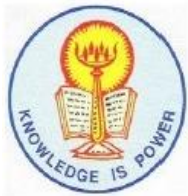
### 4. The Practice:

1. Our college in collaboration with Vigyan Bharti, Vidharbha Pradesh Mandal organized a eight-day Vigyan Sanskar Shibir in the month of April. In this workshop, 198 students of 10 different schools from standard 7<sup>th</sup> to standard 10<sup>th</sup> had participated. About 48 students UG/PG students had volunteered in helping the students in workshop.

Every day, the workshop begins with some guest lectures of prominent scientists, experts from various fields, doctors etc. The lecture very delivered on different topics like petroleum, Solar Energy, human eye, heart, cancer awareness, nano-technology, Environmental science, Astronomy, birds, electricity generation in TPS, electric vehicles, National Calendar, science in sports, weapons used in war and many more. Students gain useful information about different



  
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branches of sciences through active participation in these lectures.

In the second session, our volunteers had presented various science experiments through which they explained the concepts of science to school students in an easy and creative way to make the concepts more interesting and understandable so that students get attracted towards science. Some of the experiments that were carried out were test for adulteration of food, Blood group analysis, Detection of carbohydrates, proteins and lipids from the given sample, determination of lung capacity, measurement of blood pressure by sphygmomnometer, action of salivary amylase on starch, etc.

## 5. Evidence of Success:

In this eight-day Workshop, 198 students from standard 7<sup>th</sup> to standard 10<sup>th</sup> had participated from 10 different schools. The students had shown interest in experiencing the various concepts of science and performing the hands on with the experiments. They have several questions on the topics that were presented in front of them by our students, teachers and experts. Not only the school students but also the volunteers that were participated in the workshop got an opportunity to learn a lot from the process and communicating with the mob and handling the situations. The audience & the mentors had a group discussion. Through the feedback of participants, it was clearly observed that the students had enjoyed and learnt a lot from the workshop and gain interest in science.

## 6. Problems Encountered and Resources Required:

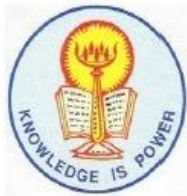
The major problems encountered was, arrangements of instruments and experimental materials since the camp was organized in 7 different schools.

It was also a challenge to train the volunteers of our college to present the experiments in front of school students. We had first selected a team of students of different branches from UG and PG level according to their subject of interests.

The volunteers was allotted specific topics to explore followed by training to perform the experiments and make their ideas very clear about the topic so that they could encounter the queries of school students in efficient and confident way.



  
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## Best Practice 3:

**1. Title of practice:** Career with Chemistry

**2. Objectives of the Practice**

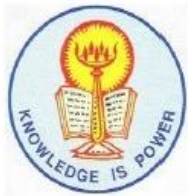
- To provide guidance and assistance for the students to achieve their career goals.
- To create awareness among students regarding available career options in Chemistry and help them in identifying their career objectives.
- To help students share knowledge about themselves by identifying skills, and interests.
- To provide career guidance to the students, to improve their employment opportunities and also create awareness of the jobs for which the students are eligible.
- To make them aware about campus and off-campus placement drives.
  - Identify potential of students and assist them achieving their desirable goals.
- For the enrichment of our subject.

**3. The Context:** We, the faculties of department of chemistry had observed that the students of B.Sc. and even M.Sc. are mostly unaware of most of the career opportunities in the field of chemistry. As majority of the crowd amongst our students are from educational backward families, they get hardly any guidance from their families. So, we found it very necessary to make them aware about various career options that they can have after completing their Graduation or postgraduation with chemistry. We decided to demonstrate them as much as possible options about jobs as well as higher studies and research. For this we decide to organize some workshops, guest lectures as well as discussion sessions with experts for the students.

**4. The Practice:** "Career with Chemistry" is a multi-day workshop series organized annually by the department, designed to help both intra and inter-collegiate students explore various professional paths in chemistry. For three consecutive years, the department has been organizing multi-day workshops on "Career with Chemistry" for both intra and inter-collegiate students. These workshops offer students the opportunity to explore a wide range of career



  
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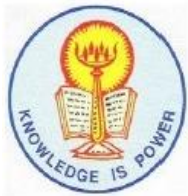


options in chemistry, including opportunities at BARC, lectureships, JRF, Maha Genco, GSI, ONGC, and in Forensic Science. The workshop series aims to inspire and equip students with the knowledge and vision needed to pursue successful careers in chemistry. With this, we first started our journey with a guest lecture by Dr. Sanjay Danao, Director, Danao Green Tech Services organized by Department of Chemistry under the banner of Chemical Society, DRB Sindhu Mahavidyalaya on 24th July 2021 on Zoom Platform as it was a corona period. We name our campaign as “Career with Chemistry”. In the second year of our campaign i.e. 27th and 28th March 2023 we organized a 2-day workshop on “Careers with Chemistry” which demonstrated the various research and career opportunities a student can opt after completing M.Sc. Chemistry. Dr. Nandkishore Karade, Head Department of Chemistry, PGTD, Nagpur presided as the Chief Guest and Key Note Speaker of the function. Other Speakers of the program were Dr. Nandkishor Chandan (Ph.D., Oxford University, England, NET-JRF-CSIR, SET, GATE, NET-ARS-ICAR, Head, Dept of Chemistry, Siddharth College of ASC, Fort, Mumbai), Dr. Prashant Borkar (NET-JRF, SET, GATE, Ph.D. (Hyderabad), Post-doctoral (France) Asst. Prof., Dept of Chemistry, J. B. Science, Wardha), Dr. Mamta Wagh (NET-JRF, SET, GATE, Ph.D. Associate Prof., Dept of Chem, Kamala Nehru Mahavidyalaya), Ms. Nikita Gupta (NET-JRF, SET, GATE, Asst Prof, Dept of Chem, S.F.S.), Mr. Gaurav Hedao (M.Sc., M.Phil., Senior Chemist, Mahagenco), Dr. Vijay Thakre (M.Sc., Ph.D. (Chemistry), Dada RamchandBakhru SindhuMahavidyalaya, Nagpur A premier higher education linguistic minority institutes run by Sindhi Hindi VidyaSamiti Deputy Director, Regional Forensic Science Laboratory, Nagpur). 47 students from 7 colleges participated in the workshop. In third year, A workshop on “Careers with Chemistry” for the final year Undergraduate students on 25th August, 2023 which demonstrated the various research and career opportunities a student can opt after completing M.Sc. Chemistry. A similar approach was also undertaken for the students of the junior college to enlighten them about the various aspects of employments with respect to chemistry on 12th February, 2024.

**5. Evidence of Success (200):** It has been observed that a lot of students get benefit by these



  
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workshops and are successfully placed.

6. . **Problems Encountered and Resources Required** : A lot of time and endurance to organize these programs, selecting appropriate resource persons and to arrange fundings for it.

### Best Practice 4:

1. **Title of Practice:** Recycling biodegradable solid waste through vermicomposting
2. **Goal:** To develop awareness among the students and neighbourhood society for recycling biodegradable solid waste through vermicomposting.
3. **The Context:** Vermicomposting is an easy and cost-effective method for biodegradable waste such as garden and kitchen waste and garbage. It can be converted into vermicompost. Vermicompost is worm manure. The biology of the worm's gut facilitates the growth of fungus and bacteria that are beneficial to enriching the nutrient quality of the vermicompost. This helps in converting biodegradable solid waste into nutritive manure for plants.
4. **The Practice:** Students performed various hands-on science experiments related to Chemistry, Zoology, Botany, Mathematics, and Electronics and activities also included daily science lectures by renowned persons. Students volunteer actively participated in this event.
5. **Evidence of Success:** Students of different subjects of UG and PG level have participated in the program and explained various concepts of science through experiments and hands on. In all 38 students of our college volunteered the event.
6. **Problems Encountered and Resources Required:** Well conduction of experiments requires a lot of apparatus and chemicals.



  
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## Best Practice 5:

**1. Title of Practice:** Knowledge Cloud

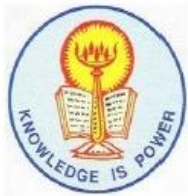
**2. Objectives of the Practice:** The implementation of knowledge cloud should be understood and adapted by the students so as to appreciate original concept. State of the art ideas should be shown to the students. Knowledge about e- waste issues, reuse of gadgets and value addition to environmental issues related to subject, its social implications. Develop habit of out of box thinking, way of perceiving at utility of gadgets and solution. Delivering concise study material for fast and slow-paced learners, simultaneously develop practice of self-learning.

**3. The Context:** Students are always attracted towards recent technology and they have high motivation to learn it. This can be used as stepping stone towards generation of interest, understanding and realizing journey of science. Demonstrations and execution lead to a confidence and trust building between teachers and students. Electronic gadgets although have new features always but are market hungrier. Although operational life can be 20 years, gadgets are used for a span of 4years i.e. 20 of operational life. Major issue faced by researchers is about recycling or refurbishing or converting it into some useful resource. These two aspects, one fact and one challenge have been addressed by designing and implementing this practice.

**4. The practice:** Cloud technology which has not been included in subject curriculum has explicitly covered IT domains and data services. It is vital to give exposure to students that they have a better option for studies and carrier depending on skills acquired. Concepts and types of cloud, i.e. theoretical part was illustrated through presentation by faculty. This was followed by workshop on How to convert old mobile phone (having hotspot facility) in to local cloud for sharing useful information. Concept of uploading, restricted uploading, access to cloud, downloading from cloud, password protection of certain information was also covered in workshop. E waste management and related issues, its environmental and



  
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national concern

Was also targeted in the delivery. The solution was shown first and problems were discussed. A journey of IT was discussed so as to link up curriculum as path to move towards such advance developments. HTTPS file server manager apps were shown and it was demonstrated that APPs in public domain also have some utilities which can be explored by students of electronics. Department hosts a similar cloud which consists of reference material, animation, pictures, presentations, movies that help students in studies including execution of practical. As this experimentation has been originated at our HEI it is not only unique but turned out to be a boost for rising interest in subject. This practice is cost free, only technical knowledge and skilled man power is involved. The cloud has limited geo-zone and not a part of Internet is the only limitation but that also helped in 'How to increase geozone?' in communication classes. 5. Proof of Success: The students have actively participated and used cloud facility. Faculties enjoyed support of data sheets, animation and 3D graphics of communication concepts, installations of free simulation software on phone laptops were done. EDA tools have been well circulated among students. They initiated discussion on cloud usage among other subjects which created interest of peer departments. This was converted into one-day workshop as faculty development program aimed at LMS IT based of local cloud. The activity was initiated by Team IQAC and hosted by Electronics Department. Question papers of Tests were also distributed through cloud making it a paper- less test.

## 7. Problems Encountered and Resources Required:

- Security risks concerning the data stored in the cloud
- Unavailability of resources and expertise
- To managing multi-cloud environments
- Gathering instruments for making the cloud.



  
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