

## Theme: Leading Technology Integrated Schools Processes

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### Case Study- The School of Innovative Experimentation

#### School profile:

No. of Students	No. of Teachers	No. of classrooms	No. of Admin Staff	Infrastructure like Computer Lab, Laboratory, Library
232	8	11	1	Computer lab with 30 laptops, Library Science laboratory with 65 working Models

#### The present scenario; key strengths and weaknesses of the school (Strength Weakness Opportunity Threat Analysis)

I joined rangpur school on 27 august 2015. In 2015, 171 children were studying in the school. school students were so week in technology. They didn't know what is computer & google at list. So, I decided to do some in technology.

#### The description of community - cultural pressures; values, attitudes, needs and expectations; skills, chief occupation.

Rangpur is in Tribble area. All villagers are Adivasi people. Local business of village is farming and people are not well in economy & lived poor life style. So, I cannot get any financial help from students' parents.

#### The problem situation – what and why; the challenges and issues;

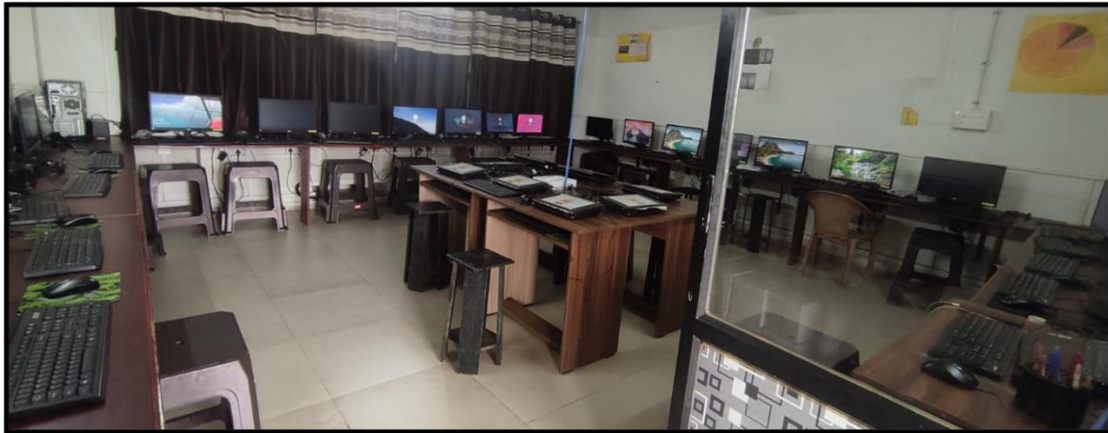
First, we decided to buy at least one computer but main problem was money. So, I buy a laptop and projector for myself started to teach with technology. Students were so excited and happy. They liked to learn with laptop. Students talked with their parents about the way of leaning. Before some days parents were come to school and take interest in school problems.

The responses to the children were very good and I was very encouraged by the members of the school management committee. Other school teachers also helped me in this work. We started to speak to the children in school 30 minutes early in the morning so that the children could be given more time and not even west the school curriculum. The members of the School Management Committee also started giving time to the school. To meet the needs of school money, we started to meet many donors of Navsari. Tiny smiling face group gives us a smart board and a computer. So that our work got momentum.

The basic challenge was money. Computers were needed to digitalize the school. The people of the village were not financially capable enough to support the school financially. There was no other donation for the school. Under such circumstances, it was very difficult to develop the school.

## SMC FUND

- Every kids give 10 rupees in month.
- Every teachers give 100 rupees.
- Every SMC Member gives 100 rupees per month. In this way an average of 4000 rupees is collected every month. I bought a computer every year from that money. Because it is difficult to teach ICT without computers.
- Currently we have 30 computers lab with 500mbps internet speed.



There was talk of keeping the guardian meeting in school at first. There was talk of helping the computer in the school. But no positive response was received by the parents so that I started giving technical knowledge to children through my laptop. Every Saturday, 11 to 2 Extra Period has been given to children by giving an insight to the children. On 4th Saturday only children email, google search, blog, etc. Learned about This skill of the children was presented to parents, which changed their attitude towards the school of the guardians.

I believe that my school children should not be left behind in technology. So that I started talking to just one laptop. It is also important to give children knowledge about technology. Children need to teach living with current trends. So that I decided that my kids would not be able to look back in technology. The inspiration of technology I found myself too soft. I used to have computers since the time I was in standard 4 so that the computer is in my power.

The children who were to be taught to me were equally enthusiastic, that was the strong link for me. I was well supported by the children and they were also learning very fast. Children also called their parents about this skill. That's why parents get intrest in school. I started to get a good support from the teachers of the school. The members of the School Management Committee also started cooperating with each other. We all decided that to do anything, to bring the school forward in the digital field.

## The change initiated, the Plan of Action, Strategy, Outcome

I spoke to the teachers for the need of the school computer and decided that every teacher should pay 100 rupees per month for his salary. As a prisappal I pay 500 rupees per month, and this money is opened in one school account and deposited in it. The members of the School Management Committee are ready to give 100 rupees per month. Knowing this fact, parents are ready to cooperate, so that they It was said that every child gets 10 rupees per month for school. This way we have planned to bring the computer in the school. And in just 1 year, 3 computers were installed. After taking the computer every Saturday, children start learning the computer after 11 to 2 extra school time. We gave the keys of a computer lab to the children so that children can learn computer even on a Sunday. Members of the School Management Committee come to school with children on Sunday and watch the children's computer work.

After receiving the support of the school for the needs of the school, the schools have tried

to move towards digital. The children taught by typing in Gujarati English and Hindi language through Extra Classes. They also taught Photoshop and DSLR camera operating. Learn more about filling in online form this is how children make their first digital. Children made their own email address manually. Some children also made their YouTube TV channel.

My kids are now hooked on computers and Google. So, with the help of kids, I tried to digitize the class 8 social science book through QR code. Every video of social science stream of class 8 was searched on YouTube and a QR code was automatically generated in the book. So that children can study this code by scanning this code at home also. This is given to parents to hold parents meeting so that parents give mobile to their children at home so that children can study this QR code by scanning. This is first. This we arranged at the beginning. We presented this QR coded book in the Innovation Fair organized by Gujarat Government. This QR coded book was very liked by Shri Vinod Rao Saheb, Education Secretary of Gujarat State. Today the initiative taken by us has been implemented across Gujarat. Every book is also a digital event. Children's tests were also digitized. Initially, every Saturday children bring their parents' mobiles to school and each parent has a mobile test application installed so that the children take the test in this application and end the test results, send the screenshots to the school laptop and thus the children have the screenshots of each test in the laptop. It is also fun to check. Seeing such a system of the school, Rotary Club Udhana has donated 65 tablets to us. Currently, school children do their studies and exams on tablets.



The second work was followed by 3D knowledge for which 30 3D glasses were buy in the school. Children have now started studying all the units of science biology with the 3d glasses. They are very happy and get interest in science.

Children were also introduced to VR Technology by providing 10 VR Boxes in my school. Now the kids are taking the mobile of teachers in the time of lunch and learning to play games and educational videos on the VR Box. VR box are very useful for virtual learning. It creates interest in education and make easy to learn the hard topics of social science and science.

AR technology is also used in my school. We have bought the science chart which are used in AR technology. just scan the chart by mobile and the thing of the chart is made alive. It's an Augmented Reality, helps students and teachers in learning. We have around 45 AR technology chart.

I have made 17 innovations in my school. Best one is RNEWS. we create a simple and small studio in my school. Every month the school 's news is made by the children. Then we shoot the news. Students are the host of the news, then we posted the on social media. We get good response by people who watch our RNEWS video. Due to our Rnews innovation, 14 news channels of Gujarat have presented our school on their news channel. 2 national news channels have also visited the school. At present our school is the only one in Gujarat which runs its own news channel and that too by girls.





Together with the kids, I have also created a school blog, android application, YouTube channel, Facebook page, Tweeter account etc. My school comes from 1st to Rangpur primary school type on Google. In addition, there are more than 450 projects of standard 6 to 8 social icons placed in this room, children are studying these projects in the time of lunch. For the weaker children in the study every child is given professional knowledge on

every Saturday, in which children are taught with digital camera photography and drone operating. For which I have BOUGHT a digital camera in my school and my friend's drone camera is also given to school one day in a month.

Some of my innovations continue to add some improvements to old mobiles like May school that kids can't bring mobiles on Saturdays, they give tests on these mobiles. QR, VR and AR technology updated every month. I got better results than I did, I started posting school activities on social media to start donating to the school as well. Small Smiling Facebook group donate us 1 smart board and computer. Gram panchayat provides 1 computer in my school. Mr. Harshadbhai Patel, a resident of America, impressed by the school's performance, has donated 20 laptops to the school. So, we started working better.

The turning points were the enthusiasm of the children. In the course of the work videos, we were uploading on social media, the school was visited by several news channels and the school's work was shown on the news channel so that our school became a digital school. Got better results than I thought. 3 years ago, my students didn't know what google is and now these students know internet well and students teach internet to my staff teachers. In the beginning we used internet from mobile hotspot in laptop. But by Mr. Prakashbhai Patel we have been provided high speed internet facility with 100 MBPS speed by laying fiber wire from Vansda to Rangpur for a total length of 12 km. currently our school is the only one in the entire Vansda taluka which has 100 MBPS internet speed. All 8 rooms in the school have smart TVs. Children study in tablets and smart TVs.

### **Time taken to bring the change, the processes involved, the failures, the successes, most importantly; the learning**

My school is located in an area where it is difficult for a child to even get a slate and a pen. But I am glad that today my children have tablets and laptops. The credit goes to my school family. Due to the hard work of me and my teachers, we have modernized the school by donating approximately 1 crore 10 lakhs to the school from 2015 to 2023. It is a dream come true for a school in a tribal area to receive such a huge donation.

As the head teacher of the school, my job is to take my teachers along. My job was to remove the difficulties faced by the teachers and see that the teachers give good teaching work in an innovative way.

The task of bringing the school child into the modern time system seemed difficult at first. But due to the enthusiasm and passion of the children, this task became easy. It took us 3 years to prepare a school child, now the situation is such that if a teacher is on leave, the children themselves turn on the smart TV and continue the education work. The teachers of the school have made videos of all the units of all the subjects of class 3 to 8 and uploaded them on the YouTube channel of the school. So that school children can do education work through this video.

But this task was not easy. In addition to school hours, he had to work in extra hours. In which my teachers and children cooperated a lot. The best result we got from the videos we made was during covid 19. Apart from the children of my school, the children of other schools have also used our videos a lot. After making the videos we created google tests of all the subject units of each grade. We created a total of 465 Google tests and more than 2 lakh children from across Gujarat continued their studies by taking these Google tests during the

Covid-19 era. The important thing is that the school children also helped the teachers by creating these google tests. One of the biggest benefits we've seen in making kids tech-savvy is when creating these Google tests. The benefit of providing technology-based education to children is that children learn by themselves. From the year 2015 to 2021, my school had a shortage of 2 teachers. However, with smart education we did not feel that loss. We just guided the children and the children started learning by themselves.

We have created educational tiles for children of class 1 and 2. These educational tiles are designed so that children can write and count. Even if the class 1 and 2 teacher is on holiday, children can count examples and write words in the language throughout the day in these educational tiles. The children of class 1 and class 2 are also given digital pads instead of slates. Thus, efforts have been made to ensure that my children get digital education from their childhood.

Thus, we have tried to provide technology-based education for all, whether it is a child of class 1 or class 8. In which our donors have helped us a lot.

**The role of school leadership, behavior modeling and example setting by the head of school and other factors relevant to the transformation, other key influential personalities/groups – their feelings/views (expressed in verbatim as quotes)**

First of all, I informed my teachers about Technology. Then we started coming to school 30 minutes early. Every Sunday also we continued school from 9 am to 12 am with the consent of the parents. So, children can be given more time. Science teacher take responsibility of all 3d glasses and VR box. All teacher used this technology and learn more and more in technology. As a leader, I had just given a platform to children, and all of them depend on the skills of children. The children were so enthusiastic about teaching that all my children in grades 5 to 8 have their own email addresses. Kids have also made their own android application. How to cast a mobile on the projector and how to cast a laptop in the mobile. All these kids have started learning on YouTube itself. In the lunch time, children started learning about YouTube. Every month my school intermate use is more than 100 GB. I have really enjoyed this from kids.



**The theory of change – which means the turning points for the school head/leader, the reflections on what worked and why or the ‘mantra’ for change.**

My main motive behind making the school digital was to make the children learn by themselves. After finishing my entire life, I was confident that I did something good. I did not even imagine being able to become such a

hosiery in a Tribal area children's technology. Today, my school work always remains on social media. District teachers come to visit my school. This innovation has also been encouraged at the state level. This work of my school has also been displayed in the newspaper. As a Leader, I have been very much happy to this work. My children have won all the competitions organized by the government. In which I want to tell you some things.

**From 2015 to 2024**

1. We have represented Navsari District in State Level Science Fair 6 times.
2. We have represented Gujarat State in National Level Science Fair 3 times.
3. Toy Fair was organized in 2019 by our Prime Minister Shri. In which a toy made by school student Jenil Patel was selected at the national level.
4. A total of 17 innovations are currently operational in the school. Out of which we have presented 7 innovations at the state level.

5. Even in science and technology, children have presented their projects continuously up to the district level for the last 9 years.
6. We have created 10 math games to help kids learn on their own in math and science. So, children solve math puzzles by playing these games during lunch time. The school has also created its own science calendar. With the help of which children solve science puzzles by themselves.
7. The school has its own server so that children can give online tests and their data can be analyzed.
8. The school has been awarded the cleanest school in the district 2 times.
9. The school has won the district green school award 2 times.
10. As the head teacher of the school, I have received the award of the best teacher of the state in 2022.
11. The science teacher of the school has received the award of the best teacher of the district in 2021.

All this is possible with our team work.

From 2015 we start school 35 minutes earlier. So that the school can be developed by giving more time to the children. Free tuition is provided to the children by keeping the school open from 9 to 12 every Sunday. Even during vacations, school starts a little earlier and maths classes are started for children. Due to which children from surrounding villages also come to study in my school. In all this work my teachers have been with me as a leader.

**Due to the hard work of me and my teachers, we have modernized the school by donating approximately 1 crore 80 lakhs to the school from 2015 to 2024.**