

The logo for NPCI (National Payments Corporation of India) features the letters 'NPCI' in a bold, blue, sans-serif font. To the right of the letters is a stylized Indian flag, with the saffron, white, and green horizontal stripes, and the Ashoka Chakra in the center.

भारतीय राष्ट्रीय भुगतान निगम
NATIONAL PAYMENTS CORPORATION OF INDIA

A photograph of a male teacher in a light blue shirt leaning over a wooden table in a classroom. He is demonstrating a science experiment to a group of young children. On the table is a small apparatus with a glass tube and colored rings. The children are looking intently at the experiment. The background shows a classroom with posters on the wall, including one with the NPL logo.

**SOCIAL IMPACT
ASSESSMENT REPORT
MINI SCIENCE CENTER
PROJECT**

The logo for SoulAce consists of a square divided into four smaller squares, with the top-left and bottom-right squares in white and the top-right and bottom-left squares in orange.

SoulAce
Path to Sustainability

SOULACE CONSULTING PVT. LTD.

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01. ABBREVIATIONS

CSR	Corporate Social Responsibility
DIY	Do It Yourself
FY	Financial Year
MSC	Mini Science Centre
NPCI	National Payments Corporation of India
SDG	Sustainable Development Goals
STEM	Science, Technology, Engineering and Mathematics

02. EXECUTIVE SUMMARY

Project Background

In response to stagnant learning paths in conventional school systems, exacerbated by diminishing foundational literacy and numeracy skills, India faces a critical need for interventions in education.

Highlighted by the ASER Report of 2022, declining arithmetic proficiency underscores the urgency for innovative approaches to science and math education. Acknowledging this challenge, the 104th Indian Science Congress emphasized the government's commitment to scientific advancement, advocating for 'scientific social responsibility' to cultivate a culture of innovation.

In this context, STEM Learning introduced the Mini Science Centre (MSC), aligning with the Prime Minister's vision to enhance STEM education through practical, enjoyable learning experiences. The program aims to empower students, alleviate apprehensions towards science and mathematics, and introduce engaging learning methods. By fostering curiosity and exploration, it seeks to lay a robust foundation for future academic and career pursuits in STEM fields. Moreover, the initiative extends beyond students to involve teachers and parents, emphasizing collective engagement in the pedagogical process.

Through the MSC initiative, stakeholders are encouraged to embrace a proactive role in nurturing scientific curiosity and proficiency among the youth, thereby contributing to India's broader goals of scientific and technological advancement.

Project Activities



Installation of a Mini Science centre at the premises of fifty government Schools with 80 plug-and-play models for concepts of science and mathematics.



Conduction of Teachers Training Program twice a year.



Provided materials and support for repairing and maintenance of the MSC equipment.



Conduction of Do It Yourself (DIY) Activities.



Regular Feedback through monitoring and evaluation.

Project Details



Implementation Year

FY 2022-2023



Assessment Year

FY 2023-2024



Beneficiaries

1,548



Location(s)

Singrauli district of Madhya Pradesh.



Budget

₹ 59,94,050 /-



Implementing Partner

STEM Learning Pvt. Ltd



SDG Goals



- SDG 4- Quality education
- SDG 10- : Reduced Inequalities

Design Snapshot



Project Name

Mini Science Center Project



Research Design

Mixed-Method



Sampling Methodology

Simple Random Sampling



Sample Size

260

Key Findings



73.8%

of beneficiaries, were attending the classes twice a week.



98.8%

of beneficiaries agreed on the availability of teachers in the MSC.



99.0%

of beneficiaries agreed to receive individual-level exposure for using the equipment provided in MSC.



82.1%

of beneficiaries did some group projects, while 17.9% did some experiments by themselves.



81.2%

of beneficiaries did not struggle to understand the concepts of any subject, whereas 18% still struggled in mathematics, and the same subject gives the most fear and anxiety.



42.7%

of beneficiaries responded that their understanding of the subjects improved to a great extent; meanwhile, for 50%, it improved moderately.



100.0%

of the respondents (teachers) mentioned that MSC helped to a very great extent in the teaching process as well as strengthening their own knowledge system.



100.0%

of the respondents (parents) noticed some improvement in their children after the MSC program

Key Impact



Comprehensive Impact. Beyond academic performance, the student's interest has increased immensely in science and mathematics. They used their own creativity and made newer models of science.



The MSC program made the classes of Science and Mathematics much more interesting. For instance, 62% of the beneficiaries responded that classes became very interesting.



The concept of 'learning by doing' has instilled confidence among students and expanded their imagination by allowing them to visually engage with models representing scientific concepts.



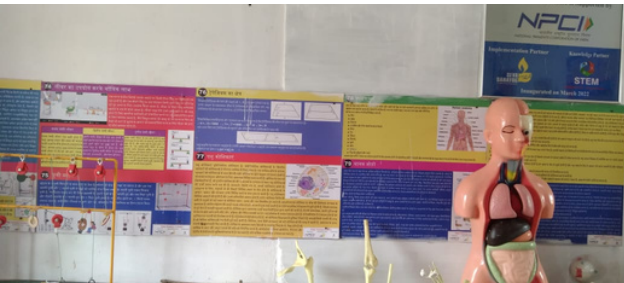
It also gave confidence among the community that their children are getting quality education in government schools.



School teachers got motivated and curious about teaching science and mathematics after engaging in MSC-related training.

CHAPTER 3

INTRODUCTION



Mini Science Lab

The Mini Science Centre (MSC) is an educative, innovative, and systematic tool aimed at transforming the education of science and mathematics, making learning simpler and more practical for everyone. It serves as an interactive and engaging platform, fostering awareness, facilitating comprehension, and enhancing the skills of students. It facilitates the study of science and mathematics in a fun way. Furthermore, MSC assists teachers in delivering lessons, particularly focusing on the concepts of science and mathematics. Mini Science Centre has a range of 80 tabletop working models with 33 back-drops and manuals in regional languages to provide hands-on experience for learning/teaching Science and Mathematics for Class 5th to 10th standard students. After installation, MSC became a permanent and integral component of the school curriculum, providing a foundation for effective education and promoting a deeper understanding of academic concepts and their practical applications.

BACKGROUND & NEED OF THE PROGRAM

Over the past decade, significant shifts have occurred globally, driven by technological advancements, emerging fields of knowledge, and evolving operational methods. However, despite these changes, the learning paths of successive student cohorts within our conventional school systems have largely remained unchanged in many states. The majority of students reach Grade VIII without acquiring adequate foundational literacy and numeracy skills, let alone developing higher-order abilities.

According to the ASER Report of 2022, it was noted that in India, the basic arithmetic proficiency of children has decreased compared to the levels observed in 2018 across most grades. In addition to that, science education in India encounters several practical hurdles. Mainly among these challenges, which have persisted from early education, is the difficulty in alleviating apprehensions surrounding subjects like science and mathematics and transforming them into enjoyable and practical learning experiences. This difficulty inhibits the retention of knowledge and the establishment of a strong foundation for children's future academic pursuits.

During the 104th Indian Science Congress, the Prime Minister affirmed the government's dedication to fostering scientific advancement across all fields, stressing innovation from fundamental to applied sciences. He introduced the notion of 'scientific social responsibility' (SSR) akin to corporate social responsibility, urging corporations to contribute to the establishment of science and technology centres nationwide. In alignment with that suggestion, STEM Learning provided the Mini Science Centre - (MSC) that supports and encourages the students to learn science and mathematics in a more fun and practical way.

OBJECTIVES OF THE PROGRAM WERE TO



Empower and enhance the aptitude of students.



Reduce the fear of Science and Mathematics among students.



Introduce easy and fun ways of learning Science and Mathematics.



Explore possible stepping stones for a career in Sciences and Mathematics.



Empower students and teachers with Mini Science Centre exhibits.



Engage Parents in the pedagogical process of education.

ABOUT THE CSR FIRM: NATIONAL PAYMENTS CORPORATION OF INDIA NPCI

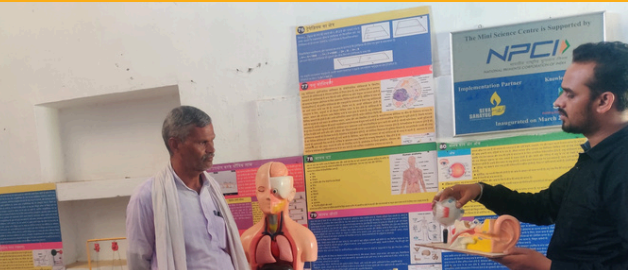
National Payments Corporation of India (NPCI), an umbrella organization for operating retail payments and settlement systems in India, is an initiative of the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India. Operating as a non-profit entity under the provisions of Section 25 of the Companies Act 1956 (now Section 8 of the Companies Act 2013), NPCI aims to develop a robust infrastructure for both physical and electronic payment and settlement systems, benefiting the entire banking sector in India. In alignment with its corporate social responsibility (CSR) initiatives, NPCI collaborated with various organizations in the social development sector, focusing on areas such as health, livelihood, education, environmental sustainability, and humanitarian aid to create sustainable, scalable, and replicable solutions addressing India's most pressing challenges.

ABOUT THE IMPLEMENTING PARTNER: STEM LEARNING PVT. LTD.

STEM is a socially responsible enterprise that collaborates with various stakeholders (public sector, government bodies, private sector, non-profit sector, etc.) working in the education sector. STEM refers to Science, Technology, Engineering, and Mathematics, these are the subjects which are crucial for addressing the ongoing technological shifts in our lives. STEM advocates for the integration of STEM education in schools, contending that it fosters curiosity, critical thinking, problem-solving skills, imagination, and exploration among students. Additionally, corporate social responsibility (CSR) initiatives contribute to fostering innovation and facilitating the design, testing, and modification of solutions for complex problems. Therefore, STEM's aim is to narrow the disparity between context-driven and memorization-focused learning methods, replacing them with a practical approach. This approach aims to empower children with the skills and knowledge essential for pursuing lucrative opportunities in the field of their interest.

CHAPTER 4

RESEARCH METHODOLOGY



Demo of science lab to the SMC member

National Payments Corporation of India (NPCI) commissioned SoulAce to conduct an impact assessment study to evaluate the immediate and enduring impacts of the program implemented under the CSR Theme: Education and Livelihood. The impact assessment study was conducted in the fiscal year 2023-2024.

OBJECTIVES OF THE STUDY WERE TO



Assess the overall impact of the Mini Science Centre program sponsored by NPCI.



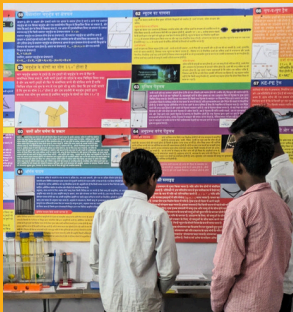
Understand the experiences of the beneficiaries of this project.



Explore the challenges faced by the stakeholders.



Make recommendations for enhancing the impact and sustainability of the program.



STUDENTS AT MINI SCIENCE LAB

MIXED METHODS APPROACH

By employing a mixed methodology, this impact assessment study ensures a comprehensive and nuanced evaluation of the Mini Science Centre program sponsored by NPCI.

QUANTITATIVE APPROACH

The quantitative component is used to get objective data and information, which includes the number of respondents and their sociodemographic details, knowledge, and information about the Mini Science Centre Program.

QUALITATIVE APPROACH

This evaluation also utilized the qualitative research method. The qualitative component delved into subjective experiences and perspectives, providing a nuanced understanding of participant views. Through open-ended questions, participants shared their experiences from program interventions.

TRIANGULATION

To enhance the reliability and validity of its findings, the study implemented triangulation techniques. Data triangulation was achieved through gathering information from diverse sources, including field notes and interviews with beneficiaries. This extensive data collection facilitated a comprehensive evaluation of the program's impact

SAMPLING FRAMEWORK

SAMPLING TECHNIQUE

Simple Random Sampling

QUANTITATIVE SAMPLE SIZE

260

QUALITATIVE OUTREACH

25

RESEARCH DESIGN



Project Name

Mini Science Centre



Implementing Partner

STEM Learning Pvt. Ltd.



Research Design Used

Mixed Method



Sampling Technique

Random Sampling



Sample Size

260



Qualitative Methods Used

In-depth Interview

KEY STAKEHOLDERS



STUDY TOOLS



Questionnaire

A structured questionnaire was developed for assessing the NPCI-sponsored CSR program details for each of the focus areas, and indicators were predefined before conducting the surveys.



Interview guides for Teachers and Parents

Two separate Interview Guides were developed for interviewing the teachers and parents of the primary stakeholders.

COMMITMENT TO RESEARCH ETHICS

This study demonstrated a sheer commitment to treating all the participants with fairness and respect, valuing their experiences, and ensuring their opinions were recognized. Emphasis was placed on obtaining informed consent and voluntary participation, with participants receiving comprehensive information about the study's purpose and their involvement and the freedom to consent or withdraw without repercussions. Necessary measures were taken to maintain confidentiality and privacy, safeguarding the identities and personal information of the participants.



TEACHER USING EQUIPMENT TO DEMONSTRATE A SCIENCE CONCEPT

CHAPTER 5

KEY FINDINGS AND IMPACTS



Students using lab equipment during science classes

INTRODUCTION

This chapter encapsulates the key findings of the study and analysis of the MSC Program. The chapters start from the providing some essential details about the program like geographical location and coverage of the program. Following that it provides the sociodemographic profile of the beneficiaries. For demonstrating the impact of the program, the chapter also covers the pre and post intervention scenario which includes the key program inputs and activities conducted during the intervention. Furthermore, the chapter showcases the key findings and impact with overall impact at individual and multiple levels. For explicit demonstration various tables and bar diagrams had been provided to compliment the evidences. Various testimonials had been also added for a detailed understanding of the impacts of the MSC program.



Geographical Coverage

Singrauli District, Madhya Pradesh

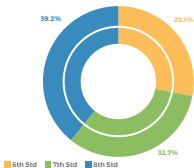


Inclusivity

Government Schools
(Underprivileged students from poor socioeconomic strata which includes SCs, STs, OBCs and students from EWS categories).

DEMOGRAPHY OF THE BENEFICIARY POPULATION

CHART 1: CLASS WISE DISTRIBUTION OF THE PARTICIPANTS



All the participants (teachers) were teaching science and mathematics in the schools. 66% of the participants had Master's degree whereas 34% possessed Bachelor's degree.

PRE-INTERVENTION SCENARIO

Before intervention students were taught science and mathematics theoretically only. The teachers were using conventional pedagogy.



All the participants (students) were from the ten schools of Singrauli district in which around 40% of the participants were from class 8th, followed by 33% of class 7th and 28% of class 6th.



Parents of these students were mostly engaged in private jobs and some of them were working as daily wage laborer. Average family income of the participants was 7000 INR per month.



"Before this intervention and training knowledge and understanding of both teachers and students were limited to the books only. Teachers were conducting only those activities which were given in the textbooks but that was not helping much in broadening the perspective of students."

Ranjana Namdev, Teacher, Harrei Paschim School.



STUDENTS USING LAB EQUIPMENTS DURING SCIENCE CLASSES



Key Input Program and Activities

RESOURCES PROVIDED DURING INTERVENTION



Setting up Mini Science center at the premises of fifty government Schools



80 plug and play models for concepts of science and mathematics.



Provide materials for DIY activities



Provided materials and support for repairing and maintenance of the MSC equipment

ACTIVITIES



Conduction of Teachers Training Program twice a year



DIY Activities



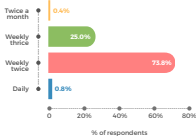
Regular Feedback through monitoring and evaluation.

TEACHER DEMONSTRATING A SCIENCE CONCEPT THROUGH MINI SCIENCE LAB



KEY FINDING: FREQUENCY OF ATTENDING THE MINI SCIENCE CENTRE

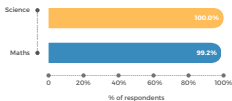
CHART 2: FREQUENCY OF ATTENDING THE MINI SCIENCE CENTRE



73.8%

of participants were attending twice a week followed by 25% of participants who were attending the MSC thrice a week.

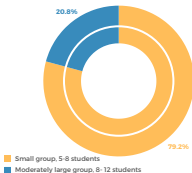
CHART 5: SUBJECTS LEARNT THROUGH THE MINI SCIENCE LAB PROGRAM



79.2%

of the respondents attended MSC in a group of 5-8 students while 20.8% of them attended MSC in the group of 8-12 students.

CHART 3: GROUP-SIZE FOR ATTENDING EACH MODULE



99.0%

participants agreed to receiving individual level exposure for using the equipment provided in MSC. Science and Mathematics were two subjects where 99% of participants learnt through MSC.

CHART 4: WHETHER GOT INDIVIDUAL EXPOSURE FOR USING THE SCIENCE INSTRUMENT AT THE LAB OR IN CLASSES?

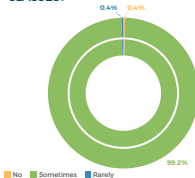
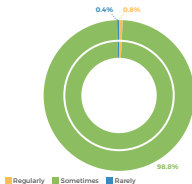


CHART 6: AVAILABILITY OF TEACHERS IN THE LAB



98.8%

participants agreed on the availability of teachers in the MSC.

COMPARISON BETWEEN PRE AND POST INTERVENTION

CHART 7: SUBJECTS FOR WHICH STUDENTS TO UNDERSTAND THE CONCEPT BEFORE THIS INTERVENTION

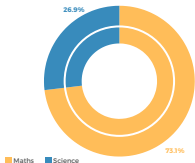
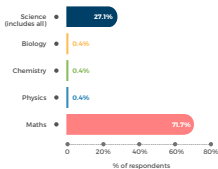


CHART 8: SUBJECTS THAT CAUSED MOST FEAR AND ANXIETY BEFORE INTERVENTION



73.1%

participants struggled in Mathematics and 26.9% struggled in science. For 71.7% participants Mathematics cause most fear and anxiety followed by science for 27.1%.



"Utilized mini science lab at least twice a week. I identify the models related to particular chapter and carry that model in the classroom for teaching. Sometime I invite students to come to Mini Science Centre also"

Ekta Dwivedi, Government Middle School, Etma.

CHART 9: AVERAGE SCORE RANGE IN MATHS BEFORE & AFTER THE PROGRAM

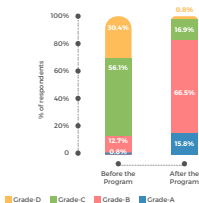
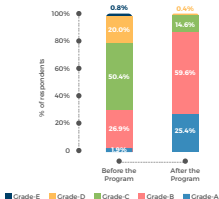


CHART 10: AVERAGE SCORE RANGE IN SCIENCE (INCLUDING ALL)



In Mathematics, 87% of the participants were scoring Grade C and Grade D. Only 0.8% were scoring Grade A, but after intervention only 17% were scoring Grade C and D. A significant majority 66.5% started scoring Grade B and 15.8% scored Grade A.



In Science, 70.4% of the participant were scoring Grade C and Grade D. Only 1.9% were scoring Grade A, but after intervention only 14% were scoring Grade C. A significant majority 59.6% started scoring Grade B and 25.4% scored Grade A.

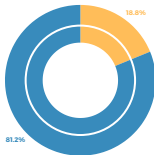


"The MSC program helped both students and teachers in the whole pedagogical process. Because the program provided us both training and additional resources. The result of which is reflected in the performance of the students. A lot of students had shown a significant improvement in their examinations"

Sharad Kumar Pandey, Teacher, Government Middle School, Shahpur.



CHART 11: WHETHER STILL STRUGGLE TO UNDERSTAND THE CONCEPT FOR ANY SUBJECT OR MULTIPLE SUBJECTS?



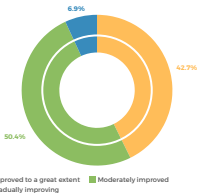
Maths Not Any More



81.2%

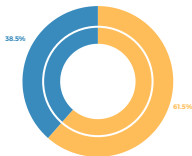
participants did not struggle to understand the concepts of any subject whereas 18% still struggle in mathematics and the same subject gives the most fear and anxiety.

CHART 12: EXTENT TO WHICH THE UNDERSTANDING OF THE SUBJECTS INCREASED THESE DAYS



Improved to a great extent Moderately improved Gradually improving

CHART 13: WHETHER THE RESPONDENTS CAN MANAGE TO DO THEIR HOMEWORK INDEPENDENTLY?



Yes To some extent



42.7%

responded that their understanding of the subjects improved to a great extent meanwhile for 50% it improved moderately. 61.5% responded that they can manage to do their homework independently and 38% responded that at some extent they can manage to do their homework independently.

“

"From last two months my children are doing their homework without private tuitions. It happened because of MSC program. This intervention helped them to understand the concepts of science and mathematics with clarity. I do not think they will need a private tutor in future"

Baliram Rajaq, Parent, Shahpur.

”

CHART 14: EXTENT TO WHICH THE CLASSES ARE INTERESTING

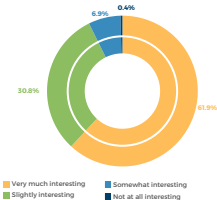
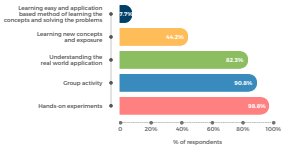


CHART 15: THINGS LIKE THE MOST ABOUT THIS MINI SCIENCE LAB PROGRAM



For majority 62% of the participants classes became very much interesting. For 30.8% classes were slightly interesting.



A significant majority 98.8% shared that hands on experiments was the reason behind liking MSC program followed by group activity 90.08%, for 82.3% understanding the real-world application was the reason. For 44.2% of the participants the main reason behind interest in MSC was learning new concepts and exposure.

“

"Enrolment rate had improved around ten percent. Students from private schools also moved into our school because they came to know about MSC in the government schools. Along with that the attendance went up to sixty percent which was lesser earlier"

Anita Singh, Teacher, Government Middle School, Jaitpur.

”

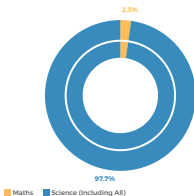
“

"My daughter wanted to pursue science and she wanted to become a doctor in future. She takes so much interest in studying science. She also participated in inter-school science fair competitions"

Saibbunisha Mansoori, Parent, Shahpur.

”

CHART 16: SUBJECTS WHOSE CLASS LIKE THE MOST IN ATTENDING THE MINI SCIENCE LAB CLASSES



97.7%

attended MSC mostly for science classes. Only 2.3% attended MSC for Mathematics classes. 13.1% were very much eager to take Science stream in future whilst 86.9% had not decided yet. 8.9% shown very much confidence in attempting new problems in Mathematics and Science whereas 71.9% shown this confidence at some extent.

CHART 17: WHETHER HAVE PLANS TO PURSUE SCIENCE SUBJECTS IN FUTURE STUDIES?

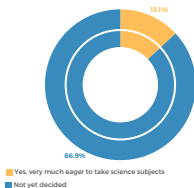


CHART 19: WHETHER DONE THE EXPERIMENT ALONE OR A GROUP PROJECT?

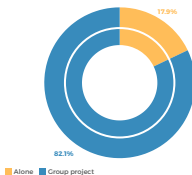


CHART 18: LEVEL OF CONFIDENCE ABOUT ATTEMPTING THE NEW PROBLEMS IN MATHS, SCIENCE SUBJECTS

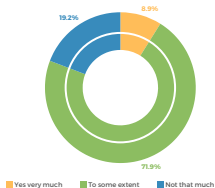


CHART 20: EXPERIMENTS DONE

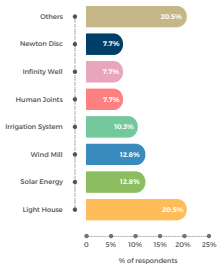


CHART 21: WHETHER RECEIVED THE FULL GUIDANCE AND MATERIAL SUPPORT?



- Yes, both guidance and materials
- Partial support, as we need to purchase a few items



82.1%

did group project in which 17.9% did some experiment by themselves only, 20.5% did the experiment of light house followed by 12.8% of solar energy and wind mill. Newton Disc, Infinity wall and Human Joints experiment was done by 7.7%. For conducting the experiment 64.1% received both guidance and materials whilst 35.9% received partial support.



“Students have shown interest in creating new models. They had participated in various block level and cluster level inter-school competitions. A few of them got selected. Such competitions motivated the students to think creatively. A student of mine had made a smart dustbin too”.

Vivek Singh, Teacher, Government Middle School, Parsauna.



STUDENTS AT MINI SCIENCE LAB DEVRA SCHOOL

KEY IMPACTS

OVERALL IMPACT CREATED



100% of the participants were satisfied with the MSC project. For students, it helped them to study mathematics and science in much more interesting and familiar way.



All the teachers were satisfied with the training and material provided via MSC program. The training inculcated some newer and creative methods of teaching mathematics and science into them. It also expanded their scope of teaching by showing their students' various models of MSC program



STUDENTS LEARNING CONCEPTS THROUGH MINI SCIENCE LAB

Key Stakeholder Satisfaction



100.0%

of beneficiaries responded that they are very much satisfied and grateful for the MSC Program in the schools.

KEY CHALLENGES AND BARRIERS



Lack of availability of proper infrastructure for installing and running the MSCs.



Teachers shared that their engagements in non-academic activities breaks the consistency in the process of teaching.



SHAHPUR SCHOOL TEACHER GIVING DEMO TO THE STUDENTS

Impact Created Across Multiple Levels



On community level the students from marginalized sections were accessing quality education which will be fruitful for their future.



This kind of education will develop rationality and scientific temperament among the younger generation.



MSC program will also help in attaining the nation's goal of literacy and quality education.

06. OECD FRAMEWORK



Relevance

The NPCI sponsored MSC project holds relevance as it addressed the need of providing education of science and Mathematics in an innovative and practical way. For both teachers and students, the process of teaching and learning got easier



Coherence

Alignment with the National Program

Rashtriya Madhyamik Shiksha Abhiyan (RMSA): The MSC program sponsored by NPCI contributes to achieving the objectives of RMSA.

Alignment with SDG Goals.

Quality Education (SDG 4): The MSC program implemented by STEM Learning Pvt. Ltd. had a promising educational framework for sustainable development that improves education quality. MSC intervention contributes to this goal by providing students with critical thinking and problem-solving skills. Additionally, this intervention also helps in providing education by following the pathway of 'Learning by Doing.'

Reduce Inequality within and among Countries (SDG 10): By providing equal access to quality education and opportunities for underrepresented groups, this intervention would help reduce inequality and ensure that everyone benefits from technological advancements.



Effectiveness

As per the results, this intervention had shown effectiveness because it addressed the objectives of providing quality education to the students by reducing their fear with Science and Mathematics. MSC establishments and training provided to the teachers shown its impression in the performance of the students.





Efficiency

The MSC project had shown good efficiency, the schools are utilizing the MSCs on a regular basis. Almost all the 80 models provided in the MSCs had been used to teach science and DIY materials were also used by students in classroom activities.



Impact

The impact of the project is evident from its coverage of 1548 people in a year. Also, students understanding about science and mathematics had been increased which is also reflected in their academic performance.



Sustainability

This intervention had shown high sustainability because the MSCs were handed over to the government schools wherever it was installed. Teachers and student were taking care of the models. In addition to that, implementing origination provide regular maintenance and repairing of the equipment. In conclusion, Mini Science Centre model is replicable and scalable program with zero operation cost.



Relevance



Coherence



Effectiveness



Efficiency



Impact



Sustainability

The Way Forward



INTRODUCING NEW MODELS

Until now, there are eighty models in the MSC. teachers have suggested introducing new models, with particular emphasis in chemistry and mathematics. Therefore, in the preparation of the new models, valuable input could be gathered from the teachers as well.



REVAMP THE INFRASTRUCTURE

In most schools, the MSC lab building/room has shown signs of wear and tear. Therefore, there is an opportunity to revitalize the physical infrastructure of the MSC lab .



INSTALLATION OF SMART BOARDS

Teachers have also suggested the installation of SMART boards as it would make their work more efficient.



POWER BACKUP IN THE ABSENCE OF ELECTRICITY

In all schools, power backup in all schools would be beneficial to ensure the functioning of the digital devices of the MSC in the absence of electricity.



TRAINING OF NEWLY RECRUITED TEACHERS

Give the recent recruitment of the teachers, it is suggested that timely training be provided to them.



REGULAR MEETINGS WITH TEACHERS

To address various challenges like pedagogy, focusing on innovative assignment methods, efficient functioning of the MSC, and other challenges, regular meetings can be conducted with the teachers for constructive discussions.



CONDUCTION OF SCIENCE FAIRS AT INTRA-SCHOOL AND INTERSCHOOL LEVELS

Science fairs can be organised at periodically in every school, and with a focus on encouraging students to participate in range of competitions like quizzes, model making, and essay writing.



TRAINING FOR PARENTS

Students and their parents can be trained in the efficient use of computers and smartphones. For that, sessions could be conducted at school level in which parents could be trained in the use of various mobile applications and techniques for utilizing smartphones to help their kids. This will help them in utilizing their time to access valuable information and knowledge and prevent their kids from unnecessary scrolling. Also, information related to some useful YouTube channels could be provided which could facilitate them at home.

CHAPTER 8

CONCLUSION

The NPCI-sponsored Mini Science Centre (MSC) project has effectively shone the spotlight on science education, making it more accessible and engaging for children in government schools, primarily from marginalized communities. By installing MSCs and providing extensive training for teachers, the initiative has significantly enhanced the educational resources and capabilities within these schools.

This intervention has not only imbued students with a scientific curiosity but also fostered a culture of lifelong learning. The active participation of students in creating models for homework and their involvement in various science fairs demonstrate a heightened engagement and interest in Mathematics and Science. Such activities are indicative of their deeper cognitive involvement and a growing understanding of the subjects, enriching their educational experience and broadening their academic horizons.

Furthermore, the community's increased confidence in the quality of education provided at government schools, as well as the enthusiastic response to the MSC program, underscores its success in meeting CSR objectives. This initiative has not only highlighted the importance of accessible science education but has also empowered students by igniting a curiosity that extends beyond the classroom, laying the foundation for continuous learning and exploration in science and technology.