

CASE STUDY REPORT

Main Theme

**Academic Leadership / Pedagogical Leadership for Enhancing
Student Learning Competencies**

Title

**"Addressing IT backwardness in the students of
Koombara Village: A Case Study of Educational
Challenges and Solutions"**

Submitted by :

- | | | |
|----------------------|-----------------------------|-------------------|
| 1. Shakira Pk | HST English | 9846723152 |
| 2. Niyas UA | UPST | 9645208850 |
| 3. Navas U | HST Physical science | 9048673030 |

**FATHIMABI MEMORIAL HSS KOOMBARA
KOOMBARA BAZAR (PO) , KODARANJI , KOZHIKODE ,
KERALA -673604**

Email : fmhskoombaras@gmail.com Mob: 08547970936

INDEX

1	Executive Summary	1
2	School Profile	
3	Executive Summary	
4	Introduction	1
4.1	Background of Koombara Village	
4.2	Problem of IT Backwardness	
4.3	Objective of the report	
5	Village Profile	
5.1	Location	
5.2	Demographics	
5.3	Current IT Access	
6	Problem Statement	
7	Strategies implemented by the school	7
7.1	Academic programs for enhancing students learning competencies	7
7.1.1	IT Club	7
7.1.2	Little Kites Corner	7
7.1.3	Meet the Professional	8
7.1.4	Kaithangu	8
7.1.5	Installation	8
7.1.6	Robusta	9
7.2.	Programs for enhancing skill based and vocational education	9
7.2.1	Lens - Camera training	9
7.2.2	Mobile journalism	9
7.2.3	Hardware training	10
7.2.4	Uses of android mobile phone	10
7.2.5	LED bulb making	10
7.3	Socially Responsible Activities	11
7.3.1	LK - sevana	11
7.3.2	Cyber safety classes	11
7.3.3	E - Waste Scrap challenge	11
7.3.4	My village - My pride - wiki village campaign	12
7.3.5	LPG Gas mustering	12
7.4	Programs for equity , diversity and inclusion	12
7.4.1	It @ Gothragraha	12
7.4.2	Smart amma	12
7.4.3	E - Muttam	13
7.5	Programs for mental well being	14
7.5.1	FM Radio	14
7.5.2	Audacity lab	14

7.5.3	Industrial visit	14
7.6	Leading Community partnership for School Transformation	14
7.6.1	Hi Tech school project	14
7.6.2	Computer Lab Rebovation	14
8	Achievements	15
9	Results and Outcomes	15
10	Conclusion	16

School Profile

Fathimabi Memorial Higher Secondary School

Fathimabi Memorial Higher Secondary School is located in the beautiful hilly area of Koombara in Mukkam sub-district of Kozhikode district in Kerala. Since the school is surrounded by mountains on all four sides, nature itself has given its beauty to this area. Although the school started in 1976, the building and the surroundings have undergone many changes, the surrounding areas have continued to maintain that ancient nature. The large rock located on the right side of the school ground, the raindrops that fall on the rock and scatter like dewdrops during heavy rains, and the trees standing tall behind it are all the main attractions of the school. The school premises are a valley of wonders that cannot be counted.

School Name	:	Fathimabi Memorial HSS Koombara
School Code	:	47045
Sub District	:	Mukkom
Educational District	:	Thamarassery
Revenue District	:	Kozhikode
Established on	:	01-06-1976
Administration	:	AIDED
School Type	:	Mixed
School Habitation	:	Rural
UDISE Code	:	32040601106
Sections	:	Upper Primary High School Higher Secondary
Medium	:	Malayalam,English
No: of Students	:	Boys – 210 Girls – 529 Total – 739
Principal	:	Abdul Nasir K
Headmaster	:	Mohammed Basheer P
Address	:	Koombara Bazar(po) Koombara , Koodaranhi 673604(pin)
Phone:	:	0495-2277150
Email	:	fmhskoombaras@gmail.com
Website	:	https://schoolwiki.in/fmhsskoombara

Executive Summary

This case study addresses the issue of IT backwardness in Koombara, a remote village in Kozhikode District, Kerala. The village has faced significant challenges in adopting and using technology due to limited access to resources, lack of awareness, and the absence of proper training programs. In response, FMHSS Koombara has implemented a series of strategies aimed at improving IT literacy among the villagers. These strategies include awareness programs, computer training workshops, infrastructure development, and mobile-based learning initiatives. This report outlines the various efforts made by the school, the challenges faced, and the positive outcomes achieved so far.

Introduction

Background of Koombara Village

Koombara is a rural village located in the Kozhikode district of Kerala, characterized by a predominantly agrarian economy. The population is largely dependent on farming and manual labour, and most residents have limited exposure to modern technology. According to recent surveys, the village has minimal access to digital devices, with less than 15% of households owning a computer, and internet access is limited to a few mobile connections.

Problem of IT Backwardness

Despite the growing importance of digital skills in modern society, many residents of Koombara lack basic IT literacy. The inability to use computers, browse the internet, or access online government services has created a digital divide between urban and rural populations. Additionally, the lack of knowledge about digital platforms has hindered the village's educational and economic development.

Objective of the Report

This report aims to document the efforts made by FMHSS Koombara to address the issue of IT backwardness in Koombara, assess the impact of these interventions, and suggest recommendations for further improvement.

Village Profile

Location

Koombara is located in the rural part of Kozhikode district, Kerala. The village is situated about 45 kilometers from the district headquarters and is primarily dependent on agriculture.

Demographics

- **Population:** Approximately 3,500 people.
- **Age Distribution:** 35% children (age 0-14), 50% working-age adults (age 15-59), 15% elderly (age 60+).
- **Primary Occupations:** Farming, daily wage labor, and small-scale handicrafts.

Current IT Access

- **Household Ownership:** Less than 15% of households own a computer or laptop.
- **Internet Usage:** Approximately 45% of the population has access to mobile internet, but data speeds and connectivity remain issues.
- **Education and Digital Literacy:** Only 40% of students in the village have basic knowledge of computers, with limited exposure to online learning tools.

Problem Statement

Koombara's rural community faces severe challenges in adopting Information Technology (IT) due to a combination of factors:

1. **Lack of Access to Technology:** Many families cannot afford computers or reliable internet connections.
2. **Lack of Awareness:** There is minimal awareness about the importance of digital literacy for education, work, and government services.
3. **Educational Gaps:** Although the village has a primary school, High school and higher secondary school there is limited IT infrastructure, and the curriculum does not emphasize digital skills.
4. **Resistance to Change:** Older generations are often skeptical about technology, making it difficult to introduce digital tools for learning and communication.

Strategies Implemented by the School

In response to the IT backwardness issue, Fmhss Koombara has implemented several strategies aimed at improving IT literacy in Koombara. These strategies are designed to create awareness, provide access to technology, and teach essential digital skills. A ten-year project was implemented in the academic master plan to address the IT backwardness of students and parents in the Koombara region and improve the excellence of the children. Projects were implemented mainly in 6 areas.

1. Academic programs for enhancing students learning competencies
2. Programs for enhancing skill based and vocational education
3. Programs for equity diversity and inclusion
4. Socially Responsible Activities
5. Programs for mental well-being
6. Leading community partnership for school transformation
7. leading technology integrated school process

Academic programs for enhancing students learning competencies

IT club

The IT Club in the school is progressing very well with the aim of developing interest in Information Technology among the students. The Little Kite Unit under the IT Club won the award for the best unit in Kerala and a cash prize in 2019. This year, winning the award for the best IT club in the district was a recognition of the excellence of the school IT Club. Similarly, winning the School Wiki Award for two consecutive years under the IT Club is a great achievement of the IT Club. Various socially responsible activities have been carried out under the club in the past years. Our school has also been selected as a model school for IT clubs in Kerala.

Little Kites Corner

Little Kites Corner is a project started with the aim of providing a training facility for other students of the school who are interested in IT to learn about the special training received by Little Kites children. This service is available every Friday from 12:30 pm to 2 pm. Along with this, training in various fields such as animation, scratch programming, open shot video editor, graphics, robotics is also being conducted



through this. This highly effective activity has been praised by teachers and parents.

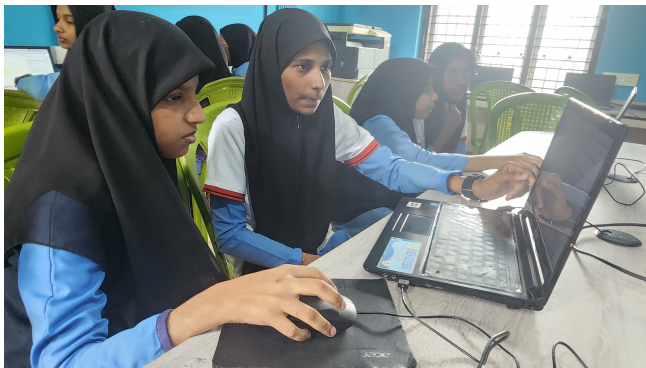
Meet the Professional

With the aim of introducing innovative ideas of IT to the students, an opportunity was arranged for a discussion with prominent figures in the IT field. Zaheer Cheemadan, who obtained his doctorate from NIT Trichy, interacted with the students on the topic of importance of IT research and growth of technology. Similarly, Nisar Ilthumish, a prominent activist and IT expert, conducted a class for the students on the topic of mobile journalism and discussed the possibilities of mobile journalism in detail with the students .



[VIDEO LINK](#)

Kaithangu



Kaithangu is a project that provides special IT training to students of classes 9 and 10 who are lagging behind in their studies due to various reasons. The Kaithangu project is led by students of 22-25 Little Kites batches. Various activities in the textbook are introduced in the simplest way. For this, a special module is prepared and printed by Little Kite students and given to the selected children and training is provided on the basis of that. IT training is

held every day from 1:20 PM to 2:00 PM. 14 students selected from classes 9 and 10 are involved in the Kaithangu project. The IT training provided by student trainers is very useful for the students.

[VIDEO LINK](#)

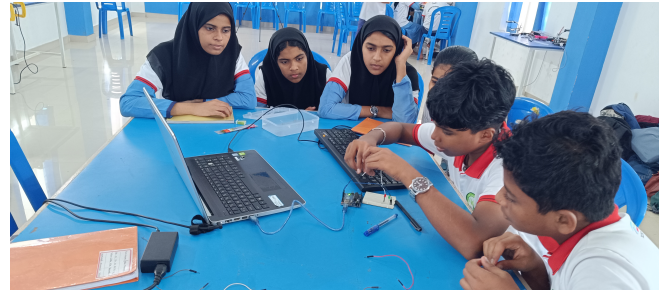
Installation

As part of the village project, an Ubuntu installation program was organized on laptops and computers of school students and people with computers in Koombara areas to promote Ubuntu, and in connection with this, the students themselves organized classes for parents and students about the benefits and convenience of using Ubuntu. Ubuntu was

installed on 73 systems through special counters. These posts and others were sent to all the Kassarups and local groups in the country to promote the installation counter. Its publicity was provided by sending these posts to all the class groups and local groups in the country.

Robusta

Little Kites students organize camps in schools to learn more about the subject of Electronics and Robotics that they have studied as part of their training. Mini-project preparation using various sensors and their uses were also conducted in these camps. The children also learned to prepare robotic projects using sensors within an hour. The students who participated in these camps provided training to other students of the same club in their free time. Through such activities, the Little Kites students of the school are able to show excellent performances in the field of IT.



Programs for enhancing skill based and vocational education

Lens-Camera Training

A one-day camera training was organized for Little Kites students at the school. In this training, the children were given clear training on how to take still photos and videos using a DSLR camera and the things to pay attention to while using the camera. The class was led by Muhammad Abubakar Sir, a PRO member of the school. Sir explained the various parts of the DSLR camera and how to use them. This training also included how to prepare documentation of the photos and videos taken using various editing software such as Audacity and Open Shoot Video Editor. After that, the documentation of all the activities taking place in the school is being done under the leadership of Little Kites students.



Mobile Journalism [Mojo]



Mobile journalism is a multimedia form of journalism that uses small network-connected devices such as mobile phones to record, edit, share, and produce videos. In school, Little Kite students routinely use DSLR cameras to

document all activities. In contrast, Little Kite students use smartphones to do all the documentation. They use mobile phones to capture still photos, videos, and video editing, and all of the activities were done using smartphones.

Hardware Training..

A hardware lab has been set up in the school under the leadership of the IT club. In this, a one-day hardware training was organized for the Little Kites students. The class was led by Shiju Edakodan, an expert trainer in the field of computers. The various parts of the computer were shown to the children separately and each part was taught in a very detailed manner. From this, the children got a clear understanding of all the working parts of the computer such as CPU, UPS, motherboard, RAM, ROM.



[VIDEO LINK](#)

Uses of Android Mobile Phone

This class, which introduces online services that can be done through Android phones, was very useful for parents. The class was given in detail about paying land tax using mobile, electricity bill, railway ticket, bus ticket, etc., and doing online services using mobile. The class was led by School IT Coordinator Shakira P.K.

LED Bulb Making

As part of the vocational education, LED bulb making training was conducted for Little Kite students. This was led by Kitemaster Navas. For this, about thirty Little Kite students, divided into three groups, made about 100 LED bulbs. As a follow-up to this, every Friday from 1.15pm to 2.00pm, Little Kite students and others are providing LED bulb making training to students. This activity has become a very interesting activity for the children. The LEDs made by the children are sold in the nearby areas at a price of Rs. 45 with a one-year warranty. The money received from this is used for further vocational training activities and for Little Kite's daily activities. Along with this, LED bulbs are provided free of cost to economically backward students.



Socially Responsible Activities

LK- Sevana



Little Kites-Seva is a scheme designed to instill values such as social commitment, service interest, cooperative spirit among Little Kites members and to make the benefits of high-tech systems available to the general public. The aim of Sevana is to provide online services free of cost. Online applications for various scholarships such as NMMS, NTSE Pre-matric Scholarship, Post-matric Scholarship, Snehapurvam Scholarship, etc., birth and death certificates, Aadhaar

update and online payments are also being done under the supervision of Little Kites members.

[VIDEO LINK](#)

Cyber Safety Classes

Under the leadership of the School Little Kites Unit, a study class was conducted for students and parents on the topic of Social Media Opportunities and Pitfalls. Thiruvambadi SI Ramya moderated the class. Many topics of general relevance such as cyber laws, cyber security, various ways to prevent cyber crimes, opportunities and pitfalls of social media were discussed in the class. This class became an inspiration for many who are not aware of the changes in the modern era.

[Video Link](#)

e-Waste scrap Challenge



Waste is the biggest environmental and social problem facing the modern world, but in our country, the common people are still not aware of the importance of this issue. The Akri Challenge is a programme organized by the LK Unit to make the common people aware of the impact of this waste. 500 notices were prepared under the title "560 crore phones thrown away" and brought to the schools and all the children coming from the country. In addition,

they went to all the houses in the area to create awareness about this waste and at the same time asked the students to deposit this waste in the waste collection box installed in their houses. As part of the campaign, during the house-to-house visit, this waste collected from the houses and others was sorted and sold in collaboration with the shops and the money was collected through this and the

money was allocated for the daily activities of the Little Club. This became a way to convince the locals about the need to sort electronic waste and also to raise funds.

[Video Link](#)

My Village My Pride - "Wiki Village" Campaign



Koombara Fathimabi Memorial Higher Secondary School started a unique activity in the field of general education. The "Wiki Village", initiated by the Little Kite students of the school, included the history of the settlement period of the hilly region of Mukkam, Koombara, and the lifestyle, customs, various tribal communities, prominent educational institutions, and famous personalities, became very noticeable. The school,

which won the Little Kites State Award, introduced the Wiki website to the local residents of Koombara. The people were very excited to be able to understand the ins and outs of their village by scanning the QR code of the Wiki Village page. Through such activities, the school was able to bring the hilly region to the state level and the school became a cultural center of the country.

[VIDEO LINK](#)

Programs for equity diversity and inclusion

IT@Gothragraha

The project was started with the aim of providing special free computer training to the tribal people in Mankunnu tribal Colony in Koombara. It was started by the students of the Little Kite Club in school. The students visited Mankunnu Colony who are not part of the community and invited them to the Anganwadi in Koombara to train them the basic skills of computers. These tribes who were not familiar with laptops or computer basics are introduced to laptops and small-scale training is conducted from time to time, starting with games and music.



[Video Link](#)

Images

Smart Amma

Little Kites students and teachers conducted computer training for mothers and taught parents basic computer skills such as Malayalam, English typing, office

packages, and the Internet. The classes for mothers are held in the evenings and on weekends. Further facilities were provided for parents who wish to continue their studies.

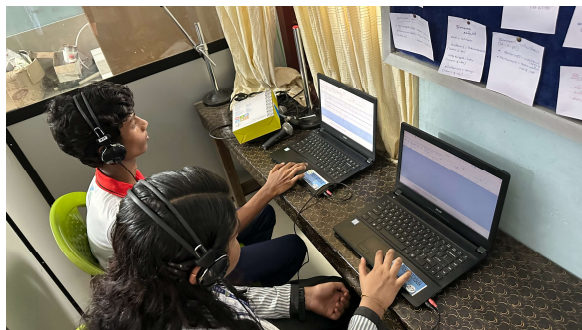
E-muttam

This project is led by school LK students with the aim of making the Koodaranji grama panchayat a fully literate panchayth. In this project, training was given on how to do many online services required in our daily lives with the help of mobile phones, and online help desks were organized at various places and birth certificate, death certificate, Aadhaar updation, voter ID, and payment of land tax were made available under the leadership of LK students. The biggest achievement of this program was that the women who participated in this approached the students requesting further training and later provided training for a day.



Programs for mental well-being

FM Radio



With the aim of making the school radio channel into reality, the FM radio is being run by the children. They are identified as artistically talented children at the class level, and various cultural programmes are being broadcasted through the radio station by involving interested children. Little Kites students record the children's programmes, keep them in folders, and broadcast them from 1:30 to 1:50 pm.

The programs recorded on the day are planned in such a way that they are broadcasted the next day. This helps to bring out the various artistic talents of the children and achieve great success in them.

[VIDEO LINK](#)

Audacity Lab

Audacity Lab is the sound recording studio, which was set up under the supervision of the Little Kite Club to practice sound recording and editing. It mainly records programmes required for

school radio broadcasts . Every year, Little Kites students take the charge of the lab. News readings, songs, storytelling, etc. are mainly recorded in the recording studio, edited and prepared for broadcasting.



Industrial visit

The IT Club visited various science and technology institutions with the aim of learning about job opportunities in the IT sector and getting to know new and innovative ideas more closely. As part of this, the anti-student sections provided for our students at the Indian Institute of Management, Kozhikode helped the students to delve further into the IT sector about the opportunities and various

courses in the institution. Then, at different times, students and teachers visited Uralungal Cyber Park, Koyilandy Keltron, Markus Waste Treatment Plant, Kozhikode Milma, and Farokh Tile Factory and were able to gain some new experiences.

[VIDEO LINK](#)

Leading community partnership for school transformation

Hi Tech School Project

The most important activity of converting the classroom into a high-tech one , to increase the IT skills of the students was implemented by the PTA and the management at a cost of Rs. 20 lakhs. As part of the beautification of the classrooms, tiling was done, painting was completed, and clean curtains were installed. This huge project was completed by ensuring that each class had high-tech boxes, laptops, projectors, internet facility and sound systems. Today, with all the classrooms being converted into high-tech, all the students have been provided with the opportunity to utilize the potential of IT more.

Computer Lab Renovation

Another program planned like the classroom was the Hi-Tech Computer lab Project. This massive program was implemented with the aim of upgrading the

computer lab in the school. In this program, which initially had only 12 computers, it was possible to convert it into a huge lab with modern facilities with 60 systems today. The computer lab has been renovated in a way that allows all the children in each class to do practical's using each system

[To glance @ the activities of the school](#)

Challenges Faced

Despite the positive strides made, several challenges remain:

1. **Limited Access to Resources:** The lack of consistent electricity and affordable internet plans hampers the effectiveness of digital learning initiatives.
2. **Technological Resistance:** Many older villagers remain skeptical about the utility of technology, which slows the adoption of digital literacy programs.
3. **Financial Constraints:** The school faces budget constraints in scaling up programs, purchasing more equipment, and maintaining the computer lab.

Results and Outcomes

Several positive outcomes have been observed:

- **Increased Digital Engagement:** Over 500 villagers have attended the IT literacy workshops, with a noticeable increase in smartphone usage and internet browsing among adults.
- **Improved Educational Access:** Students from the village now use the computer lab for online learning, homework, and research, improving their overall academic performance.
- **Enhanced Digital Skills:** 70% of participants in the IT training program reported feeling more confident in using a computer, sending emails, and browsing the internet.

ACHIEVEMENTS

The ten-year project, which aims to promote the IT sector, has been specially praised by the Education Department and the Kerala Government since its first year. The main achievements during this period is given below

1. School wiki award 2018 - First position in district level
2. **Little kites award 2019 -(State level first)** - the school received a cash prize of Rs. 5 lakh and a certificate of appreciation from the Chief Minister for this excellent work in the IT sector implemented by the school.
3. Best PTA Award 2020

4. State Haritha vidhyalaya puraskaram 2021
5. School Wiki Award 2022
6. Little kite award 2023 – District level first position

Conclusion

The efforts made by FMHSS Koombara to improve IT literacy in Koombara have had a significant positive impact. By providing training, building infrastructure, and fostering a sense of community ownership, the school has helped bridge the digital divide and empowered the villagers with essential digital skills. However, continued efforts are needed to address the challenges related to access, resistance to technology, and funding.