

Kahani Her Mehine Ki – The Same Story, Every Month **- A Learning Tool on Menstruation for the Visually Impaired**

Section: Report of an Experience

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Abstract

Menstruation is a biological phenomenon – a body expulsion, specific to girls and women. Whether sighted, visually impaired, mute or able bodied, menstruation will occur month after month for close to 40 years in a woman's life time.

There are very few tactile tools available for the visually impaired for self learning or for facilitating learning on reproductive health. This gap was filled by designing a prototype, called - *Kahani Her Mahine Ki*, translated from Hindi language this means - "The Same Story Every Month" - referring to the menstrual cycle.

The kit is in two parts, a box and a life sized model of a truncated female body. The model is for demonstrating how to wear a menstrual product. The box houses information, resembling a mini "chest of drawers". Each drawer is a slate that can be pulled out. There are five slates containing drawings with labels in relief work with accompanying Braille and text.

The kit has been tested with ten visually impaired female students in the age group of 8 to 20 years. The feedback has been very encouraging. It requires modification if it has to be mass produced and made available to larger visually impaired audiences.

Keywords: visually impaired, menstruation, kit, tactile, periods, design

Background

“I am constantly worried that my dress will stain during my period, I cannot see.”

“I will never be able to tell the colour of my discharge during menstruation or when I need to change my cloth. To be safe, I change every few hours.”

“In a new location, I always ask someone to first show me where the dustbin is – so I can throw my pads there and not put it in the wrong place.”

These are unique anxieties of visually impaired young women.

Expulsions, secretions, discharges or flows - the human body is in a constant state of expelling what it does not require - feces, urine, sweat, menstruation, spit, dandruff or hair. The process of expelling is rejuvenating, renewing and gives the body "new life" with each expulsion. As the expelled product exits the body, it is replaced by newer products of the same nature. This cycle continues and only stops at death. Menstruation is a biological phenomenon – a body expulsion, like many others.

Whether sighted, visually impaired, with a mental disability, deaf and mute or able bodied, menstruation will occur month after month for close to 40 years in a woman's life time. In spite of this, menstruation enters into discussion as an afterthought, unlike other more socially accepted body expulsions like defecation or urination.

As for menstruation needs of a blind girl - it is hardly on anyone's radar.

A visually impaired adolescent's need is no different from that of a sighted adolescent. Both categories of girls in India go to school, receive the same degree of information on reproductive health. Both categories live within families that are rooted in tradition. Taboos are similar, practices are similar and silence around menstruation is similar.

A visually impaired girl will however have many more anxieties as compared to a sighted adolescent girl. She will never know if her dress has been stained during her period. She is often caught unawares at school; she has needs unique to her disability, during this time of the month.

A large gap area exists in the area of “Communication for Menstruation” for the visually impaired. This project was an attempt to fill this need area. The senior designer’s work in media for sexuality (L, 2005) had covered a range of issues in reproductive health that included menstruation in detail. However this body of work had never included reproductive health media for women with disabilities. Both the senior designer and the student designer recognized the huge gap. The student designer took up the challenge for her design degree project and developed a product for menstruation for the visually impaired. Her graduation project is the prototype reported in this article.

1. The phenomenon of menstruation

The simple explanation for menstruation: *“All adolescent girls and women will experience bleeding every month. This usually lasts 4 to 6 days. This occurrence of bleeding month after month is called menstrual cycle or period. Conception, pregnancy and birth, all are directly linked to periods.”*

The human body can control some of its expulsions such as defecation, urination and spitting – but only up to certain point, after which it emerges from the body involuntarily. These expulsions are “drops” at intervals, requiring a location. The drop locations are ear marked according to economic conditions and situations, either behind the bush, behind the wall or the bathroom. There is no “can wait” or ‘can control” factor associated with menstruation, unlike some other body secretions. Hence the expelled blood and blood products have to be “caught” as they drop. This “catching” or “managing” is considerably easier for the sighted and very complex for those with no vision.

The management of menstruation cannot be ignored as even a blind person will average 400 periods in her life time, just like other women with vision. From the perspective of an adolescent girl, the phenomenon of menstruation has a number of aspects that include social, economic, health and management.

1.1 Attitude to menstruation

In an Indian society the attitude toward an adolescent girl changes as soon as she “comes of age”. A number of restrictions get placed on her. She is, from that point onward, not allowed to move freely, not allowed to talk to boys and is suddenly seen with anxiety. Her marriage to a suitable groom becomes the centre of conversation. The anxiety for the safety of the girl doubles if she is visually impaired.

One must revisit early societies to understand social aspects to menstruation. Early civilizations feared menstruation, not completely understanding why women bled each month. The fear translated into a variety of practices. For example women were isolated from the family during these times. They stayed away in the forests or in specially built menstrual huts. Over time, this forced isolation translated into low esteem and shame that has carried on year after year and is reflected even today.

Even as communities slowly began to understand the science of menstruation - the negative social aspects continued and took many different forms. Today in many communities and religions across India - isolation is practiced in many a variety of ways. Menstruating girls and women are not allowed to enter temples or touch alters. The kitchen is out of bounds. Touching the drinking water pot is not allowed - believing that touch pollutes and will make food and water contaminated and spoiled. Mattresses, pillows and sheets are kept separate for use during these times. Many girls are made to sleep on the floor even during the cold winter months.

These same attitudes also hugely reflect in the management of menstruation. Menstruation is often very casually managed, dirty unwashed pieces of cloth are used

with this assumption that menstruation is dirty and anything will do to wipe off the flow. Very little attention is paid to hygiene. The reusable menstrual cloth is hurriedly washed out, hung out to dry in dark spots away from the sight of males as some believe that men will turn blind when they see a menstrual cloth.

There is a cultural silence around menstruation. Many mothers have no conversation with their daughters, leaving girls completely in shock when they get their period the first time. Friends and other relatives take over and then assist the young girl - coaching her on how to wear her menstrual cloth. Conversations about menstruation with men are non-existent. This results in “no voice” for menstruation and reflects in physical spaces such as bathroom design, simple facilities for women both at office and home during this time of the month, poorly designed public spaces for women such as a bus stand or a railway station and host of other factors. In a recent study conducted by one of the designers it was found that out of 197 girls only 26 girls (that is 13%) are able to talk to their fathers, brothers or other males.

1.2 Implication of the attitudes on menstruation

Attitudes within society such as the silence discussed earlier - govern information available to the average adolescent. Whether sighted or impaired, poor or rich, society's perspectives toward menstruation remain common across the board. For both sighted and visually impaired adolescents, information reaches them from a variety of sources; school text books, television, magazines, peer group sharing and whispered information that families and friends communicate. For those with no vision, all these sources come with a big disadvantage. They are not able to completely visualize what they hear. There is nothing tangible for blind girls. There is no tactile information, resulting in large degrees of misconceptions.

Experience will certainly teach all girls, even blind girls, but at what cost? Many young girls get their periods much before any information is made available. Information arriving late is of no value. Girls have been known to get pregnant due to ignorance.

Blind girls have been taken advantage of. If attitudes toward menstruation change then there will be shift in the way people think and communicate.

2. Information currently available for blind adolescents

What is it that an average young blind person can access by way of reproductive health information? If the adolescent is out of school – very little, just everyday snippets of information gathered through whispered conversations. For those going to school, there is text-book information, coupled with complete absence of tactile information. We examined availability of formal information on Reproductive Health and other tactile science information at three locations *:

- Saksham Daksh School - Nodia, Uttar Pradesh - India
- Blind Peoples' Association – Ahmedabad, Gujarat – India
- Pragya Chakshu - School for the Blind – Udaipur, Rajasthan - India (This school is only for boys)

* Uttar Pradesh , Rajasthan and Gujarat are states in India.

We found that the only sources of formal information that can be accessed are school text- books and random conversations with the school teacher. Conversations, if they occur at all, may not be clear as even a well intentioned facilitator or teacher has no teaching aid. Additionally they may not be trained to communicate about sexuality issues. The two designers/writers examined material available to those in the tenth grade. The age group of students in grade ten in India can range from 14 years to 17 years.

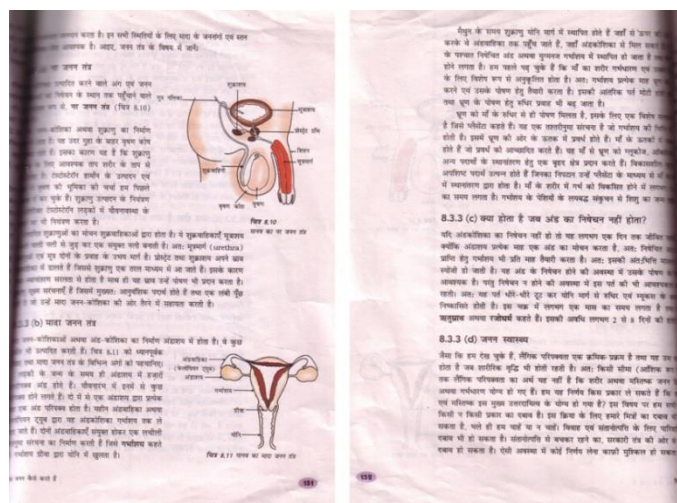
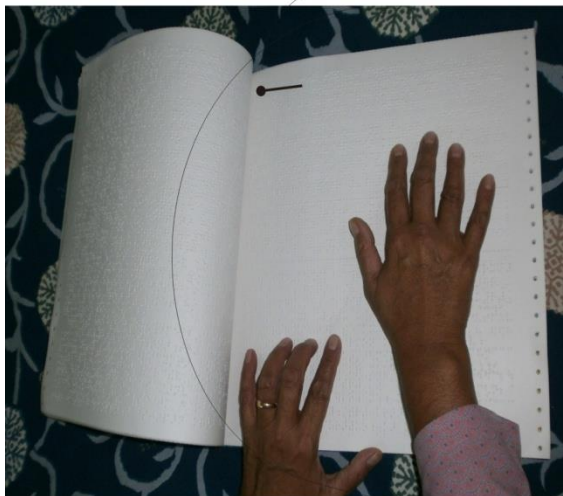
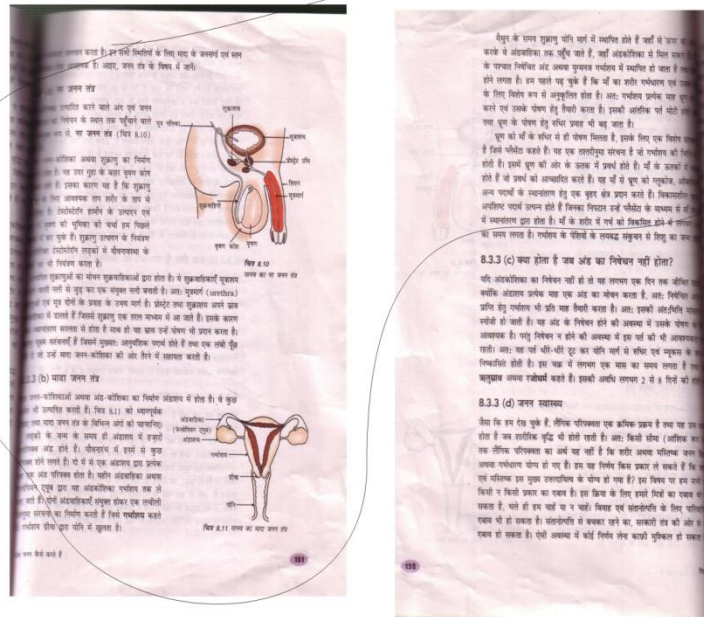


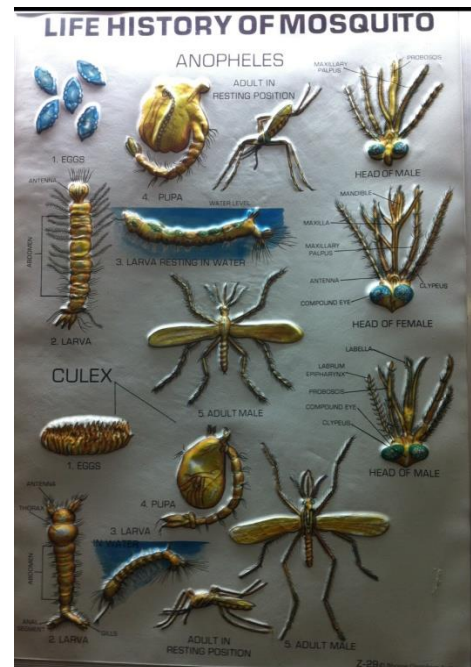
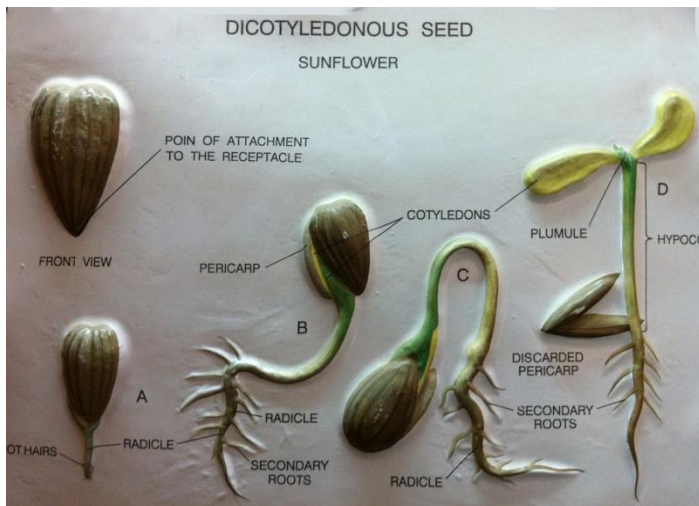
Figure above: Rajasthan State Science Text Book for grade ten - Page 151 and 152 – page dimension 8 “X 10.75”
Two pages cover information about reproductive organs - in a scientific somewhat “cut and dry” manner
in complex *Hindi* language.



A Braille version is used for students. This example shows the same two pages of the text book - word by word with no change. Each Braille page is 12 “X 12”. However diagrams are nonexistent from the brail science text- book.



In the blind school at Uttar Pradesh, the designers found an innovative model made by a teacher for students to visualize “lungs”.



The same school had tactile plastic charts for seeds and insects.

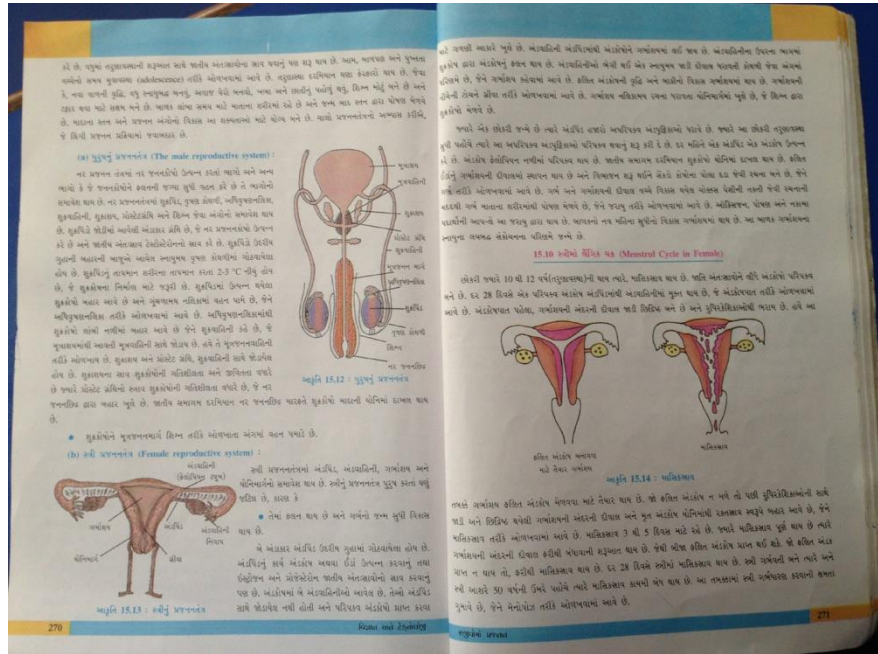
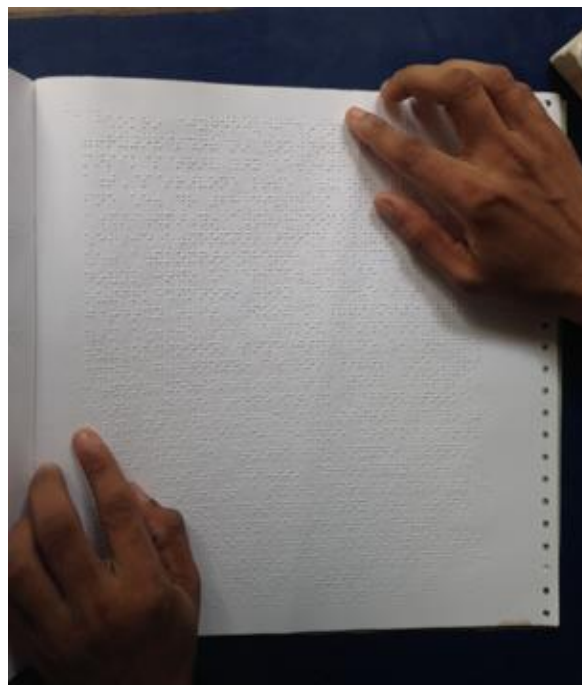


Figure above: Gujarat State Science Text Book for grade ten - Page 270 and 271 - two pages cover information about reproductive organs – in Gujarati language



Corresponding Braille in Gujarati language, on 12" X 12 ' Braille sheets.

Diagrams communicate clearly and supplement text information. What is ironical is diagrams do not exist at all. In the absence of well designed tactile information, much of the information a blind student will receive is teacher dependent. Gender issues too play a part. If a male teacher is the science teacher in the school, the reproductive health chapter will often be skipped as a male teacher addressing female students will be seen as culturally inappropriate.

3 Identifying the gap areas and information required to be covered

We thus confirmed our earlier suspicion that tactile tools for learning about reproductive health, for the visually impaired are very few. We realized that some efforts have been made, such as a necklace to explain the menstrual cycle (Kumar. J, 2012) , raised relief material (Bezerra. C P, 2010) and guidelines for teaching sexuality to the visually impaired (Supporting Blind and Partially Sighted People, 2012).

It was very clear that if we were to develop a product for communication on menstruation it needed to be designed with care and thought. The product had to be

- a. both tactile and also contain text information
- b. for the blind learner
- c. for both a sighted and blind facilitator (both sighted and visually impaired teachers manage the schools)
- d. a combination of theory and practical – information on menstruation, what to do, how to manage
- e. almost real - so there would never be any confusion of scale - a life sized model was needed
- f. portable, stackable – so it could be carried around from class to class if needed

The senior designer in the team had a lot of experience in communicating about menstruation and sexuality, however the student designer revisited issues, began afresh and took decisions on what to include or exclude. She started a prioritizing

exercise that would help her to decide this. For this she first made an information flow chart.



Figure developed by Student Designer to understand levels of information required for communication

In the overall frame work of reproductive health information that adolescents need, it is recommended that sessions on issues of child abuse and sexual abuse be covered. However for the purpose of the graduating project, this was consciously left out for two reasons

- the area of sexual abuse is very complex and needs special teachers to conduct and manage such sessions.
- the focus of the graduation project was on menstruation.

The information framework exercise was followed up by making a simple comparison table after speaking to both blind and sighted girls. The student designer also took the help of teachers as she built up her list of what to include.

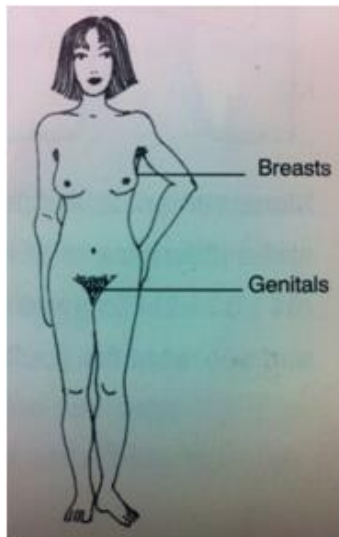
Situation	Sighted girls and women	Visually Impaired Girls and Women
Awareness about menstrual cycle	Are aware	Are aware – but with a certain amount of vagueness due to inability to fully visualize
Mobility during periods	Are able to go out of their homes	Are able to go out but many find it easier to stay back at home during periods.
Aches, pains, and other signals – associated with Pre Menstrual Symptoms	Have similar symptoms	Have similar symptoms
If using a disposable menstrual product	Practice similar disposal techniques	Practice similar disposal techniques
If using reusable cloth	Able to wash out well	Unable to gauge when cloth has been completely washed clean
First signs of menstruation - stain on underwear or outer clothing	Are able to take instant action	Are unable to take instant action especially when there are no premenstrual signals
General management throughout the days of the period	Are able to see when to change	Are able to only feel when to change, which is not always accurate
Disposal of used pads	Easily dispose pads, burn, bury or throw in dustbin or rubbish heap	Have difficulty in locating dustbins or rubbish heaps to dispose pads - especially when they are not in familiar places like home or school,
Colour of discharge	Can easily see and judge colour and thickness – which are indicators and point to health status of the individual.	Cannot see the colour of the flow
For the facilitator to communicate information on the menstrual cycle	Can be taught through text and diagrams	No tactile diagrams available to facilitate teaching or learning
For demonstrating how to use menstrual products	Easy to show through diagrams	Difficult to “show” – a physical demonstration is required
Addressing general anxieties related on menstruation	All adolescents have similar anxieties such as irregular periods, pain and others	All adolescents have similar anxieties such as irregular periods, pain and others

After this exercise, the flow of the information was divided into 5 categories.

- i Our Bodies
- ii Growing Up
- iii Reproductive Organs
- iv Menstruation
- v How to Manage Menstruation

4 The design solution

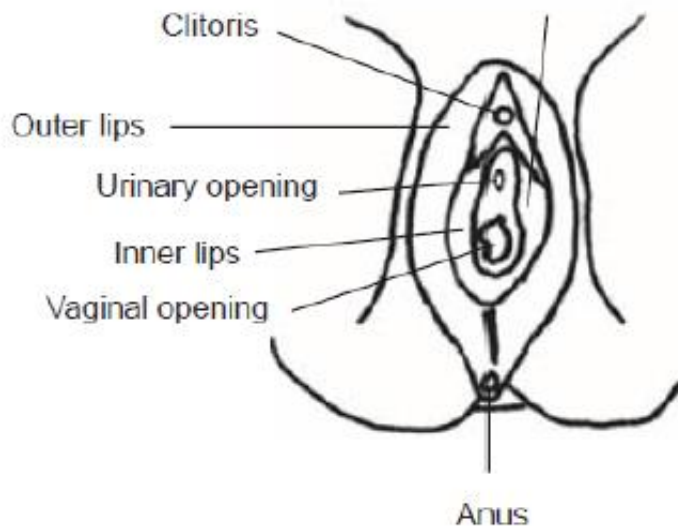
With the required content in place, exploration was the next step – how to translate from text to tactile. This involved developing tactile information shapes from rough sketches. The first basic body diagram was translated as shown in order to make it tactile.



The relief work has been done with a mix of clay and paper mache on plywood sheets. The process of developing from a diagram of the female body - care was taken to exaggerate the relief work to make it more tactile.



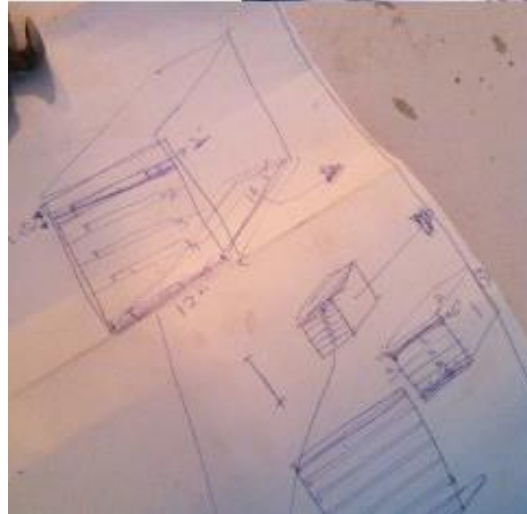
Uterus diagram



Genital area

The relief work was given a coat of brown paint and varnish to make it attractive and give it a finished look. Skin colours were deliberately not used as the slates would otherwise get dirty with each use. Paper labels were pasted on the tactile diagrams,

Braille labels were pasted on the paper labels. Storage and portability issues were simultaneously thought about as the tactile slates were being developed. The slates automatically lent itself into “chest of drawers” format. The format seemed very practical and we realized that accessing slates would be made easy and more over the slates would be safely kept.



Figures above show process of making the information box

At this point a title for the prototype was selected – *Kahani Her Maine Ki* – in *Hindi* language – The Same Story Every Month.

5 Detailed Description of the prototype - *Kahani Her Maine Ki*

5.1 Box



The kit is contained in a hold all or bag made of laminated jute. Carry straps are made of cotton.



1 - Cloth drawstring bag containing model of the truncated female body

2 - Ply wood box containing information slates

All dimensions are in inches.

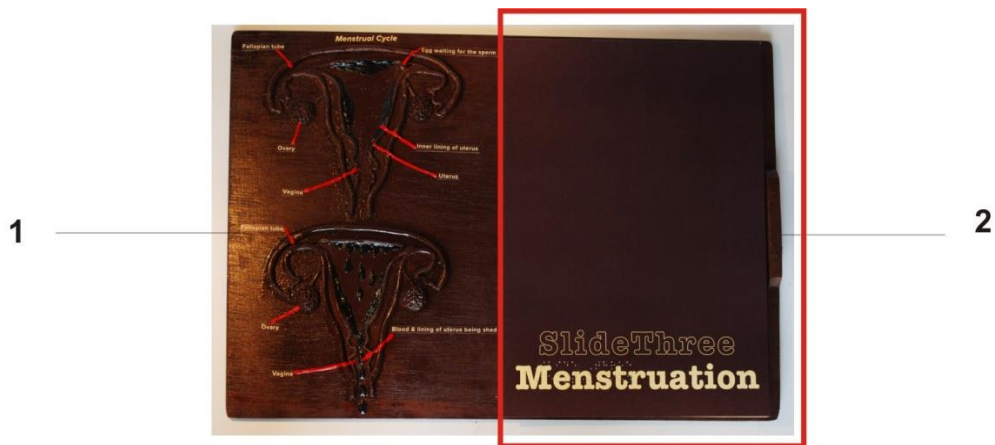


14"



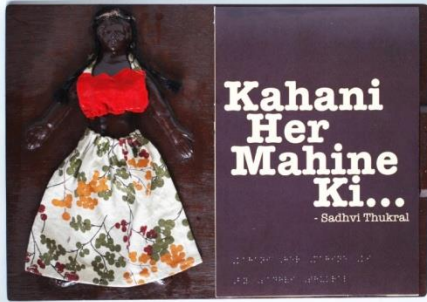


Each slate can be pulled out when required and slid back in again - similar to a chest of drawers. Each slate has a knob for pulling out/pushing in. The numbers 1 – 5 are marked on each of the knobs in both text and Braille - so that they can be put back in the same sequence. Slates can be taken out all together or one at a time depending on the preference of the learner and facilitator.

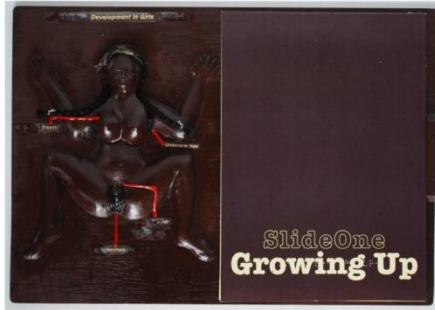


Each slate has a tactile figure on the left (1) and an information booklet corresponding to the figure on the right (2).

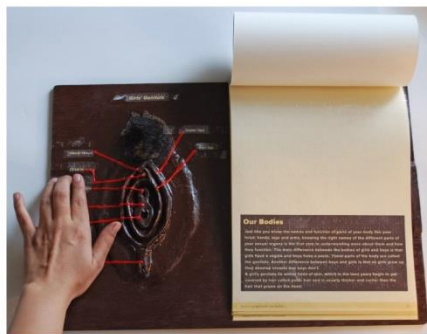
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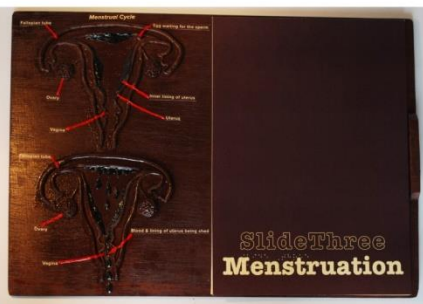
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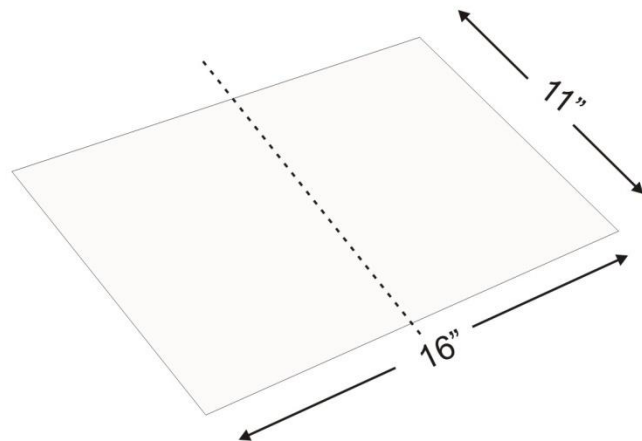
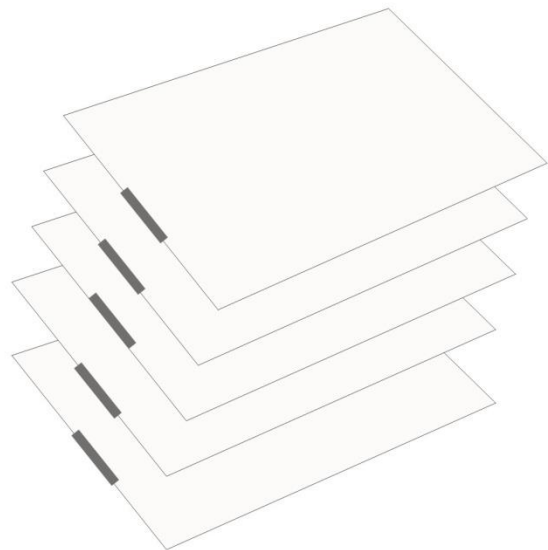
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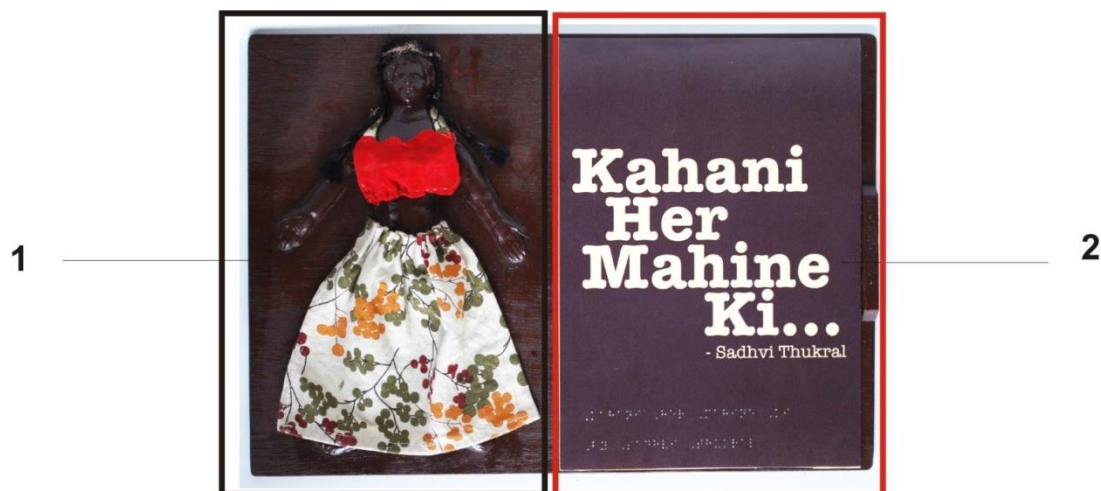
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E



Cover Slate – Kahani Her Mahine Ki



1 Tactile Figure of a girl clothed

2 Information booklet on this slate



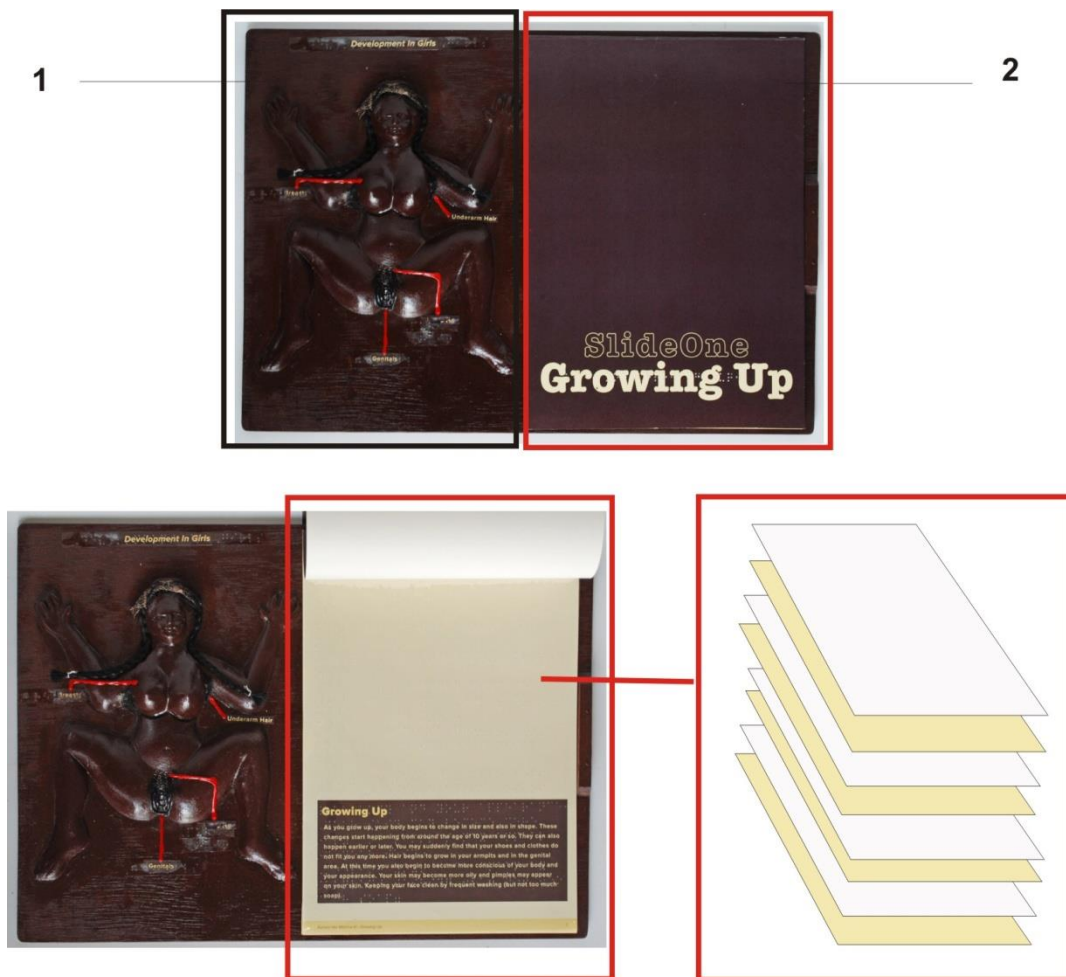
Sheet 1 - combines both Braille and Text - contains the title *Kahani Her Mahine Ki* – Sadhvi Thukral

Sheet 2 - Braille Sheet containing preface and table of contents

Sheet 3 - Text sheet containing preface and table of contents

Braille Sheets in the information booklet are made of thick plastic. Plastic was selected as wear and tear is expected as the sheets will be “felt” on many occasions. The Braille sheet is transparent and is placed over its corresponding paper text sheet. As the student reads the Braille, the sighted facilitator can follow the text that is visible through the sheet.

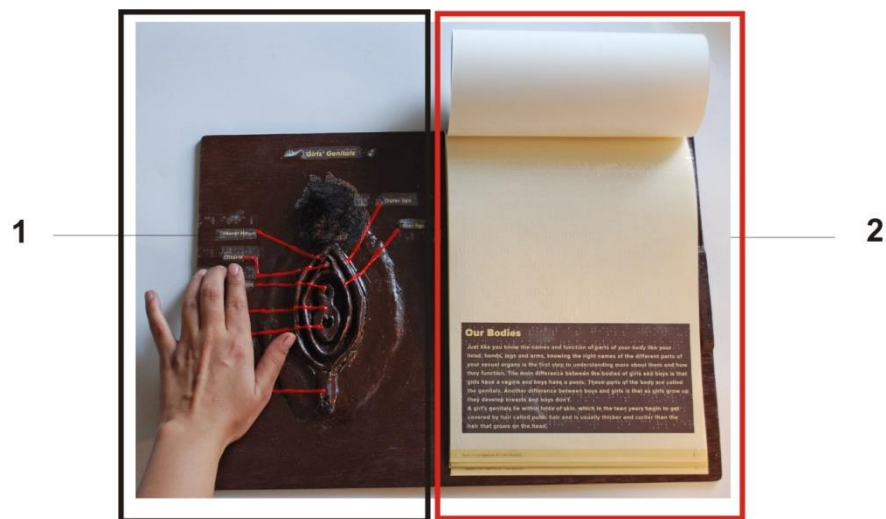
Slate One – Growing Up



- 1 Tactile Figure of a girl unclothed
- 2 Booklet with four levels of information – total number of sheets 8. Each level of information is on two sheets, the Braille Sheet and Text Sheet .

Level	Information
1	Growing up - describes changes in the body as you grow
2	What to eat as hormonal changes begin to occur in the body
3	Details about breast development
4	More details about the breast

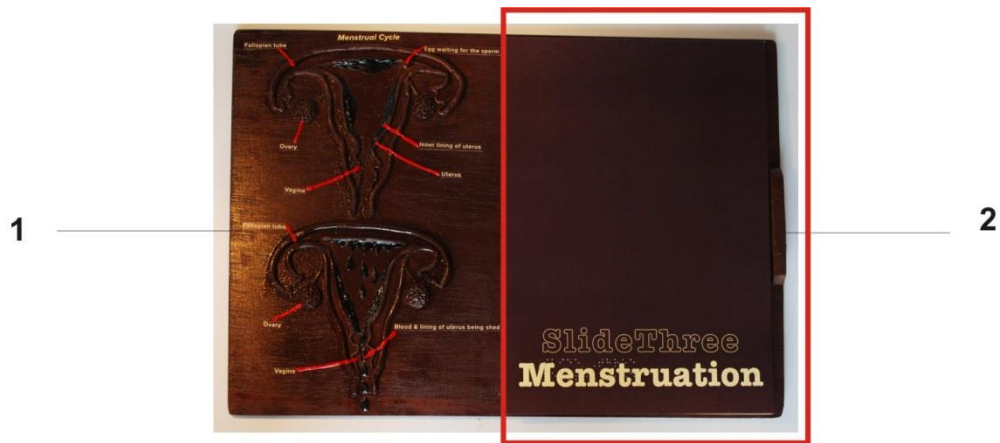
Slate Two – Our Bodies



- 1 Tactile Figure of genital; area – vagina with labels. Each label has two layers, the Braille layer and the text layer
- 2 The booklet with five levels of information – total number of sheets 10. Each level of information is on two sheets, the Braille Sheet and Text Sheet

Level	Information
1	Learning names of the different parts of your sexual organs
2	More details about reproductive organs
3	Details about body expulsions – part 1
4	Details about body expulsions – part 2
5	Details about ovaries

Slate Three – Menstruation



- 1 Tactile Figure of uterus with labels. Each label has two layers, the Braille layer and the text layer
- 2 The booklet with seven individual levels of information – total number of sheets 14. Each level of information is on two sheets, the Braille Sheet and Text Sheet .

Level	Information
1	About Menstruation
2	About fertilization
3	Mood swings and other details
4	Causes of irregular periods
5	Managing menstrual pain
6	About food and medicines
7	About Menopause

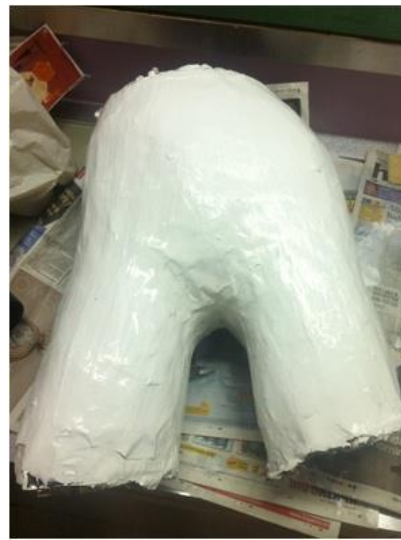
Slate Four – Products and Hygiene



- 1 Sanitary Napkin, Tampon and cloth pasted on slate. Products are labeled. Each label has two layers, the Braille layer and the text layer
- 2 The booklet with seven individual pieces of information – total number of sheets 18. Each level of information is on two sheets, the Braille Sheet and Text Sheet with written text.

Level	Information
1	Products – What to use
2	Details about products
3	More on products
4	How to wash and dry a cloth napkin
5	About General & Menstrual Hygiene
6	More on Hygiene
7	How to be always prepared for periods
8	Things To Remember
9	Other general information

5.2 Demonstration model

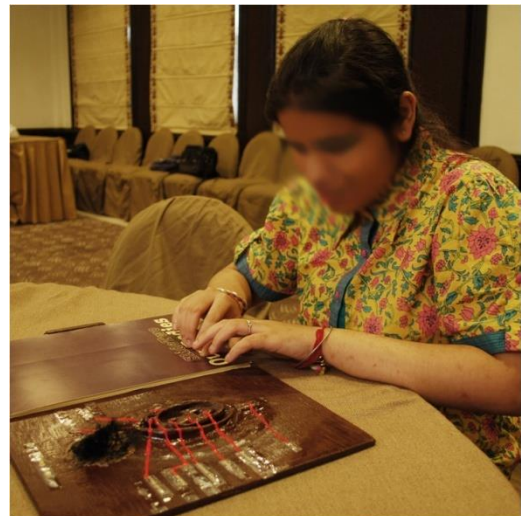


The model has been built up using mix of clay and newspapers. The vaginal area had to be developed – it had to be made flexible in order to demonstrate how to wear a tampon. For the purpose of this prototype a simple solution was thought out to make the area realistic. I. To simulate this, a silicon face mask was used. The “lips” on this face mask were cut out and then pasted on to the vaginal area on the model. Human hair was used for pubic hair.

6 Responses - Testing the prototype and others

Kahani Her Mahine Ki was tested with ten visually impaired female students in the age group of 8 to 20 years at a field test workshop conducted in April 2012. The student designer herself facilitated this. A video recording of this field test is available.

The session was conducted combining lectures and the *Kahani Her Mahine Ki*



The response to the kit was overwhelming Testimonials from students and teachers were gathered after the field test workshop.

From students -

“Its very good mam, no one speaks to us about menstruation.”

“I am so confident now, now I know why I bled every month.”

“I really like the part where I could make the model wear the pad and tampon!”

From teachers -

“This is a good product for us teachers to share information”

“Are you going to make more models like this one?”

Realizing the potential of this product, information about the prototype was put up on websites and blogs. From the Google group – Retina India Connect – we got the following response from the Chief Development Officer of *Maharogi Sewa Samiti*, Maharashtra – “We are very interested in your kit, we have 100 visually impaired girls residing with us. We would like to work with you and take this forward”. Giftabled India - a store for products for the visually impaired have written seeking collaboration.

In the absence of any tactile material for reproductive health - *Kahani Her Mahine Ki* has clearly shown the way. Responses to this effort are an indication that the designers are on the correct path to communication for the visually impaired.

Conclusion

For the purpose of the student’s graduation project the prototype has been a huge success. The student was awarded the “Most Innovative Design Award” for the Graduating Year - 2012.

However the two designers have put this prototype in perspective. Many levels of follow up need to be done to take this further to another level.

- The kit needs to be tested in at least 3 other schools for the visually impaired to test for content and sequencing of content – to see its relevance across groups.
- We are expecting that users will report gaps in the tactile part of the design. These gaps are currently unknown - as it has gone through only one level of field testing.
- Repeated use of this product will help us to gauge how long this will last or if any raw material requires changing.
- No problems with the plywood box or with the demonstration model are anticipated.
- Relief work on slates are of unbaked clay and paper – it is unknown if these can withstand long distance travel
- India has economic disparities - field testing is required across different economic groups to be able develop a common information basis for both the tactile and content parts

Meanwhile we see a huge potential for taking this product to larger numbers of visually impaired school and college audiences who up to now have had no access to simple but crucial information about their bodies and menstrual health. The scope for working further and refining this prototype is tremendous.

What we do now have is a somewhat crude but simple Tactile Menstrual Information Kit – and we have seen that it can work.

Other Information relevant to this project

Content for the Information Booklet on the Slates have been used from two books, Little Red Book and Little Blue Book – Published by TARSHI, India.

TARSHI – Talking about Reproductive and Sexual Health Issues - are a leading group in India, that has worked on sexuality issues for many years.

The project reported in this abstract was supervised by Sumita Sarkar, Head of Department of Communication Design, Pearl Academy, Delhi, India, Year 2012.

The Principal, teachers and students of Saksham Daksh School, Nodia, UP, India have been of immense support throughout this project. Year 2012

Blind People's Association, Ahmedabad, India were very helpful as they provided us with Braille text books. Year 2013

Vivekanda Society, Udaipur, Rajasthan, India, coordinates activities at the School for the Blind at Udaipur. We are grateful to the coordinator of the society Sangita Mundra for the help extended to us. Year 2013

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