

## **Case Study**

**Developing programs in an under-privileged girls' school to increase short-term and long-term financial independence as well as access to formal financial servicesin order to increasing enrollment, reduce drop-out rate and include under-served populations in the formal banking sector.**

**Author: Rahil Doctor**

**Age: 18**

**Hill Spring International School, Mumbai.**

# **Summary of Report.**

**Aim of this study:** This is a personal case study discussing the importance of providing financial security, a stable source of income and access to formal banking services to increase the success of an educational program for underprivileged girls.

**Method:** In this paper I draw from my experience with Nischay Girls School in Jaipur, India and describe successful efforts to increase financial independence of girls going to school as well as provide data to assess the impact of these measures on relevant metrics. The programs aim to enhance the value proposition provided to parents in sending their daughters to school instead of keeping them at home to do housework or putting them to work in low-paying service jobs.

**Part I: Identifying the Problem – under-enrollment and high dropout rate from primary to secondary school**

**Identifying an un-addressed cause:** Opportunity cost of sending girl child to school in terms of lost income from engaging in productive activity.

The paper first argues that the underlying un-addressed issue for the high dropout rate from primary to secondary school is the high opportunity cost of sending an able-bodied member to school. Even though the school is free of cost, the lost income from engaging the child in other work or preferring that they take care of the housework so that the parents can spend more time being employed offsets the perceived value of education in the minds of the parents.

**Part II: Solutions to above problem and their results – Increasing the skill-levels of students so that they can make higher salaries part time and afford to come to school**

- **Solution 1:** Expanding an existing program to sell hand-made craft kits by :-
  - Optimizing processes to produce kits
  - Developing sustainable sales and distribution channels
  - Increasing visibility by effective marketing techniques



**Results: Increased total revenue from selling craft kits, number of students benefiting from the sales of craft kits and income received from sales of craft kits per student.**

CRAFT KITS			
	2010-2011	2014-2015	Improvement
No. of students making Craft kits	16	50	213%
No. of types of kits	30	200	567%
No. of craft kits made	1200	5000	317%
Average Price of kits	200	350	75%
No. of craft kits sold	700	5000	614%
% of craft kits sold	58%	100%	71%
Revenue from kits	140000	1750000	1150%
Likes on Facebook page	4000	20,000	400%

Earnings from craft kits in year 2014-15	
Number of craft kits sold	5000
Average Price per kit	INR 350
Revenue from craft kits	INR 1750,000
Cost of materials	INR 1250,000
Reductions for use as expenses	INR 100,000
Profit	INR 1,400,000
No. of girls working	INR 24
Annual Income to each girl	INR 56,250
Monthly Income	INR 4,652

- **Solution 2:** Providing training and employment opportunities for children to become beauticians.
  - Partnering with local beauty salons to provide training to girls.
  - Developing a pipeline for girls to be employed in these beauty salons part-time.
  - Providing free-lance opportunities for girls to provide these services to trusted customers for large weddings/functions etc.



**Results: Provide an extra source of income to girls so they can work part-time in a higher paying job and come to school.**

Avg Wages for Part-time Jobs (Rs/month)	Beautician Income (Rs/month)
Washing Clothes	1100
Washing Utensils	800
Cleaning Homes	1000
Low-end Restaurant Cleaner	700
Low-end Restaurant Waitress	1000
Behind Shop Counter	1200
	Average Improvement 262%

- **Solution 3:** Providing training, employment opportunities and sales channels for children to make and sell chocolates.
  - Revisiting the existing program in chocolate making.
  - Developed a plan to grow operation based on success of sale of craft kits.



**Results:** The next stage of developing the program fully is in progress.

**Part III: Discovering new problems and addressing them.** Girls had little access/knowledge of banking or savings plans and it often ended up getting spent unnecessarily.

**Solution:** Provide resources and information to encourage long-term savings by :-

- Emphasizing the importance of saving and describing why it is necessary.
- Providing access and information about opening various types of savings accounts
- Having a Bank Day Excursion to actually go and open these accounts for girls.
- Keeping track with the bank accounts and ensuring that they are being used and saved.

# Complete Report

## Table of Contents.

Part 1: The Problem – Under enrollment and high dropout rate from primary to secondary school

- About Nischay.
- Developing an understanding of the underlying issues at play
- Already existing solutions to some of the issues
- The un-addressed issue – opportunity cost of sending a girl child to school
- Drop-Out Rate Analysis

Part 2: Solutions – Increase financial independence of the girl child and enhance the value proposition for parents to continue sending their daughters to school.

- Current Sources of Funds and Income
- Solution 1: Increasing Sales of Craft Kits and remodeling the use of the finds to put money in pockets of the girl
  - Seeing potential in the craft kits
  - Identifying bottlenecks in the production to sale process
  - Tackling the problem
  - Next Steps
  - Going Beyond Facebook Sales
  - Conclusions and results
- Solution 2: Help Students Level up to higher paying part time jobs outside of school.
  - Maximizing Value from Part Time Jobs
  - Selecting the appropriate Part time job.
  - Creating opportunities for training and employment as beauticians
    - The Training Provided
    - Acquiring Jobs post training
    - Conclusions and Results.
  - Creating Opportunities for training and employment in Chocolate making.
    - Description of chocolate making activity
    - Future direction of Program.

Part 3: Increasing Financial Security and Independence over the longer term.

- The Problem – lack of knowledge and acumen in financial planning and a habit of saving.
- Solutions To the Problem
  - Hold Workshops to emphasize importance of saving and banking as well as provide information about various types of accounts and savings structures
  - Identifying appropriate accounts and schemes to satisfy the requirements of the girls
  - Providing financial solutions for girls in Grades 1-4
    - Talk about SukanyaSamridhi and Postal Savings Account.

- Conduct excursions to the bank and open these accounts for students.
- Provide Individual Financial Counseling to help parents and girls portion of parts of their incomes to these accounts.
- Follow up with parents and students on their usage of the accounts.
- Providing financial solutions for girls in grades 5-10
  - Talk about PPF and Recurring Deposit accounts
  - Conduct excursions to the bank and open these accounts for students.
  - Provide individual financial counseling to help parents and girls portion of parts of their incomes to these accounts.
  - Follow up with parents and students on their usage of the accounts.
- Conclusions and Results

PART 4: Overall Conclusions and Results.

PART 5 References

## PART 1: THE PROBLEM

### **Under-enrollment for under-privileged girls in school and high dropout rate from 2-3 grade and 5-6 grade.**

#### **About Nischay:**

Nischay Girls School is a school in Jaipur that provides free education to 500 underprivileged girl students in the local area. It teaches different levels of classes in Hindi, English, Computer Science, Mathematics and Environmental Studies for regular school throughout the year. Additionally it has programs in Physics, Chemistry and Biology as well as workshops in art, dancing, acting and some vocational skills over the summer. It is affiliated with the Neerja Modi School, an International Baccalaureate school and shares a campus and resources with that school. It was founded on 15<sup>th</sup> Oct 2003 and had a batch of 50 students and now has grown to a strength of 500. The vision is to get to a 1000 students in the next three years.

#### **Developing an understanding of the underlying issues at play**

I began volunteering as a mathematics teacher at the Nischay Girls School in Jaipur in the summer of 2011. The school ran summer programs as extensions of the normal school program, for students who needed to complete the material, were behind on something or had less time during the academic year. I spent time in my summer and winter breaks teaching various topics in mathematics to different classes from grades 6-10. Going back every year I would often find a lot of girls from the previous year missing. Some of these, of course, were students who chose not to enroll in summer school but were still continuing with regular school. However some of them would drop out of school all together. Digging into this deeper I found out the primary to secondary school dropout rate for females in India was about 56% (as compared to 32% for males). On talking to numerous social workers at Nischay who were responsible for outreach to the community, enrollment and other administrative activities, I began to learn much more about the issues preventing a girl child from pursuing secondary education after completing primary education. In 2010 10 the Primary to secondary school dropout rate was 55%.

Many issues plague why girls from underprivileged families do not go to school. I would like to divide these factors into two categories:-

#### **1. Cultural Factors:**

- a. Patriarchy: girls don't need to go to school and rather learn how to do housework
- b. A fear that going to school might encourage indulgence in or exposure to sexual behaviors.
- c. Lack of faith in such educational institutions and/or the government.
- d. Lack of understanding of the value of education, especially for women.

- e. Belief that too much education might reduce the girls chances of finding a husband.
2. Economic Factors:
- a. School too expensive
  - b. Opportunity cost of lost income from engaging the girl child in other productive work.
  - c. Need of an extra hand at home to run errands/perform housework.



*Teaching math to students over the summer and learning about the problems faced by female students in India and the students at Nischay Girls School and the detriments to completing their education.*

#### **Already existing solutions to many of these issues**

In many ways Nischay Girls School was setup in a way that attempted to address these problems, which is what contributed to its success as a school for underprivileged girls. For example all social workers hired were women and there was always a chaperone present in every classroom and field trip. Social workers were trained in persuading parents and assuaging their fears to show them the value of education and to keep their daughters enrolled in school. The material and training that the social workers possessed were designed to help deal with the cultural factors mentioned above. Additionally the curriculum was tailored to enable girls to secure stable jobs on graduating as well as pursue further studies. To

address the economic factors there was just one solution being implemented: a midday meal was provided free of cost to the children as part of the government Midday Meal Scheme. Although the midday meal scheme in India has been highly successful in providing nutrition as well as in increasing enrollment and attendance at schools it still does not completely compensate for the opportunity cost of sending a child to school for a whole day.

### **The Un-addressed Issue – Opportunity cost of sending girl child to school**

**Table 1. Shows the cost (in rupees) of a midday meal for an average household vs the expected wage from engaging in a low-skilled service job.**

Costs of Self Providing Midday Meal/person.		Average Income for months work	
Cost per meal	40	Average Minimum Wage of Country daily)	200
<b>Monthly</b>	<b>1200</b>	<b>Minimum Monthly expected wage</b>	<b>6000</b>
		Average wages for low-skilled Service jobs daily)	230
		<b>Monthly Expected wage</b>	<b>6900</b>

Even with Midday Meal, a young child was worth more in the work-force than in school.

A simple analysis of the cost of a meal for a four-person household in India as compared with the cost of not having a child at home for the period of 6-8 hours is shown in Table 1. As it can be seen the midday meal only scratches the surface in being a real economic incentive to send a girl child to school. Even compared with the minimum wage the midday meal is not enough of an economic incentive to compete with lost wages from going to school.

If not working outside then girl child is required to work at home.

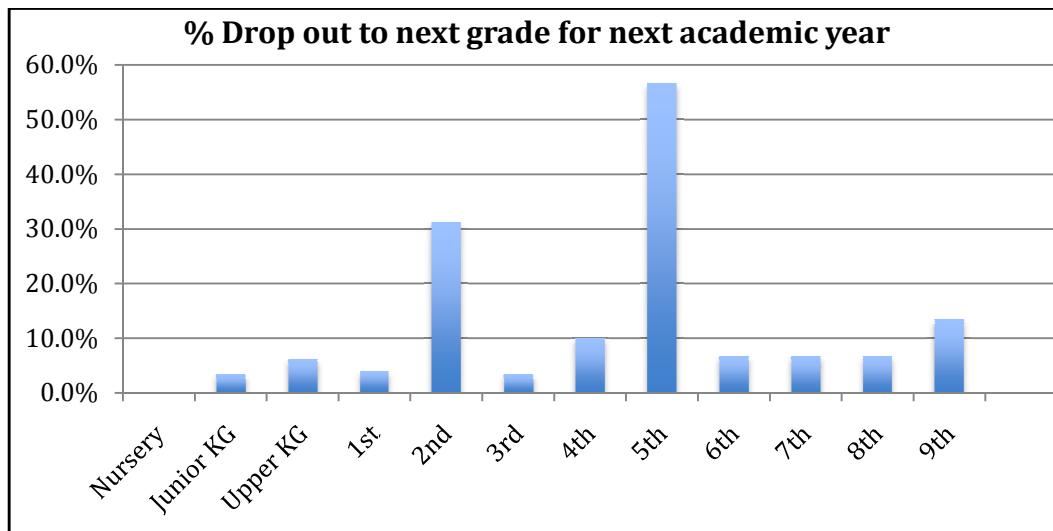
In addition to this factor, the housework is something that needs to be done. Even when the girl child is not engaged in labor outside of the house parents prefer that the housework be taken care of by the girls since the opportunity cost of either parent staying at home and doing it is even higher since they can command higher wages in the workforce. Therefore there is a strong economic force to keep the girl child at home or employed. Although the hours of the school were designed so that a student could finish their morning errands and come to school and be home in time to do the work for the evening, this was still a problem.

I strongly believe that cultural change can be brought about by both directly addressing the culture and by providing the correct economic incentives. Since so much was being done to address the cultural aspect, I began to think about how this problem could be solved by developing a system that economically incentivizes a student to go to school and overcome the forces that keep them at home.

## Dropout Rate Analysis.

**Table 2: Enrollment of students in different grade levels during year 2011/12, number of students that continued into the next grade (e.g. 13 out of 30 students moved to 6<sup>th</sup> grade from 5<sup>th</sup> grade on completion of academic year 2011/12). Note: New students are also admitted to fill up classrooms at each grade level. The chart below plots the dropout rate for each year showing unusual spikes from grades 2-3 and 5-6.**

ACADEMIC YEAR <b>2011/12</b>	Grade Level	Enrollment	No. of Students staying in School	% Dropping Out
	Nursery	70	70	0.0%
	Junior KG	60	58	3.3%
	Upper KG	50	47	6.0%
	1st	50	48	4.0%
	2nd	45	31	31.1%
	3rd	30	29	3.3%
	4th	30	27	10.0%
	5th	30	13	56.7%
	6th	15	14	6.7%
	7th	15	14	6.7%
	8th	15	14	6.7%
	9th	15	13	13.3%
	10th	15	15	N/A
	Total	440	393	10.7%



As observed in the data in table 2, the irregular distribution of the students shows that not all students make it to the next grade. Attempts are made to increase the enrollments in Nursery every year and the previous grades taper in number of students as a result of endemic dropout patterns. Students join from different schools/different cities to fill up the classrooms as per the assigned number of seats

per classroom. The most dramatic drops witnessed are from grades 2-3 and from grades 5-6. By the second grade students have learnt to read and write in Hindi and English and thus parents take them out of school because they feel that this is all that is required. And at grade 5 girls are 11 years old and old enough to engage in low-skilled labor and take on more responsibility at home and leave because of that.

What the proposed solutions were targeting was to reduce this dropout rate from 5<sup>th</sup> to 6<sup>th</sup> grade by sweetening the value proposition for parents to send their kids to school and make it in their economic interests to keep the child enrolled

Note:there is not a one to one correlation between the number of students who drop out from a grade and the difference in head-count between two grades. New students are admitted as well. However this number is small and is ignored in the calculation of dropout rates as per the standards of calculating drop-out rates set by UNICEF

## PART 2: SOLUTIONS

### INCREASE FINANCIAL INDEPENDENCE OF THE GIRL CHILD AND ENHANCE THE VALUE PROPOSITION FOR PARENTS TO CONTINUE SENDING THEIR DAUGHTERS TO SCHOOL

Based on these problems I thought that solutions needed to be provided to overcome the true opportunity cost of sending the girl child to school. Obtaining more funding from the government or any other body is a very challenging task and thus the source of these funds must be independent as well as sustainable in the long run.

#### **Current Sources of Funds and income.**

Currently the Nischay Girls School has several sources of funding.

Neerja Modi International School: Since the school is run in tandem with the Neerja Modi International School, which is a private school in Jaipur, a large portion of the funding comes from there. The classrooms, labs etc. are all provided by the school.

Fundraising Events: The family trust that runs the school holds an annual fundraising event to raise money for specific additions or facilities in the school as well.

Adopt a child Program: The Nischay School runs an “adopt a child program.” The calculated cost of putting a girl through school is Rs. 5000 per year. Individuals in the community can opt in to donate Rs. 5000 for a child and get updates on the child’s progress as well as get invites to all events run by the school.

Craft Kit Sales: The girls studying at the school make hand-made craft kits to sell to the local community. These are “do-it-yourself” kits that can be used as cards for different occasions, cushion covers, decoration pieces, and other household items. A description of this craft kit can be found in Image 1 below and a link to the webpage of the kit is provided in References. The money obtained from these kits contributes to smaller classroom expenses.

*Image 1. Example of a holiday themed craft kit in box and its fully assembled state (left). Full Product line of craft kits (right)*



Aprons and Pencil Cases
Art Appreciation Kits
Bag
Block Printing Kits
Cards
Cushion Covers
Decoratives
Door Hanger
File Folders
Hand Puppets
Hand Puppets & Wall Hangings
Ready made Cards and Invites
Toran
Wall Hangings
Wooden Craft Kits
Wooden Standees

**Part-Time Jobs:** Almost all the students, especially the older students (above 6<sup>th</sup> grade) had part time jobs outside of school that were an extra source of income when they were not in school. Most of these jobs were low-end service jobs. The part-time wages from these occupations was really small as can be seen from Table 3 provided below

**Table 3: The average monthly wages for part time workers in low-end service jobs for the state of Rajasthan as per data from paycheck.in<sup>3</sup>. Part-time here is defined as working 12-18 hours a week.**

Avg Wages for Part Time Jobs (Rs/month)	
Washing Clothes	1100
Washing Utensils	800
Cleaning Homes	1000
Low-end Restaurant Cleaner	700
Low-end Restaurant Waitress	1000
Behind Shop Counter	1200

Till now these funds have been sufficient in maintaining a good quality free education to sustain the 500 students enrolled. Funds can also be mobilized at short notice to increase enrollment to 700 students.

When I joined however, except for a small vocational training program in basket weaving and chocolate making, no programs existed to put money into the hands of students. This is what I focused on.

I came up with **two solutions** to target this problem. The key idea was to set aside time and resources for the girls to engage in productive activity with direct financial benefits and put money in the student pocket to take home. Thus the student could learn in school as well as make money. The two solutions are described below.

## **SOLUTION 1. Increase sales for the craft kits and remodel the use of funds to put money in the pockets of the students.**

### **Seeing Potential in the Craft kits.**

The craft kits that were being made by students are a really great product. There are now 200 different types of craft kits available for purchase, although when it started in 2009 there were only 30. Having manned the booths where they are sold in local fairs and events in different cities, I noticed that the people who were buying it were really happy with it and most the purchasers were repeat customers. The kits were an ideal gift and since the girls kept coming up with new ideas for what the kits contained, Customers were interested to purchase the latest version. Other volunteers had similar experiences and we received a lot of good feedback for the product. Having high customer retention as well as customer satisfaction, indicated that this strong product was being undersold. It was a small operation that lacked scale.

Steps I took to address this.

### **Identifying the bottlenecks in the production to sale process.**

#### **Old Distribution Channel**

1. Few Points of Sale: The craft kits were sold in a few local fairs in Jaipur itself and minimal effort was being made to reach a wider audience.
2. No Official Marketing: The main form of marketing was word of mouth marketing where new customers came because a friend/relative who had either bought the product, and told them about it or they had received it as a gift from them.
3. Informal process: new fairs to put up booths in were found merely by chance and “meeting someone at a party.”
4. Inactive Facebook page: There is a facebook page called “HamaraNischay” setup to promote these products. But the activity on the page was really low with posts only about once in 2 months. It only had 4,000 likes.
5. No Online Ordering: There was no way for someone who wanted to order a kit to do so using an online method so people who saw the page on facebook had to go wait till the kit was available at a fair in their local area.

As a result of this there were a lot of kits lying around unused. Since there were many students enrolled in the school, availability of human resources was not a

problem. Production could have increased easily on short notice and consumer demand and interest was clearly there.

Thus it was clear that in this process the bottlenecks were the marketing/sales and distribution channels. I saw potential in these kits and decided to figure out a way to expand this endeavor and increase sales.

### Conclusion - Bottleneck: Sales and Distribution Channel.

#### **Tackling this problem.**

The first step was to create the sales and distribution platform that could reach a wider audience. Since the facebook page already existed I decided to take over management of the page.

My aims for **HamaraNischay Facebook Page** were to

##### **1. Increase its visibility**

This was done by getting a large number of people to "like" and view the page. The page now has 20,000 likes and thus everytime a post is made 20,000 people can view the post.

##### **2. Increase frequency of posts**

I posted new content on the page once or twice a week so that people were constantly aware of the craft kits, latest developments etc.

##### **3. Improve content of the page and have it reflect the products offered.**

The type of content posted was also enhanced. Care was taken to make sure that each product was represented on the page. Updates for the location and timing of Nischay stalls were provided so that people knew to look out for the craft kits. The page was a good way to call for volunteers at these fairs as well.

##### **4. Creating an Online ordering System.**

Since we were getting so much visibility on the page people were interested to buy the product but didn't have a chance to physically go to a stall. There was no way to order them online itself. For this I setup a system where anyone interested in a product could contact an appointed person with an order inquiry. They would have the craft kits delivered to their homes and pay us using Paypal. This really increased the sales of the product. We also had a gifting option, where someone could directly order it to their friends place and we would gift wrap it for them and insert a small card.

The Facebook page was successful in that we managed to sell all our unsold craft kits and developed a backlog of what needed to be sold.

The screenshot shows the Facebook profile of 'Hamara Nischay Product/Service'. The cover photo features a group of young girls in uniform. The timeline feed includes a post from May 7th with a Mother's Day message and a post from April 30th. The 'About' section contains contact information and a website link.

*HamaraNischay Facebook Page (Top and Bottom)*

The screenshot shows the 'About' tab of the Hamara Nischay Facebook page. It displays the 'Page Info' section with details like the start date (2009), short description (Do it yourself craft kits for kids), company overview (kits made by girl students), general information (purchase info), and website (hnischaygirls.blogspot.com). The cover photo and other tabs are visible at the top.

## Next Steps

### Increase Production and Restructure Business Model.

*Volunteers and older students spend time together to make the craft kits after school hours.*



Since the Facebook page was highly successful in reaching a wider platform, the next step was to figure out how to increase the production of the craft kits.

Previous model:

1. the students were making the craft kits as volunteers
2. funds generated were used to satisfy small classroom expenses.

I helped to restructure this process so as to put money from the sales of the craft kits directly into the pockets of the children. This would encourage more students to participate as well as give them a share of the profits.

New model

1. Older students (grades 6-10) were allowed to participate in the activity because they were likely to be more responsible with the money.
2. The profits were divided among the students weighted by how much time they put in which was recorded on time-sheets.
3. Some profits were used to satisfy some classroom expenses that the craft kits were used for before.

A lot more students (44 as of now from 16 in 2010) participate in this activity since they now got paid for it. Mobilizing the student body to make the craft kits was very successful in both solving the initial problem of providing a strong economic incentive for secondary school students to stay in school and in increasing production of the kits to meet the increased demand. Additionally all summer volunteers and teachers also help with making the craft kits for no remuneration.

### **Going beyond Facebook sales.**

In addition to creating a sales and distribution channel through Facebook, I realized that the initial model of selling at local fairs was also not a bad way to go. The sales at each fair that HamaraNischay had a stall in were usually high. There were three fairs in Jaipur itself that the kits were sold in, all sold more than 80% of their inventory. The problem was that Nischay was present at very few fairs. To increase sales further we decided to formally outreach to more weekend fairs, art fairs, cultural fairs, product design fairs to get more visibility. Many such fairs mainly in Mumbai and Delhi were approached (since the other volunteer working with me was from Delhi). In the end we managed to secure permanent positions for four fairs in Mumbai and three fairs in Delhi for us to sell the product.

**RESULTS and CONCLUSIONS:** Revamping the craft kit sales operation has been the most successful operation in terms of short-term revenue generation for the students at Nischay. Table 4.1 and 4.2 below has some numbers.

**Table 4.1: Some statistics about Craft Kits (please note that numbers have been rounded off for convenience)**

CRAFT KITS			
	2010-2011	2014-2015	Improvement
No. of students making Craft kits	16	50	213%
No. of types of kits	30	200	567%
No. of craft kits made	1200	5000	317%
Average Price of kits	200	350	75%
No. of craft kits sold	700	5000	614%
% of craft kits sold	58%	100%	71%
Revenue from kits	140000	1750000	1150%
Likes on Facebook page	4000	20,000	400%

**Table 4.2: Estimating the monthly income per student (note numbers have been rounded off for convenience. It is assumed in this model that all girls worked equal hours)**

Earnings from Craft kits in year 2014-15
Number of craft kits sold
Average Price per kit
Revenue from Craft kits
Cost of materials
Reductions for use as expenses
Profit
No. of girls working
Income to each girl
Monthly Income

## **SOLUTION 2: Help students level up to higher paying part time jobs outside of school.**

Although sales from the craft kits were a good source of income, not everybody was included in this program either due to time commitment problems or lack of interest. Not all students were inclined towards sitting and making crafts kits. Even for those who were the income from this craft kits were not enough. ([economics of craft kits](#))

### **MAXIMIZING VALUE FROM PART TIME JOBS**

Since all students already had lower end part-time jobs, I had the idea of trying to figure out how resources of the school (time + money) could be used to raise the skills of workers so that they could engage in part time jobs that commanded higher salaries. I made a list of jobs and asked the students which job they would be most interested in. Out of the six vocational training jobs that were selected as per the following features.

1. Good Salary
2. Availability of Jobs
3. Inexpensive Training
4. Minimal Equipment Required

Two jobs were selected for vocational training namely :-

1. Beautician
2. Chocolate making.

### **Creating opportunities for training and employment as a beautician.**

The Training provided: Starting in 2012, we partnered up with three beauty salons in the vicinity that agreed to provide apprenticeship and training to the students of NischayGirlsSchool free of cost. Students spend time as "interns" for one or two hours a week during the training phase observing and learning techniques for various tasks like waxing, manicures, pedicures, applying make-up of different types for different occasions. There is a set syllabus that beauticians need to undergo within the parlor itself and the same training process was offered to the students of Nischay.



*On the job training provided by one of the partner beauty parlors that agreed to help out with this project.*



Acquiring Jobs Post-Training: We just completed a pilot batch of 6 students that finished training in December 2012. The next step was to help the girls look for jobs where they could exercise their newly acquired skills. The beauty parlors themselves agreed to hire two members each for part time work and the 6 girls from the pilot itself worked at these parlors part-time. Over time we have managed to get a few more girls hired at these and other parlors in the city, but since a job at a parlor is really competitive to reach a larger scale we needed to think of something else.

Starting a Free-lance beautician service: We decided to start a free-lance service where girls would go to the persons' home and provide their beauty needs. Due to issues of safety and security, we decided that we would only cater to special events like weddings and other wedding functions, parties and other cultural events where numerous girls could be sent on one job and cater to a minimum of four people at a time. It is customary in India, especially for traditional functions, for women to get ready together at a single location and it was this market that we thought would be the best to capture.

## RESULTS and CONCLUSIONS

**Table 5. Income from new part time beauty parlor jobs. Part time defined in the same manner (12-18 hrs of work).**

Avg Wages for Part Time Jobs (Rs/month)	Beautician Income (Rs/month)		
Washing Clothes	1100	In parlor	3500
Washing Utensils	800	Free-lance Peak	4000-5000
Cleaning Homes	1000	Free-lance Off peak	2000-3000
Low-end Restaurant Cleaner	700	weighted average	2700-3700
Low-end Restaurant Waitress	1000	Average Improvement	262%
Behind Shop Counter	1200		

Calculations: Girls can make about 400-500 Rs just for doing one such sitting which took about 2-3 hours and could get upto 10 per month in peak season and about 406 per month in off peak season. 4 months of the year were considered peak and the rest off peak. The weighted average is the average monthly income for free-lance work to account for peak and off-peak season. This was a vast improvement to what they were earning before as per Table 4 with a 262% increase in income. 262% was calculated as the increase in income from parlor and free-lance averaged out over the average wages for other part time jobs.

Now 50 girls have been trained as beauticians and either work independently or obtain gigs with the help of the school. This too has been a successful operation enabling girls to come to school while simultaneously be financially independent.

## **Creating opportunities for training and employment in Chocolate making.**

**Description of Chocolate Making Activity:** The chocolate making course was conducted in the summer of 2009. A local chocolate maker was hired to spend 4 weeks in the summer teaching selected students how to make chocolate. The Neerja Modi School invested in the equipment, utensils and teacher required to make the chocolate and provide the training. Once this was learnt chocolates were sold to students of the Neerja Modi School for beta testing. Positive response was received from the students and the chocolates were considered to taste good. The packaging for the chocolate box has a similar aesthetic to the craft kits and is made by the same team. It makes good gifts and is good for personal consumption as well. This is a small scale project at the moment, and usually has popularity at festival times. Seeing the success of the craft kit project future plans have been made.

**Future Plans for chocolate making:** The plan for the future of this operation is to make the chocolates with the equipment invested in with the help of 2 volunteers and sell them through the same distribution channel as the craft kits. i.e. through

1. The Facebook page
2. Putting up stalls in fairs and adding this product to the craft kit stalls.  
Chocolates open up access to many other food fairs.
3. To the students and families of the Neerja Modi School.

A lot still needs to be done to make this project a success and the success of this product still needs to stand the test of time. However, we are excited to move forward with it.

*Chocolate making program. Both volunteers and students were trained in making chocolate by an expert.*



## **PART 3: INCREASING FINANCIAL SECURITY AND INDEPENDENCE OVER THE LONGER TERM.**

**The problem - lack of knowledge and acumen in financial planning and a habit of saving.**

Given that a lot of girls already had a source of income and that all these programs had been created to increase their source of income, there needed to be measures to ensure that this income was not spent unwisely. Children being children were spending all the leftover money they had and it was important to instill in them the value of saving and also the means to do so. The lack of financial inclusion is a big problem in India. Only 14% of people in India over the age of 15 have any type of formal savings account. The number is smaller for people younger than 15 years of age although not well documented.

### **Solution to the problem.**

Given this problem it was decided to provide means to the students to save the money that they were earning so that they could invest in their future. A lot of plans existed for the students to have access to banking and savings facilities. And the main task was to ensure that the students are aware of these and understand how to use them. To do this the following measures were taken

1. Emphasizing the importance of saving and describing why it is necessary.
2. Providing access and information about opening various types of savings accounts
3. Having a Bank Day Excursion to actually go and open these accounts for girls.
4. Keeping track with the bank accounts and ensuring that they are being used and saved.

- Hold Workshops to emphasize importance of saving and banking as well as provide information about various types of accounts and savings structures

To implement these steps, first I held workshops at the school where I talked about the importance of saving money using examples of people who had saved money and used it to go to college, or buy something big for themselves, or use the money to start a small business. I explained the concept of interest and how money could increase by just sitting in a bank to further increase their interest in opening an account.



*Hosting workshops to educate girls about the importance of saving, how to be financially responsible and to provide information for types of savings schemes available for them.*



### Identifying appropriate accounts and schemes to satisfy the requirements of the girls

Based on the needs of these young girls I found four types of bank accounts that they were suitable for their purposes. Each of the bank accounts had slightly different characteristics and which account to open for which student was decided on a case by case basis according to the specifics of the spending and earning patterns of the individual.

1. Sukanya Samriddhi Account
  - a. 9.1% Interest rate per annum
  - b. Minimum of Rs. 1000 Deposit per year
  - c. 50% can be withdrawn when the girl child turns 18
  - d. the rest can be drawn after completion of 21 years.
2. Public Provident Fund (PPF)
  - a. Interest rate of 8.7% p.a
  - b. Minimum deposit is Rs. 500
  - c. It is a 15 year scheme
  - d. Withdrawal is permissible from the 6<sup>th</sup> financial year.
3. Recurring Deposit in a Bank.
  - a. Rate of interest is 8.75% p.a.
  - b. Minimum amount in account – Rs. 50.
  - c. No lock-in period. Money can be withdrawn as and when need arises.
4. Savings Account – Post Office or bank
  - a. 4% interest
  - b. Minimum amount Rs. 50 if only savings account opened, Rs. 500 minimum balance if checking account opened as well
  - c. No lock in period, deposits and withdrawals made on an as needed basis.
  - d. Cheque facility available

Determining what kind of account was suitable for the girl child.

On a deeper look at the accounts described above one can notice that there are two types of accounts.

1. Longer term accounts with higher interest rates, where the money is locked in and a large amounts of money can be withdrawn
2. Shorter term accounts to facilitate convenience and easy moving of money but with lower interest rates.

Based on the nature of the accounts and the services they provided we divided that girls into two categories :-

1. Grades 1-4
2. Grades 5-10.

## **PROVIDING FINANCIAL SOLUTIONS FOR GIRLS IN GRADES 1-5**

Accounts opened: SukanyaSamridhi + Postal Savings.

**The SukanyaSamriddhiScheme** is designed specifically for the young girl child, provides tax benefits and is partly subsidized by the government. The fund is setup in such a way that both the girls and their parents can make monthly deposits into the account and over time accrue interest compounded depending on the amount they put in. The account matures once when the child is 18 years old and can be closed when the girl is 21 years of age. This period overlaps well with financial needs of the girl child to save up to go to college as well as in the time of getting married. The account could be continued beyond the age of 21 as well. However, the benefit of this account can only be realized mainly by younger girls (1<sup>st</sup> to 5<sup>th</sup> grade) and it was really created for girls to start saving early. There is a maximum age of 10 years (5<sup>th</sup> grade) for which this account can be made. Thus this account was opened for all students from grade 1-5 whose parents were willing to participate (72% of that body). The plan was to initially have the parents make deposits and then have monthly deposits be taken over by the students or co-paid by students and parents as and when students had an income.

**Postal Savings Accounts**were also opened for the young girls in this to save money for daily use. This was opened up for them since they were very conveniently located in all post offices and it was relatively easy and convenient to withdraw and deposit small amounts of cash, learn how to write cheques and introduce girls to the concepts and habit of being financially responsible from a very young age.

**Provide Individual Financial Counseling to help parent's portion parts of their incomes to such savings measures.** In addition to setting up the accounts we had a financial planning counselor from the banks spend a day individually consulting the parents on all the information they required for managing their account and how they could apportion their income into this account to maximize the value obtained from it and to ensure that everything else in their life ran smoothly and was not compromised. They were also consulted on how to help their children use a postal savings account. This step was vital in the success of the program. It is well documented that the largest problem with any financial inclusion program to create access to formal banking for underprivileged people is long-term inactivity of accounts. Therefore helping them create a long-term plan and monitoring it is a very important facet of any program for financial inclusion.

**Following Up with Parents and Students on their usage of the accounts.**

Parents were asked and reminded about the status of their accounts during the bi-annual parent teacher meetings or reached out to by social workers and progress of each account was tabulated and recorded in an excel sheet. Based on this data 100% of all accounts started have remained active (after a period of one year) and are financially healthy. In addition to this "Bank Day" was created once a year for students to bring their monthly financial statements and get graded for their financial responsibility.



*Excursion to take younger children and their parents to a local bank to open a post office savings account along with a financial professional.*



## **FOR GRADES 5-10**

### **Accounts opened: PPF and Recurring Deposit**

For older girls a PPF account and Recurring Deposit account were opened.

**The PPF account** was so that they could put a percentage of their earned income away in the bank and have at least a 6 year period where it could accrue interest and over a 15 year period have significant savings and money to their name. This was the ideal account for longer term savings since it had a high enough interest rate and had a lock-in period so it would enable real long term savings.

#### **Recurring Deposit Account**

The recurring deposit account was opened to manage their current expenses and encourage the habit of saving as well as have data on spending and earning patterns to understand their expenses and create habits of being financially responsible.

#### **Provide individual financial counseling to help parents and girls plan for their future finances and portion their earnings into these accounts.**

Each girl was counseled by a financial planning expert from the PPF Bank as to how much of her income she should put away every month based on the actual amount she made vs how much she needed to contribute to the family and spend for her own usage. Additionally the Social workers were also given a three day workshop in financial planning so that girls could come up to them with questions in the future relevant to managing their finances

#### **Follow up with parents and students on their usage of the accounts**

Bank statements were tracked to ensure that they were financially healthy and the spending habits of the girls based on their bank statements were assessed on bank day. For the PPF's too 100% of the accounts were active after 1 year.

## **CONCLUSIONS AND RESULTS**

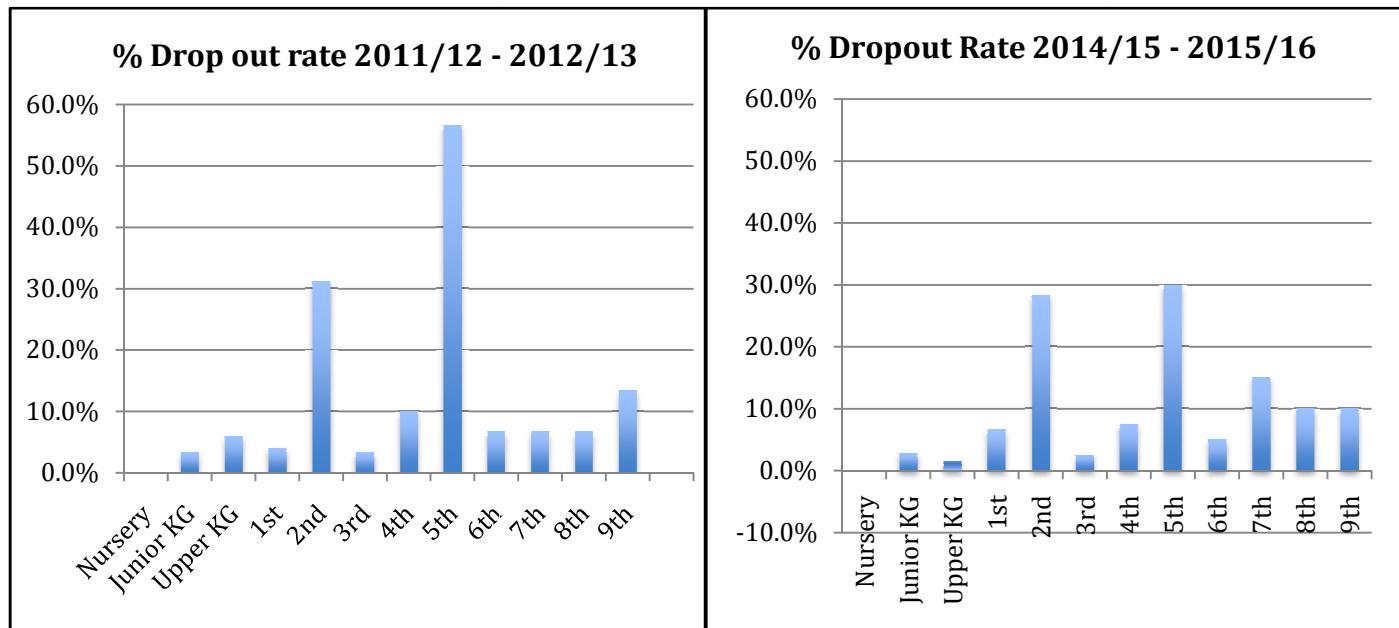
As a result of this process 100% of students from grades 1-5 and 80% of students in grade 6-10 have formal banking accounts as well as savings account that will give them returns of 7.5-9.5% p.a. compounded annually. The parents as well as students are extremely happy with this news and this is another program that adds to the value proposition offered to any new student to join and has built goodwill towards the institution to encourage fathers to keep their daughters in school.

## Part 4:Overall CONCLUSIONS and RESULTS

The programs described above have been successful. In 2012 the 5-6 grade dropout rate was 56.7%. For the transition from academic year 2013/14 to 2014/15 it is 30%. The second to 3<sup>rd</sup> grade dropout rate was 31.1% and is now 28.3%.

Table 6: Results of enrollment similar to table 1 for year 2014/15

ACADEMIC YEAR 2014/15	Grade Level	Enrollment	No. of Students staying in school	% Dropping Out
	Nursery	90	90	0.0%
	Junior KG	70	68	2.9%
	Upper KG	70	69	1.4%
	1st	60	56	6.7%
	2nd	60	43	28.3%
	3rd	40	39	2.5%
	4th	40	37	7.5%
	5th	30	21	30.0%
	6th	20	19	5.0%
	7th	20	17	15.0%
	8th	20	18	10.0%
	9th	20	18	10.0%
	10th	20	20	N/A
	Total	560	515	8.0%



Measuring these solutions however and seeing more dramatic improvements to minimize the dropout rate is a longer term venture. However, since most of the programs were aimed at the older students observations concur with expectations in that the 5-6<sup>th</sup> grade rate improved more dramatically than 2-3 grade drop-out rates.

For more rigorous we will closely monitor the enrollment numbers. In addition to this I have designed a survey to measure the satisfaction of the parents with the school, with these new programs as well as a separate survey to measure understand why some students are still leaving despite the presence of financial incentives to stay in school. Based on one survey that was conducted in the summer of 2015,83% of all interviewed participants said that the prospect increased income from these programs strongly increased their willingness to continue sending their daughters to school.

However, a lot of other variables have changed in the school as well as in the local society in four years so it is very difficult to attribute this improvement to the solutions provided to generate income for the students vs other programs that were implemented by the School. More Rigorous methods need to be developed to understand the deeper connections between these programs and decreased drop-out rates. However, it is clear that adding programs to provide financial security and independence to female children definitely improves the value proposition for a parent to send their daughter to school.

## **Part 5: REFERENCES**

1. <http://mdm.nic.in/Files/Review/Reports/2010/1st%20RM%20Report-UP.pdf>
2. <http://hnischaygirls.blogspot.com/p/about-us.html>
3. <http://www.paycheck.in/main/salary/minimumwages/rajasthan/minimum-wages-in-rajasthan-w-e-f-january-1-2014-to-june-30-2014>