

Teaching Children Structure of Indian Government

Semester III Project Report

Kalyani S Dhone

Guided By
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Industrial Design Centre,
Indian Institute of Technology, Bombay

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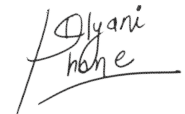
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Declaration

I declare that this written document represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources.

I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission.

I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

A handwritten signature in black ink, reading 'Kalyani Dhone' with a stylized flourish at the end.

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Approval Sheet

The project titled 'Teaching Children Structure of the Indian Government' by Kalyani Sanjay Dhone is approved for partial fulfilment of the requirement for the degree of 'Master of Design' in Interaction Design.

Guide 

Chairperson 

Internal Examiner 

External Examiner 

Date 27 November, 2014

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The library. The internet.

Family for their never-ending patience.

Kalyani Sanjay Dhone

Abstract

Children get introduced to subject of civics or social political life at the age of 12. The purpose behind having these subjects as a part of curriculum includes making them familiar with government structure as well as helping them with understanding their roles and responsibilities as good citizen.

Through the user studies, it was found that the reason behind making these subjects boring includes old traditional in which way children are taught at school. Moreover outside schools children are not motivated enough to learn this subject.

So this project is aimed to make the structure of Indian parliament more interesting for children from early age.

The design processed is followed to understand the problem and its different possible solutions. User studies, interviews were conducted to get close to the current existing methods of teaching and curriculum.

Based on the insights, final solution was designed which includes Tangible installation connected with the series of graphical animated videos where children can learn about five important components of the parliament - President, Prime Minister, Lok Sabha, Rajya Sabha, Council of Ministers.

The videos were designed in where emphasis is given on the key content of each component and its link with other component. The installation connected with the video helps the children to engage in videos and motivate to solve the puzzle given on the installation.

Evaluation was done on targeted user group with final prototype. Evaluation was done to understand the learning effectiveness and engagement of the user.

As part of future scope, there is a great need of change in teaching methods specially towards the subjects like civics which plays important part in everyone's life. Changing the traditional methods with engaging interactive systems would drive children to actually learn subjects with interest.

Index

vii	Abstract	51	Final Prototype
1	Introduction	61	Evaluation Criteria
4	Process Followed	62	Evaluation
4	Secondary Research	66	References
5	UK Government System		
5	New Zealand Government System		
13	Study of curriculum		
14	Key observations after studying curriculum		
19	Exploring current existing solutions		
27	Primary Research		
32	Revised Design Brief		
34	Ideation		
35	Possible Solutions		
38	Analysis of Content		
39	Concept		
44	Prototype		
47	Character Making		
48	Illustrations		
49	Prototyping		

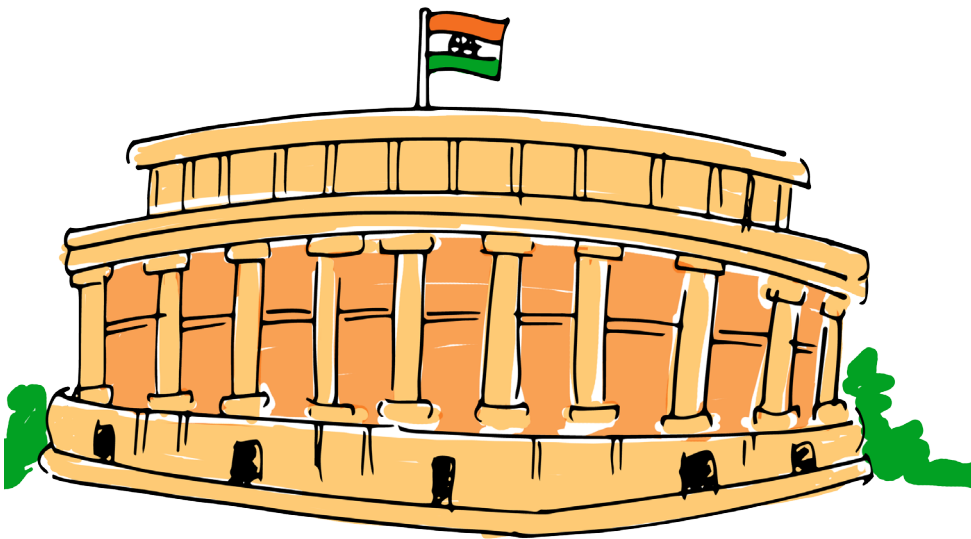


Introduction

School is a place where we learn new concepts, our ideas get evolved for the first time. It is a place where we learn about our responsibilities and regulations. Things which we learn in school are used in day to day life from maths, physics to chemistry. But till date, I never understood, why we are being taught about the parliament, government, prime ministers etc. I always used to wonder how all these ministers, parliament is connected and do they play any role in our lives?

As I looked into existing curriculum, I found that the curriculum and content from last 10 years hasn't changed and schools still follow the traditional way of teaching which includes reading, solving exercises and few activities. Also subjects like civics are given very less weightage than other subjects. Though this subject is very important because of its complexity children find it difficult to understand and tends to ignore it.

So, the idea behind this project was to provide children a resource in schools where they can learn about their government system in a more fun and interactive way.



Why Parliament ?

Government

Every country needs a group of members or official body to make decision for the country and its people. These decisions can be about tectonic legislative changes to mere change in the name of a place.

All these decisions which are very close to our life are made by government.

India is a democratic country where ultimate power of the government lies with the people. The people of the country elect the representative by voting a suitable person through elections.

In India, because of its huge territory and social diversity, the government system works at different levels – Union Government, State government, Urban local government and Rural local government.

Since, there is government at many levels; more people can participate in running the country.

The very important part of our government is Union government – which consists of the Parliament, the Executives, and the Judiciary.
[1][3]

Why Parliament is so important?

The parliament in our society has a immense power because the members of parliament are elected as representative of people. These members are elected directly or indirectly to parliament by people's votes. Apart from this the parliament plays very important role in passing and making new laws for country and at the same time it administrates the functioning of government and its ministry.

Children are taught about government from VI standadard. But children cannot connect themselves with the government system. They don't understand where they fit into the this system. They don't realize the importance of learning the parliament structure. There is no other resource they can refer to except textbooks or their parents. As a result, they hardly take any interest in news or activities going around them.

Considering all the issues the concepts are designed keeping target user group as children.

The outcome of the project is – Interactive installation
The installation is designed to teach children about the parliament and its component in school, where teachers can use it for teaching in class or children can play with it in free hours.

Design Process

Secondary research – Secondary research is done to understand the different government systems. Current curriculum material is studied and analyzed as part of secondary research.

Primary research – Primary research is done to know the current teaching methods adopted in school, children's knowledge about our government system and why they are ignorant about it. The data obtained from secondary and primary research is critically analyzed. Keeping the eye on target user group, problems are identified.

Ideation - Based on the current problems, ideas are generated with respect to target user group and need.

Final Concept and Evaluation – The final concepts are prototyped and tested on user to find how learning is happening with the help of final prototype

Process followed

1. Secondary Research
2. Primary Research
3. Revised Design Brief
4. Ideation
5. Analysis of content
6. Concept Generation
7. Prototype
8. Finalized Concept
9. Evaluation Criteria
10. Evaluation

Secondary Research

Understanding the other government system

India government system follows the Westminster Model and it is influenced by UK government system.

In Secondary research included understanding the different government systems similar to Indian government system like

- Westminster System
- UK, Australia, New Zealand political systems

Westminster System -

Westminster System is the model adopted after the UK's Political system. It is a democratic system which often comprises of

Head of States who holds numerous executive, reserve powers but still acts as a nominal head.

Head of Government who heads the governments known as the Prime Minister

Cabinet Ministers with different executive authorities.

Bicameral System - Having two houses or

Unicameral system - Having one house

This model is implemented in the UK, New Zealand and in India at Union government system. [4]

United Kingdom government system

The United Kingdom government system follows the democracy along with the constitutional monarchy where Monarch acts as a head of the state and Prime Minister is a head of government.

The UK parliament is a super legislative body in United Kingdom. It is a bicameral system where the legislative power is given to two houses of the parliament

- House of Commons
- House of Lords

The Judiciary branch is independent of the legislature and executive.

UK government system is multi-party system where two major parties, Conservative Party and the Labour Party rules the country.

The Westminster model has been adopted in United Kingdom and the other countries who were part of the British Empire.

In United Kingdom, the Prime Minister is appointed by the Monarch as a head of her the government. While appointing the Prime Minister should be the member of House of Commons and should have the support of that house. The Prime Minister forms the government by selecting the other ministers who acts as head of different political department.

In UK the Prime Minister is ultimately responsible for all policy and decisions. [5][6]

1 A bicameral legislature is one in which the legislators are divided into two separate assemblies, chambers or houses. [7]

New Zealand government system

The government of the New Zealand is based on the Westminster model where the Queen acts as a head of the states who is represented by the Governor-General².

The Queen and the Governor-General acts as a nominal head and can use their powers only on the advice of the government. Like UK government system, the Prime Minister acts as a head of government and Executive Council regulates the government. The Prime Minister is the leader of the party who commands majority in the House.

The New Zealand follows the unicameral³ parliamentary system where there is only one chamber (the House of Representatives) and no upper house. [6][9][8]

2 The Governor-General of New Zealand is the representative of the monarch of New Zealand. [6]

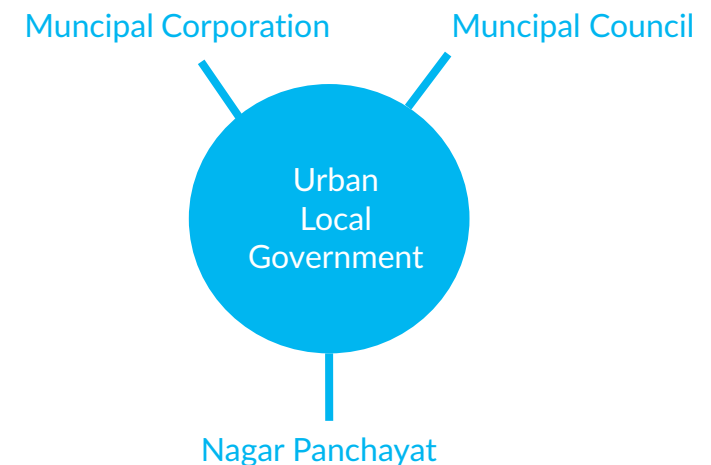
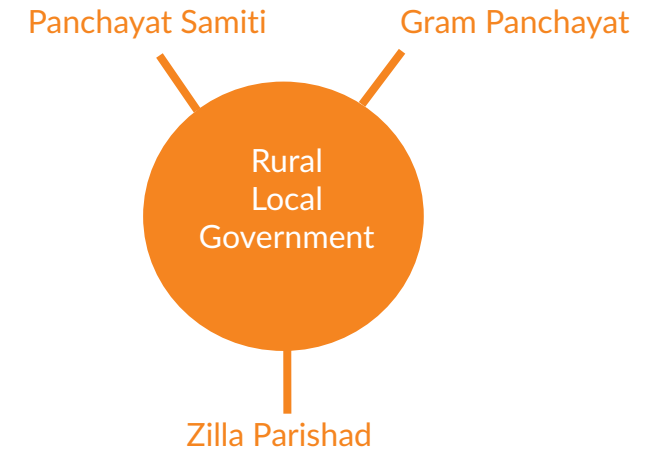
3 A unicameral parliament or unicameral legislature is a legislature which consists of one chamber or house. [9]

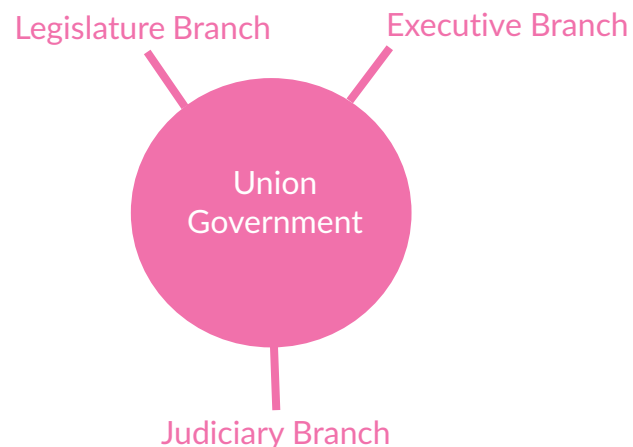
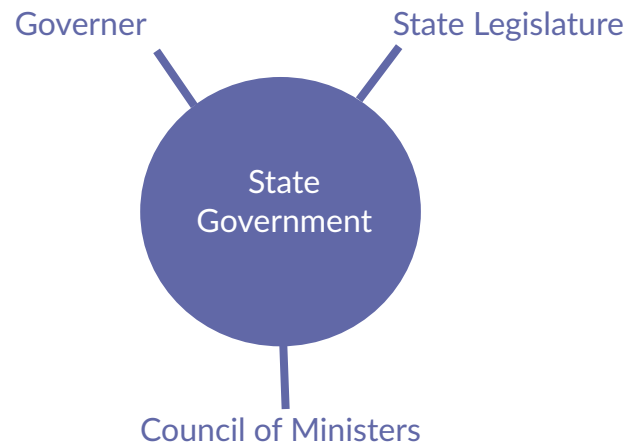
It is very difficult to handle huge population of India. So the system is further divided into subsystems based on the population of the areas. Every system is run by head, subhead and one administrator appointed by government.

Bottom of hierarchy starts from **Rural Local government**

This government system is known as '**Panchayati Raj**' which is further divided into three different systems. The affairs of the villages are managed by **Gram Panchyat**, those of taluka by the **Panchyat Samiti** and those of a district by the **Zilla Parishad**.

Above Rural local government, **Urban Local Government** works for urban areas. Like Rural local government, Urban local government is also divided into three systems **Nagar Panchayat**, **Municipal Council**, **Municipal Corporation** and **Cantonment Board**.
[10]





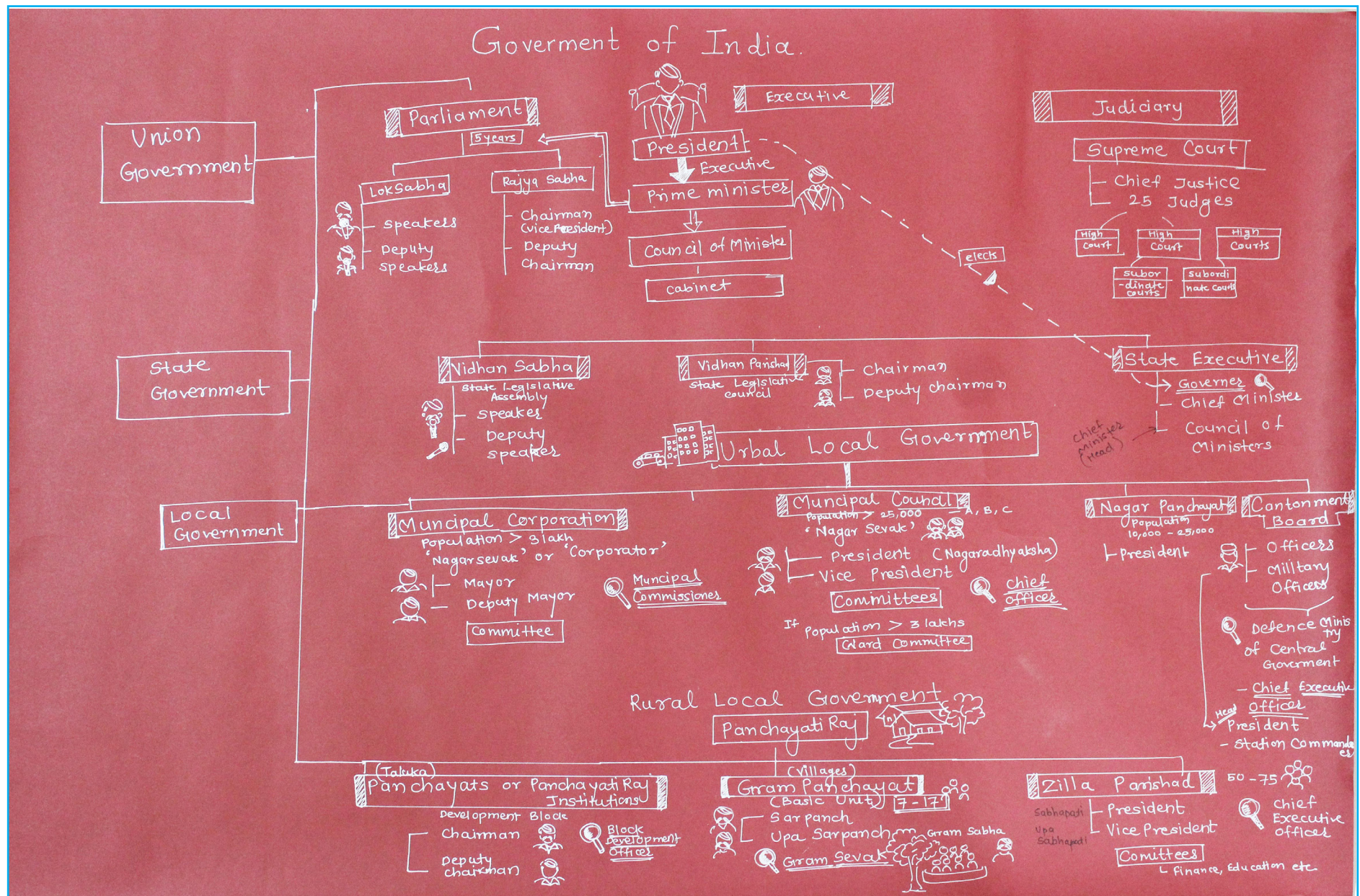
The third level of the system is known as **State government**. This system works at the state level. The working and structure of State government System is same as Indian Union government. It consists of **Governor, the State Legislature** and the **Council of Ministers**.

At the topmost level of the Indian hierarchical system there is Union government. It is the most important part of the Indian government system, which consists of the **Legislature Branch, the Executive Branch, the Judiciary Branch**.

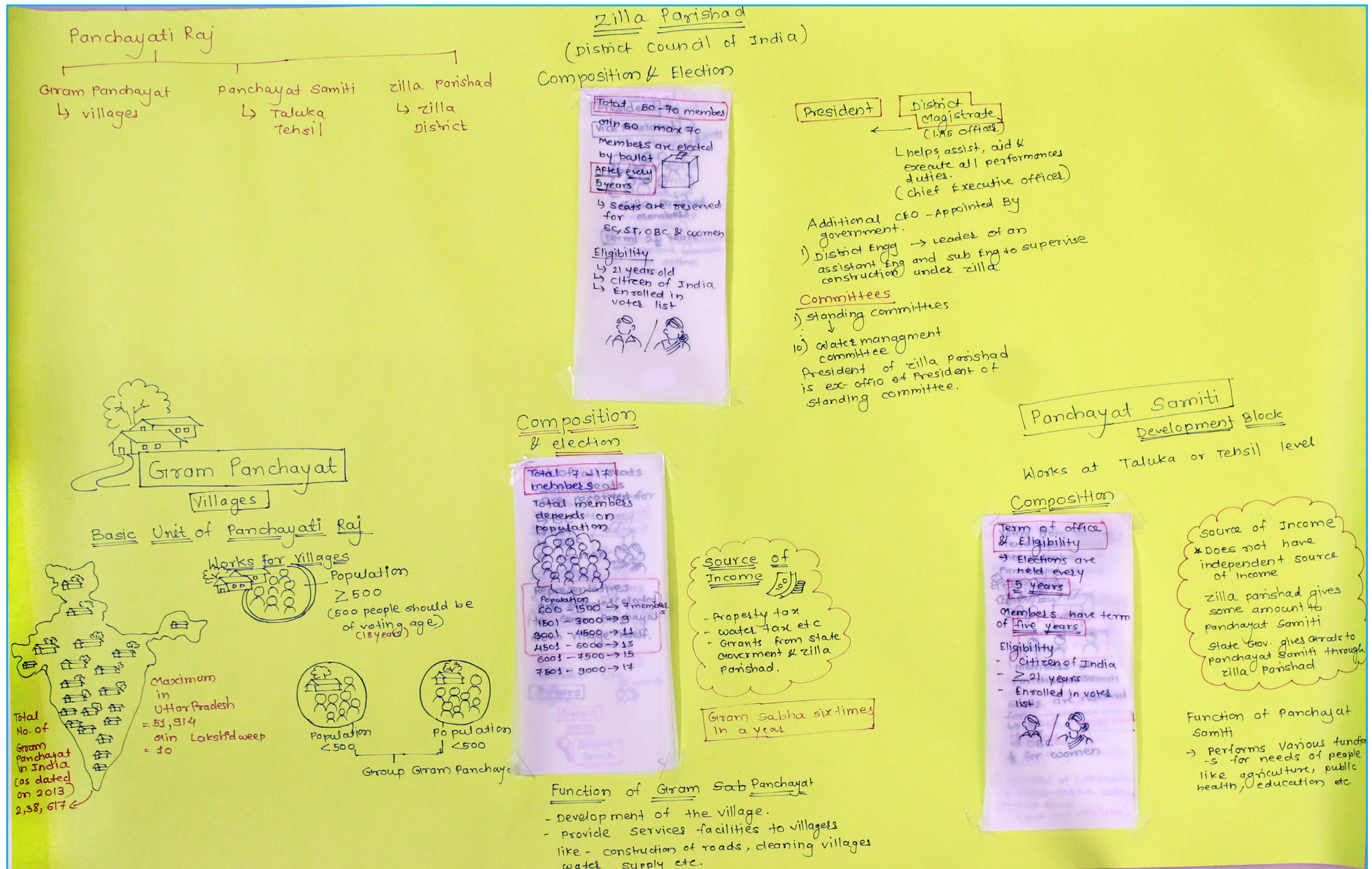
The Legislature Branch consists of - The Parliament and the President. The Parliament is further divided into two houses, the upper house Council of States (Rajya Sabha) and the lower house House of People (Lok Sabha)

Executive Branch is consists of - The President and the Prime Minister and his Council of Ministers.

The Judiciary Branch is composed of - The Supreme Court, the High Court and the other subordinate courts. [2][3]



Hierarchy of Indian Government



Hierarchy of Rural Local Government

Urban Local Government +
Municipal Corporation (metro)

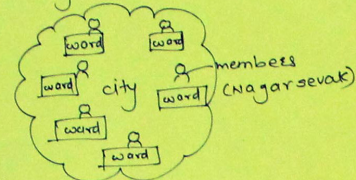
Municipal Council (smaller urban area)

Nagar Panchayat (small city, towns)

Cantonment Board for military

Municipal Corporation

population $\geq 3,00,000$
City is divided into wards



Function

- ① obligatory functions
- ② Discretionary functions

Source of Income

- taxes etc.
- Grant from State Gov.
- Loan

Composition

Total no. of wards
Municipal Corporation is $\propto$ population of city
members are called as 'Nagarsevak'.
Eligibility
→ 21 years at least
→ citizen of India
→ Enrolled in local voter list
Elections are held once every 5 years (annual budget)

Cantonment Board

↳ For civilians as well as military personnel living there

Composition

- Exo-Officers (Nominated)
- Some members are elected from area

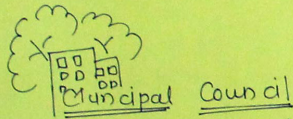
Exo Officers = Elected members
(no) (no)

President

- ↳ Station Commander
- ↳ Defence Ministry of Central Government

Function

- ↳ Provide street lighting & roads
- ↳ Supplying water / electricity etc.



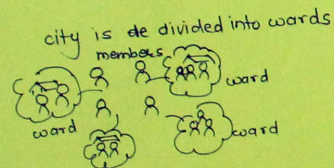
Municipal Council

Urban Local Body

Smaller urban area $\rightarrow \geq 25,000$ population

Classification of Municipal Council (in Maharashtra)

- Composition
- A - 3 lakh
 - B - 40,000 to 1 lakh
 - C - less than 40,000



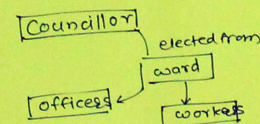
Committees

- ① Standing
- ② subject committees
↳ Public Works
Education
Sanitation
Medical, Public Health
water supply etc.

Number of members depends on the class of municipal council.
Elections are held every 5 years.
members are elected for 5 year term.
Eligibility
21 years
- citizen of India
- Enrolled in voters list
Some other officers seats reserved for SC, ST, OBC & women. Are reserved for women.

If population ≥ 3 lakhs
Ward Committees are provided

Ward committees



Function of Municipal Council

- ① obligatory functions
↳ lighting of streets, economic development etc.
- ② Discretionary functions
→ slum improvement
→ urban poverty alleviation etc.

Source of Income

- taxes, property tax, water tax etc. (Loan)

Nagar Panchayat

city - towns
Population less than 10,000 and less than 25,000

Composition
Chairman - Head
↳ Mayor
and other ward members
Elected for five years

membership consist of 10 max elected members and 3 Nominated members

seats are reserved for SC, ST, OBC & women

members are elected by direct elections

Functions

- ↳ essential services
→ street lighting etc.

Source of Income
→ Taxes, pilgrimage, markets

→ Grant from State Gov

State Government

1

State Executive

Governor, Chief Minister, Council of Ministers

- **Governor**
Head of state
- Appointed by President of India

- should be citizen of India
- 35 age

- function
- Advise Chief Minister
 - signs bills
 - informs President about state condition
 - can recommend to President to proclaim an emergency in state.

Chief Minister

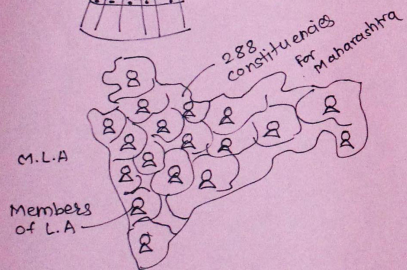
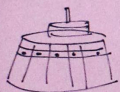
- Appointed by Governor
- runs entire state administration
- Leader of Legislative Assembly
- Directs the working of Council of Ministers
- Resignation of C.M. considered as resignation of entire Council of Ministers.

Term - 5 years
Age - 25 years

Council of Ministers

- Chief Minister (Head)
- Cabinet Ministers
- Ministers of States
- Deputy Ministers.

State Legislature (Vidhan Sabha) (Lower House) Bicameral system



Members

Not more than 500 and less than 600

Except Goa, Sikkim, Mizoram.

Eligibility Criteria
No. of constituencies depends on state for example India Maharashtra - 288

32 k
Himachal Pradesh - 68

Governor can appoint 1 member to represent Anglo Indian community
If community is not adequately represented

Function of Vidhan Sabha

- Making Laws
- Keep control of financial affairs of state government
- Approving Budget

Special powers of Vidhan Sabha

- Motion of no confidence against government
- Money bill can only be introduced in Vidhan Sabha

Vidhan Parishad (Upper House) (Legislative Council) As of 2011 → 7 state have L. Council

Permanent Body

Member of Legislative Council (MLC)

Vidhan Parishad || Rajya Sabha

Function of Vidhan Parishad

- supervise work of Council of Ministers
- General Bills can be first introduced in Vidhan Parishad
- They can discuss money bills.

MLC are members (MLC)
can not be 490
(except 32 k = 30)

Eligibility Criteria
→ citizen of India
→ 30 years old not 25
→ X member only
→ 5 members

Term - 6 years
3 members retire after every 2 years
teaching institute within state not lower than secondary school including college/university

Rajya Sabha (Permanent house)

Composition:

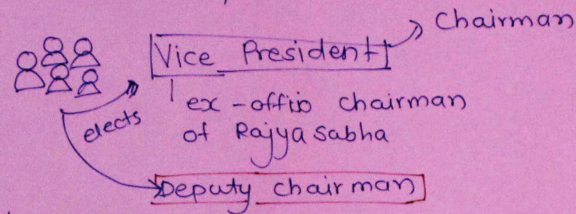
- 250 members
- 230 - State & Union Territory
- 12 - special knowledge or practical experience in literature, science, art and social service

members are elected by → Elected members of State Legislative Assembly.

Term - 6 years but $\frac{1}{3}$ members retire after every two years

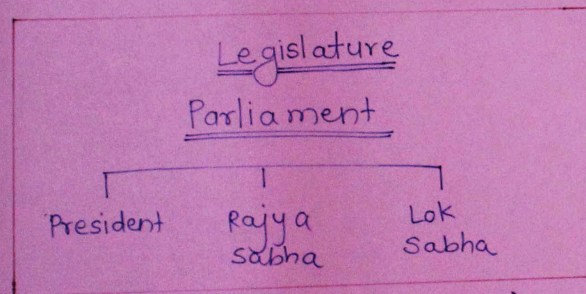
Eligibility

- citizen of India
- 30 years



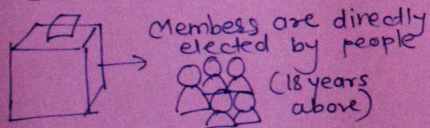
Function of Rajya Sabha

- Discuss bill
- can put question to ministers



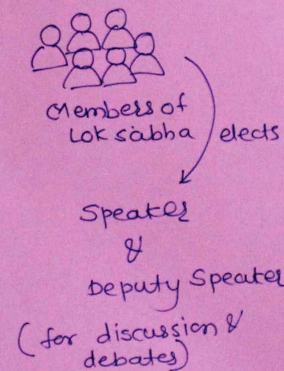
House of People (Lok Sabha) 2 Anglo-Indian

Composition: 550 members (max 552 members)
530 States, 20 Union Territory
some seats are reserved for SC, ST, OBC



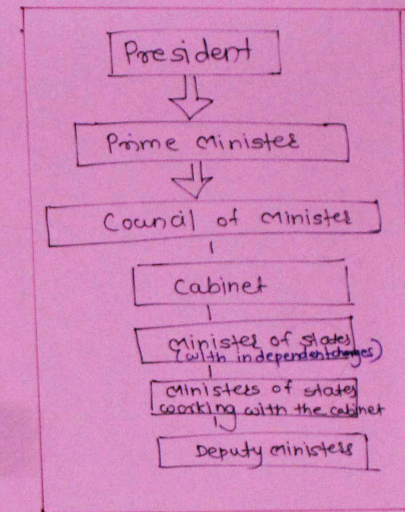
Term - 5 years

Eligibility of members - 25 years
- Citizen of India



Function of Lok Sabha

- 1) Legislative function - Law, Bills
- 2) Financial functions - Budget
- 3) Control over Council of ministers.



Study of curriculum

In secondary research, the current curriculum of VI, VII, VIII standards was studied from two education boards

1. Central Board
2. State Board

In central board the subject is taught as Social Political Life from 6th standard to 8th standard. While in state board the subject is taught as civics along with history and geography.



Current study material for schools

Key observations after studying the curriculum

CBSE Board:

Content

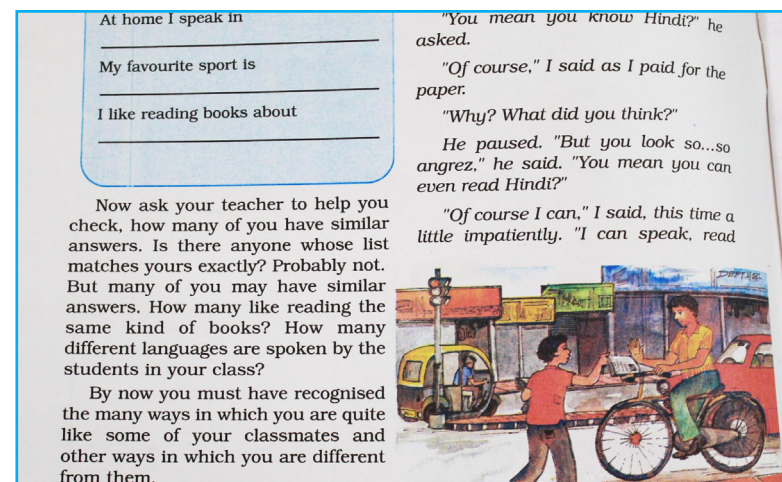
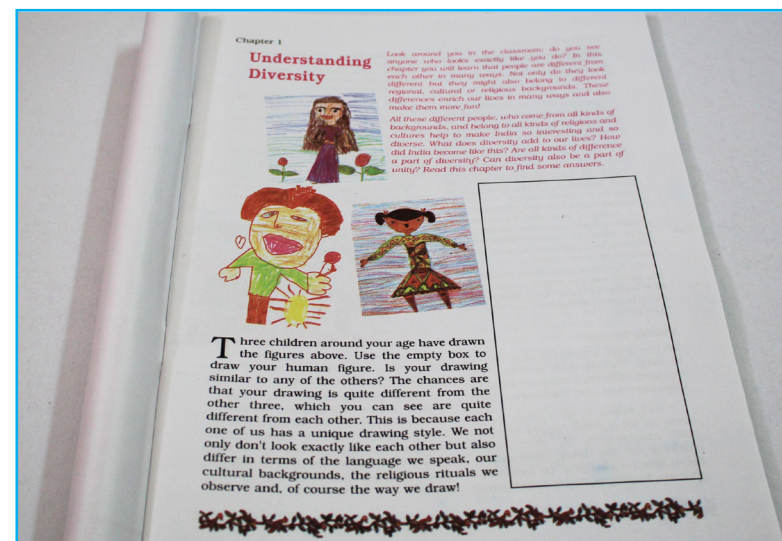
Each chapter begins with some interesting element to create interest amongst the student to find out what the chapter is about. Introductory boxes and images provides a brief look of the chapter. All the chapters contain the In-text boxes with questions, activities and exercises. The purpose of these boxes is to understand the students learning from previous chapters and content. In addition to that the activities are provided in chapters which are intended to encourage the students to understand the chapter from their own experience.

Use of Narratives

The books contain many narratives explaining the ideas through fiction or nonfiction stories. The narratives are explained in the context of the problem. The complex terms are explained by the use of simple words.

Use of Images

The books contain several illustrations and photographs explaining the content and narratives used in the book. The pictures help the student visualize the situation even if the students are not familiar with it. The simple illustration are used according to the age of the



NCERT Books

Use of other Sources

Activities given in textbooks are used to encourage students to read and explore outside the school and textbooks

Link between the content

Though the content in the books are explained with pictures and illustrations, there is no link between the previous chapter and the next chapter.

There is no image or chart explaining the overall structure of government.

Pros

Lots of activities are given for encouraging children to learn by their own experience.

Narratives makes the story interesting for children and engage them for more time.

Use images makes the narrative more simpler and easy to understand.

Role playing activities makes children understand their responsibilities.

Cons

There is no connection between previous chapter and next chapter, which makes student loose link between sequencing of content and they feel lost.

Though narratives makes the story interesting, it doesn't cover all important points related that chapter.

No hierarchical digram through which children can understand overall hierarchy of government in one go.

Maharashtra Board:

Content

The content of the book is well structured and organized. Each government system is explained by their composition, criteria, functioning and different authorities related to it. But there are no fun activities or exercises given which may encourage the students to learn the topic. Only few difficult terms are explain at the end of the book in Appendix.

Use of Narratives

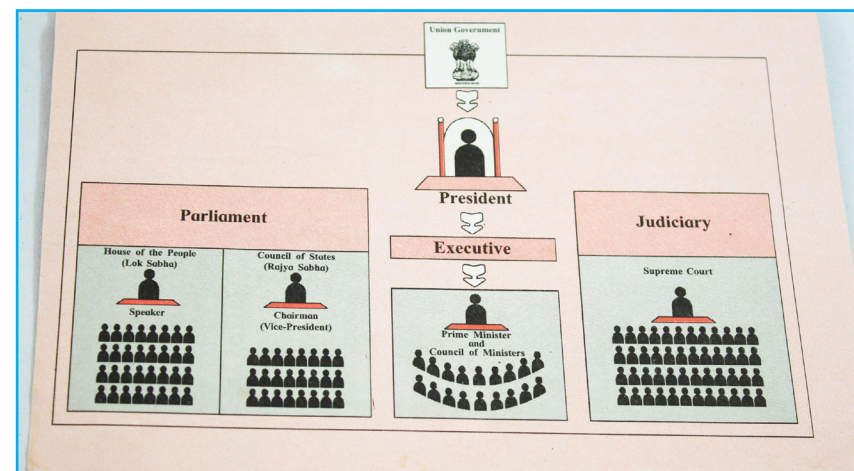
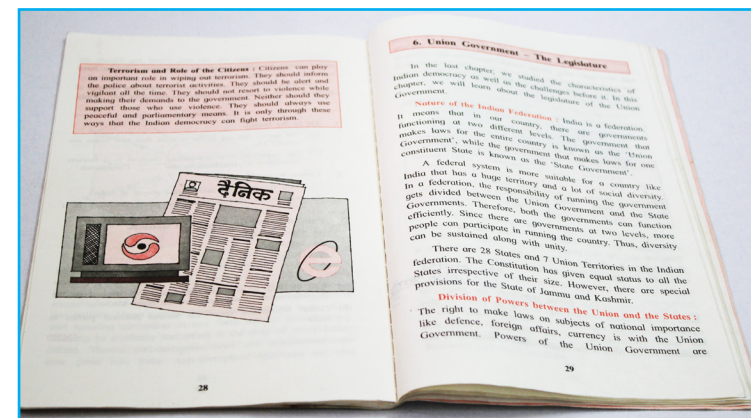
No narratives or stories are included in the books. The language used in the books is difficult to understand in first reading.

Use of images

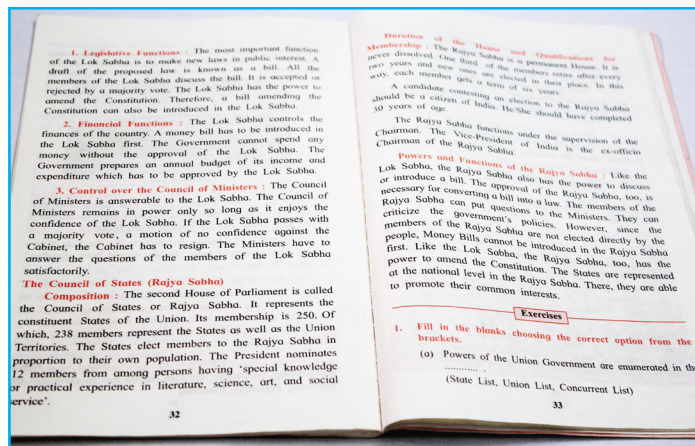
Each chapter contains only one or two images. No pictures or diagrams explaining the system are provided in the book. The content is very textual and non-graphical. Only one hierarchy diagram of the government is given at the end of the book.

Use of other sources

There are few activities given in the books which encourage students to gather information outside the books and school.



Hierarchy diagram at the end of the book



State Board Books

Link between the content

The chapters are linked together but there is no exercise or activity given which reminds the students what they learn previously.

Pros

Activities and exercises are given after each chapter which makes children revise the chapter again.

Enough content about each chapter is provided in the books.

Few terms and short forms of terms contained in the chapter are explained at the end of the book like Legislative, Westminster, MLA, MP.

There is a link between one chapter to another which makes children understand sequencing of government system.

Cons

Very few illustration and visuals are used in the books Too much text contained in the chapter makes the chapter boring for students. Too much text contained in the chapter makes the chapter boring for students.

No narratives are used in the chapters, which makes the chapter monotonous and boring.

One hierarchy digram about Indian government system is given at the end of the book, but it doesn't give the detailed description about each individual system.



Game - Chuno Chunao and Ulti Polity

Source: <http://www.idc.iitb.ac.in/projects/student/batch-07-09/milind.html>

Exploring current existing solutions

The current existing solutions were studied to find out the different problems with them and why students are not encouraged to use them. Some of the examples are

1. Games

One of the most interesting things through which children learn about many complex concepts is a game.

Games are played in India for many years by all age groups. As technology progressed, many of the tangible games are digitalized, which can be played online on tablet, computer etc. To teach government system, few tangible as well as digital games are available for example

Chuno Chunao - This game was designed by the Interaction design student Milind Kaduskar (Batch 2007-2009), from IDC, IIT Bombay for children of age group 10+. The game was based on the political system where it tries to familiarize children with the system.

Pros

Strategy was involved in game which makes the game engaging and challenging

Role play is given in game play makes the children understand about their responsibilities

The game makes children understand about how to elect different participants in the political elections.

Cons

Complex rules of the game are difficult to understand which makes the game play slow and difficult for first time user

Children tends to concentrate on the game play more than actual learning (knowledge) provided in the game

Less chance of repeat play

ICivics - The online game where you can play as well as teach about civics. You can donate your points to support the development of online interactive civics education. [11]



Game - Online game ICivics Source: <https://www.icivics.org/>

Pros

As the game is online anyone can access it easily.

Role play is given in game play makes the children understand about their responsibilities

The game is divided into different categories like Crisis of Nation, Rights etc which gives detailed information about that section while game is played

Children can learn, play through their portal

Cons

It is confined to U.S government political system.

Complex to understand which makes game play long.

Learning tutorials are lengthy and hard to understand

No hints provided once stuck in game

2. Info graphics

Info graphics is the medium where you can show large amount of data with the help of graphics. With the help of the info graphics complex information can be represented quickly and clearly.

Pros

Visuals makes the content easy to understand.

Layers of information can be visualised in one go with pie charts, icons etc.

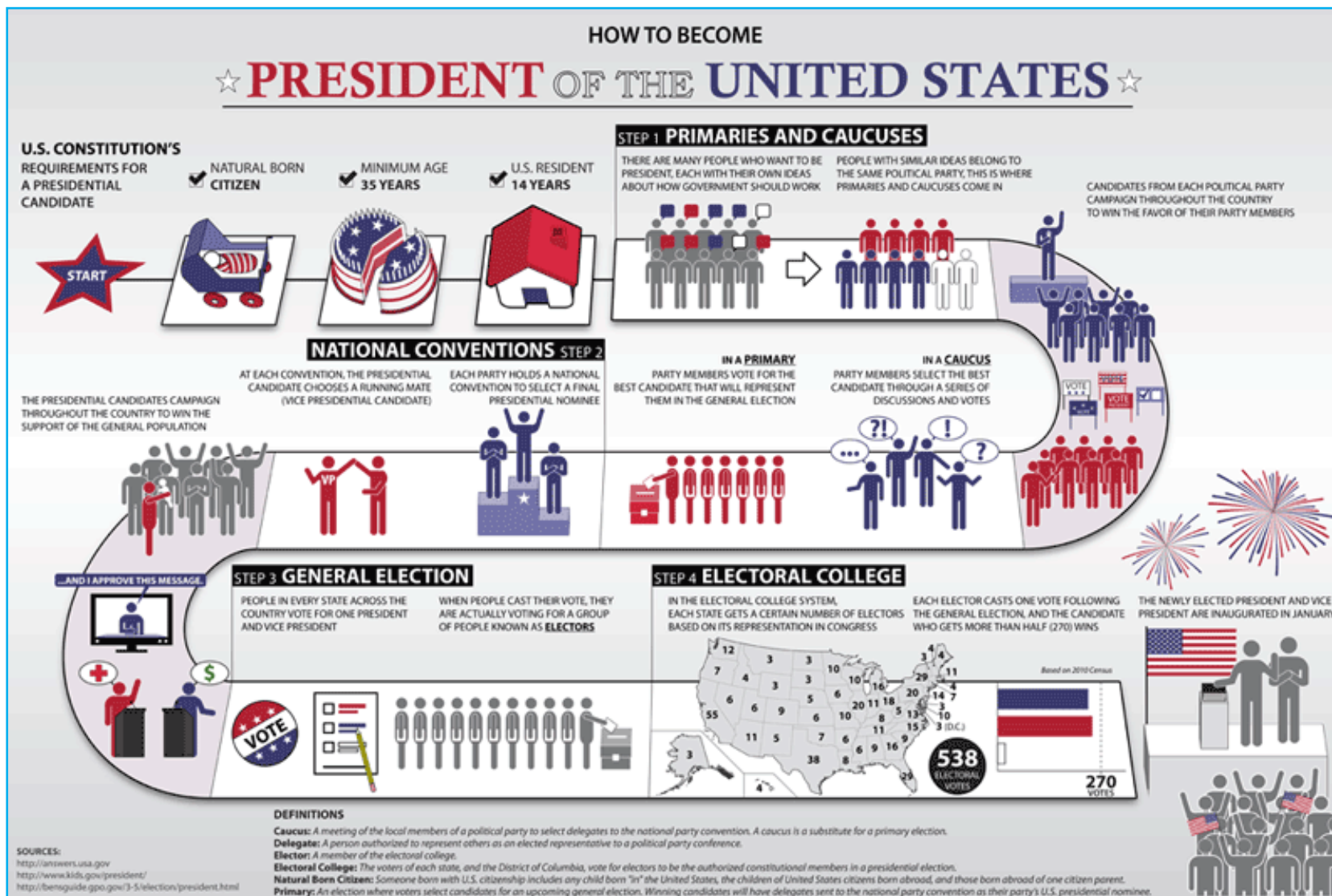
Colors coding makes the infographics easy to read and simple to memorise

Infographics can be combined with stories, animation, videos etc.

Cons

Though info graphics can explain complex system quickly, it is difficult to represent big system like government with the help of one info graphics.

In addition to this there is no interaction or input from users side which will engage in reading for long time.



Info graphics : How to become President of the United States

Source: <http://kids.usa.gov/Assets/kids.gov/images/kids/president-poster.png>

3. Online websites

Now a days the websites are the big resource of information. Google is the famous search engine where people can find all information just with one click. There are many websites available on internet which provides information about Indian government, famous politicians etc.

For example:

1. <http://www.elections.in/>
2. <http://www.mapsofindia.com/>
3. <http://www.narendramodi.in/>

Pros

Can be accessed easily

Content can be updated easily

Crowd sourcing, social network can be linked together in one portal

Cons

Most of these websites are cluttered and large amount of information is bombarded on user as soon as they land on the page.

Information is hidden under the tabs, hence user has to go through various tabs to get it. There is no way they can get the information they want in one go.



भारत निर्वाचन आयोग Election Commission of India

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Bye - Elections 2015 [Click here for Results](#) new

Current Issues

- Amendment of Election Symbols (Reservation and Allotment) Order, 1968-revised Para 10B relating to common symbol, inter-alia providing second opportunity for allotment of common symbol to registered unrecognized political parties. (English / Hindi new)
- Bye-Elections to the state Legislative Assemblies, 2015 – Commission's order regarding identification of electors. new
- ECI invites application for the post of Assistant on deputation basis.(English / Hindi)
- Bye-Elections to the State Legislative Assemblies, 2015 – Use of Electronic Voting Machine (English / Hindi)
- Bye-Elections to the State Legislative Assemblies, 2015 – Exit poll -regarding (English / Hindi)

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Press Releases



Dr. Nasim Zaidi
Chief Election Commissioner

Get Set Vote

Voter Education Channel

Search your name
in Voters List

Forms for registration in E-Roll

Elections.in website

Source: <http://www.electioncommissionofindia.com/>

MapsofIndia.com
India's No.1 Maps Site

Maps States of India Cities of India India Travel My India Utilities Our Channels Search: Google Custom Search Search

Home » Elections in India Select City, State or [twit this](#)

Track Your Constituency Type

Elections in India

Assembly Election Results General Election Results

India Assembly Result Map

India Parliamentary Result Map

Assembly Election Results

General Election Results

By-Election Assembly Results September 16, 2014

Party	Win
BJP+	13

Maps of India website

Source: <http://www.mapsofindia.com/>

Primary Research

User Studies

User studies were done to know the awareness of children towards current government system, what are the current teaching methods that teachers are using, what are the other media and resources available to children to get the information.

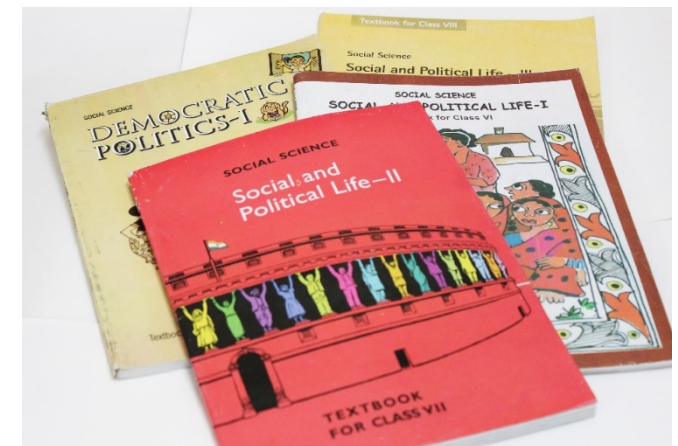
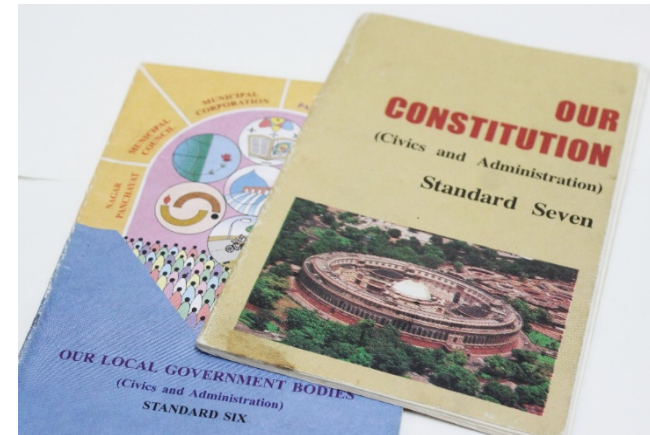
User Studies with Teachers

In this user study, 3 interviews were conducted with the teachers of 'Kendndriya Vidyala' and 'Campus School' at IIT Powai.

After the discussion with teachers, it is found that children are introduced to the Indian government system in standard VI. Basic knowledge about Rural local government and Urban local government is given to them which includes working of Panchayati Raj and its higher systems.

As the children are upgraded to higher standard they are exposed to State government system and Union government system.

This course is included in subjects, 'Social and Political Life' and 'Civics and administration' for Central board and State board respectively.



The content included in both the boards are majorly different than each other.

Only 20% weightage is given to civics in state board where three subjects - History, Geography, Civics are taught as together in State Board.

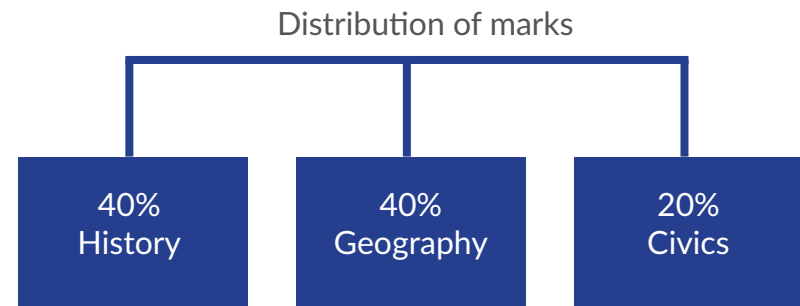
As only 20% weightage is given to civics, only one lecture is conducted per week to teach this subject.

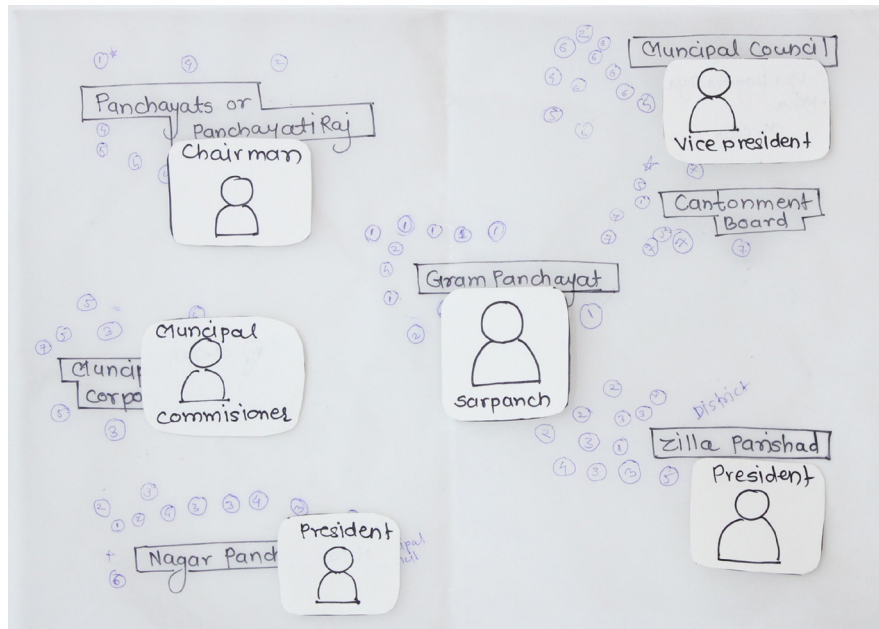
Teaching methods used by CBSE Board teachers

1. Flow chart
2. Role play exercise
3. Skit/ Drama
4. Activities like searching articles in newspapers

Teaching methods used by CBSE Board teachers

1. Read Chapter
2. Write important points on the board
3. Ask students to read
4. Solve exercise mentioned in the book





Activities given to children

User Studies with Students

In this user study 7 interviews were conducted with the students of VI, VII and VIII standard of 'Kendriya Vidyalaya' and 'Campus School' at IIT Powai.

The purpose of these interviews was to know how much they are acquainted with this subject, what is their understanding of past learning, how much is their liking towards this topic, how they are using different sources to get this information and whether they are participating outside school to know about it in detail.

Apart from the interviews two activities are conducted

1. To arrange given government systems in ascending order (from lower to higher level based on hierarchies)
2. To place any 3 cards of the respective heads from on their respective system from giving set of cards

Result:

7 out of 10 students failed to give the correct answer

Findings

Finds subject boring and uninteresting

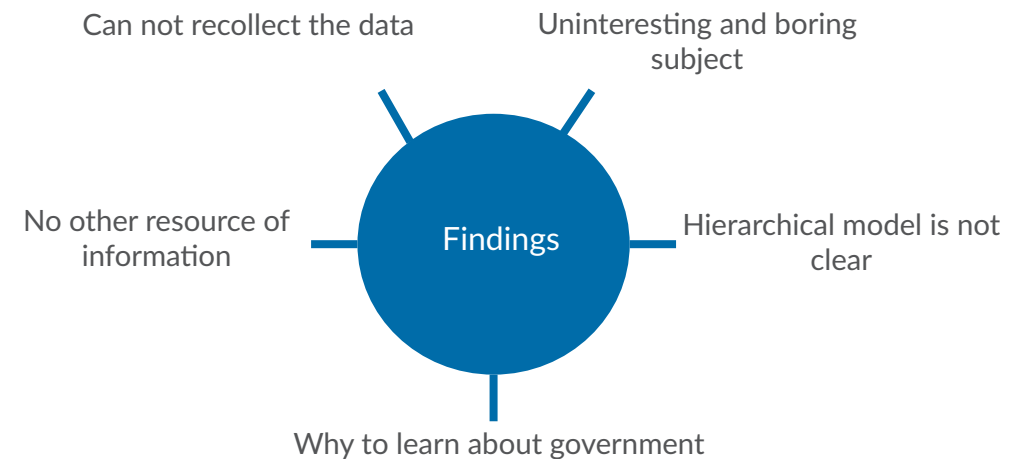
Too much of text makes the subject boaring and complicated to undersatnd. Though CBSE books contain plenty of images and stories, given they are not self explanatory. The terms used in books are difficult to understand and are not explained there itself.

Students can not recollect data after certain time

There is no connection or link between previous or next chapters. Many of the concepts remain uncertain and unexplained. As a student goes forward he/she tends to forget the old concepts and how one part of the system is connected to another.

Students fail to understand – Why is it necessary to learn about the government?

Though it is given in the books why government is important and how it works, the students can not relate themselves with the system. In addition to that they don't understand where they stand in this big, complex system and what is their role as a citizen.



Students read about the government only to pass the exams

As there is very less weightage for Civics in curriculum of state board student pays less attention on to it while studying. They read the chapters during the exams just to score marks.

No other resource of information apart from books

Outside school, students take hardly any interest in knowing the information about government and its working. Apart from that they hardly take any interest in reading new or watching newspaper because the terms used in the news are not familiar to them
For example - MLA (Members of Legislative Assembly)
- MP (Member of Parliament)

Hierarchical model of system is not clear

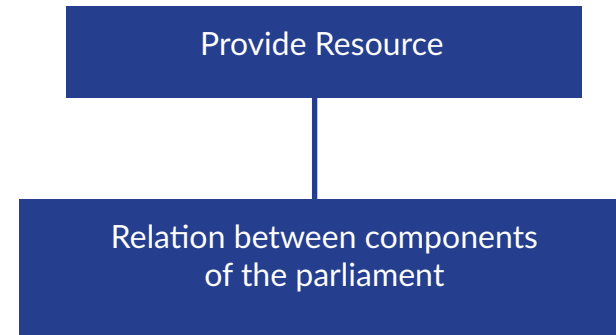
The Indian government system works on multiple levels from top to bottom. Different government systems at each level performs different job. Hence the students find it very difficult to build a hierarchical model of the overall system as there are no images, charts or flow diagrams are given in textbooks.

Apart from the textbooks there are no charts put up in the schools for reference. The students only remember the names of persons whose posters are put up on the wall of the classroom or the corridors.

Revised Design Brief

After the secondary and primary research it was found that apart from text books there are no sources of information available to them. As it is a complex system, it is very difficult to teach them all the levels at one time. Based on observation and findings design brief was restated as follows

1. Provide resource (suppliment to the text books) for children to teach the structure of the Indian parliament
2. To make children understand the relationship between different elements of the parliament





Why Parliament?

The parliament is a super legislative body of the Indian government which plays a very important role in making and passing new laws. The working of the government is administrated by the parliament. Parliament controls all the money that government has. Public money can be spent only when it is sactioned by the parliament. [3]

It is at the highest node in a hierarchical model of the government system.

As parliament plays very important role in everyone's life It is important to know how parliament works and what are the its different components.

Target Users - 8th standard students

Why 8th standard students?

The students are introduced to the parliament in 8th standard. Government systems below the parliament are taught to them in lower grades, so the base of these systems is quite clear to them. 8th standard students who are of age around 14-15 years need to be aware of the activities, schemes, government implementing which are part of their day to day life.

Ideation

Considering the target user group ideas were generated based on the findings

The ideas were generated considering following parameters

1. Fun, engaging

- The solution should contain the fun and engaging part so that the user should not get bored while learning the concepts

2. Clear communication

- There should be clear communication while explaining the concepts so that the user should not get confused between unfamiliar terms and concepts.

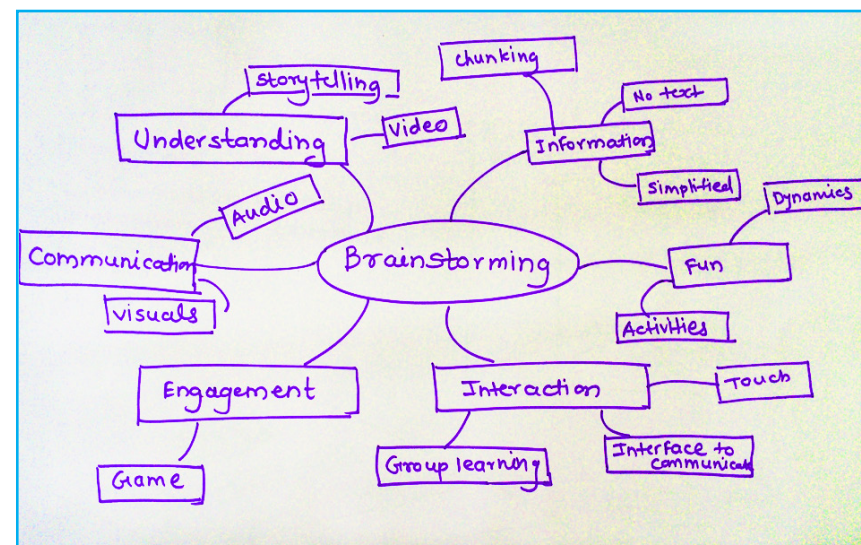
Interaction with user

- There should be some kind of interaction with the user so that user get involved in learning process

Tangible and Dynamic

Children always like something which they can touch or play with.

Children always get bored with static things, they like to see dynamic things where things come and go, moves, and accelerates.





Wall Installation

Source: http://www.tecnologiaassistiva.net/uploads/widget/image/208/463/20846302/education_5.jpg

Possible solutions

Info graphic Wall Installation

Ideas

Pop out Charts which show the flow of hierarchy and also related buildings or existing leaders. This will be visually attractive and exciting for the kids, miniature models will be installed on the wall.

Advantage

1. This can be installed in the class room.
2. They can refer the installation all the time even teachers can refer to it and give the students revision whenever they want to.
3. The physical feeling of interacting with miniatures are always exciting for children this way they won't get bored of the subject.
4. Interaction and Learning between students happen.
5. The overall structure can be seen at one glance and they can zoom in and zoom out whenever needed.
6. Seeing the installation everyday might make them understand or remember it more effectively. It is like teaching prayer every morning in schools.

Disadvantages

1. They can't take it home or learn it at home
2. Installing in class might be a difficulty because each and every class's interior differs.
3. Possibility of Ignorance, Everyday learning might not occur if the students don't find it interesting

Interactive Physical Book

Idea

Pop out structured book, with more visuals and may be the content flow could be like a story telling. Different ways of navigation in the book can be implemented. For example if they want to see only the leader's names there should be a way of filtering it out.

Advantages

1. Portable and Can carry back to home
2. Teachers and parents can get involved in it
3. It gives a feel to relate to existing government structure
4. Children likes folding and unfolding things which they can touch and feel
5. Information can be visualized in different layers

Disadvantages

1. Group learning may not be possible
2. No input from users side



Pop up book

Source: <http://www.alphamom.com/legacy/hotspots/Alice%20in%20Wonderland%203.jpg>



Table Game

Source: http://www.strollerinthecity.com/wp-content/uploads/2013/08/LwH_iPad_Map.jpg

Phone or Tablet App

Idea

Smartphone or tablet app where children can learn or get information about government system

Advantages

1. Information can be access easily
2. It can be updated according to current activities
3. Can carry anywhere
4. Group learning, engaging
5. Data can be share online

Disadvantages

1. Children won't own tablets or phone to use them anytime
2. Memorizing or reading from digital devices is always less efficient than hard copies
3. Children won't be able to bring tablets anywhere
4. Other apps and games might distract children

Analysis of content

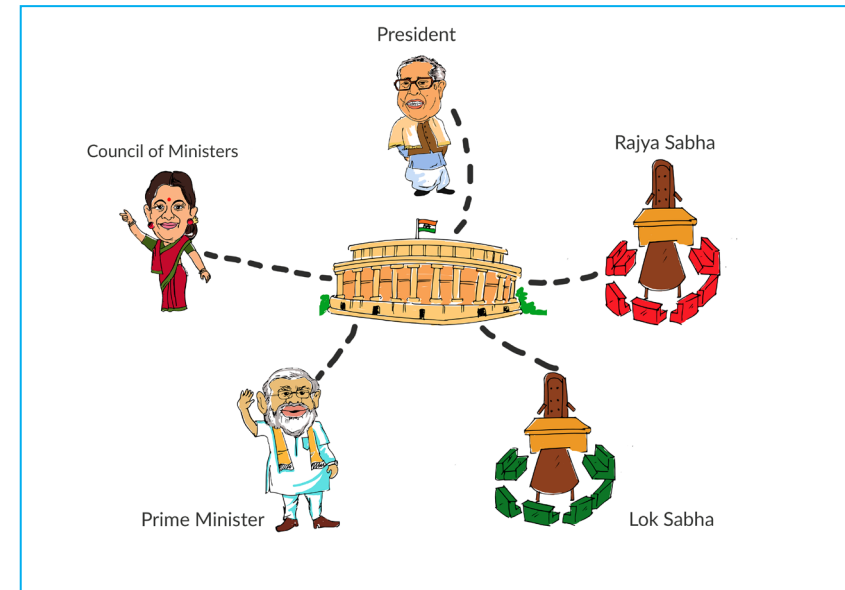
Before starting the concept the content is analyzed thoroughly.

The content was decided, based on the time and complexity of the system.

Children are introduced to Union government system in 8th standard. This concept is explained with text and few images. As this system is complex different components related to it are explained in bits and parts in chapters. As students go forward they fail to understand the relation between the last chapter and current chapter. Considering all these issues the content was narrow down to Parliament and its components so that children wont be bombarded with too much of information.

Content

1. Parliament
 2. President
 3. Lok Sabha
 4. Rajya Sabha
 5. Prime Minister
 6. Council of Ministers
- and their relation with each other.



Concept

Looking at pros and cons of different solutions concepts were generated where children can learn in easy way with more engagement

Studies have been shown that children learn faster and more when they interact and explore objects in their surroundings. Also children can handle technology in better way through tangible or physical objects they are familiar with. This technology is been used in museums to attract visitors of all age groups.

As government is a very complex system most of the children find it boring and difficult to learn. From the primary research it is found that, children are not encourage or motivated to learn about it outside the school and they memories the things easily which are displayed inside or outside the class. Hence it is very necessary to teach this concept in school itself. In addition to that, the concept should be explained with in simple and interesting manner so that children won't find it boring.

Considering all parameters two concepts were finalized and prototyped.

Concept 1:

Interactive installation

To make the learning interesting, installation can be used to teach government system. The idea behind this installation is to promote learning in school in non traditional way. The installation can be installed in school and can be used as a part of teaching. Children can play with it while free hours or as a part of learning activity.

In this installation children puzzle related to given topic of government system will be given on the installation. A child will be given some set of pieces where the answer of the puzzle will be given. A child has to put correct card in correct slot on the board.

After placing the correct card in slot the circuit will get completed and graphical video explaining the chunk of government will be played on the screen. Children has to go on completing the circuit till last final circuit.

At the end they can play the video again to understand the part which they have not understood earlier.

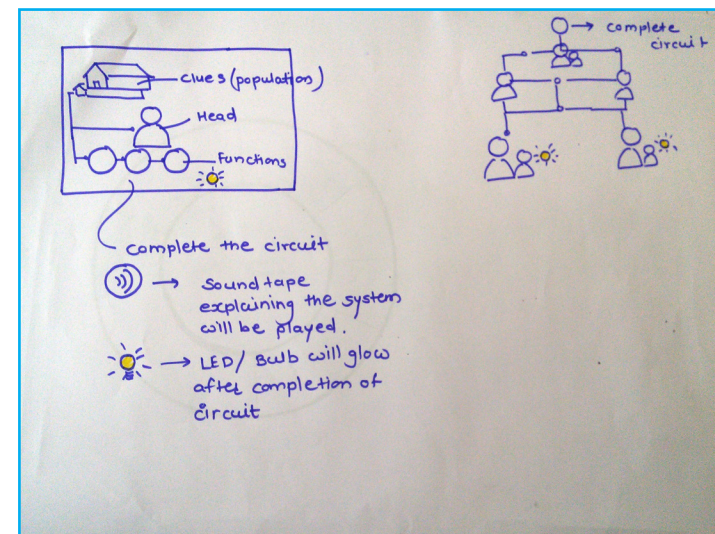
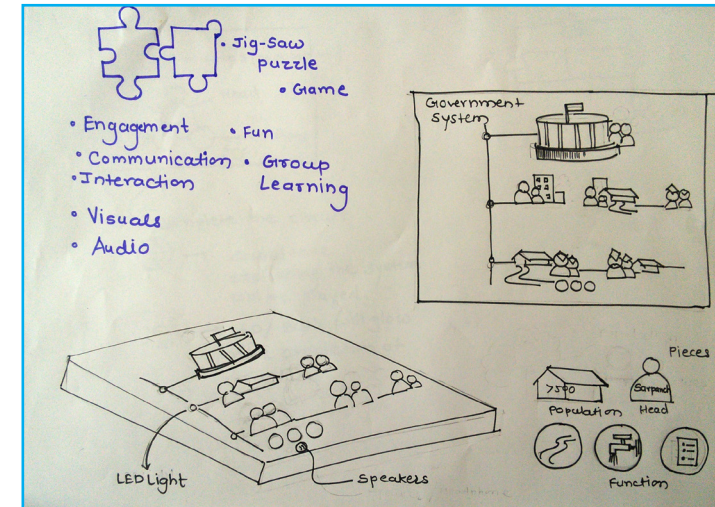
Videos will content key elements about the given component of the government so that the important part will get clear in students head.

Advantages

1. Tangible element - Children always like tangible things which they can touch or feel. 2D or 3D objects gives the feel of real objects.
2. Can see the overall system at one glance with info graphics - Even if they miss something in the video they can see the overall structure at one glance through info graphics on the board
3. Audio and Visual - Explaining the complex system combination of audio and visuals makes the learning easier and simpler.
4. Animation - Animation makes the learning fun and engaging

Disadvantages

1. Children might get confused between the different shapes
2. High cost
3. Needs space to installed



3D Interactive Installation

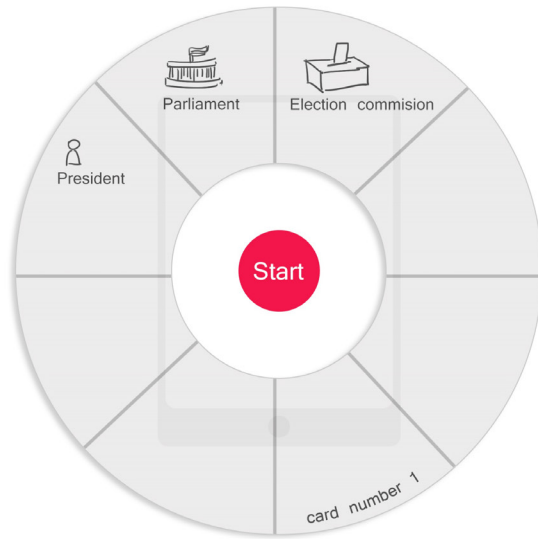
Concept 2:

Digital Interactive Wheel

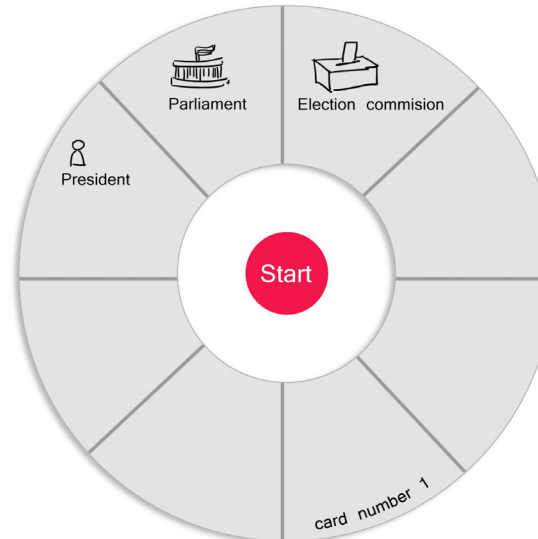
We found, as a child wheel is always fascinating thing because of its movement and rotation and it gives a feeling of acceleration and excitement.

The idea behind this concept is to add fun and excitement while learning. In the interactive wheel the children have to rotate the wheel and when it stops at the arrow the video related to that component will be played on the screen. The video will be graphical containing important information about that component. It will be mostly in the form of question answer narrative.

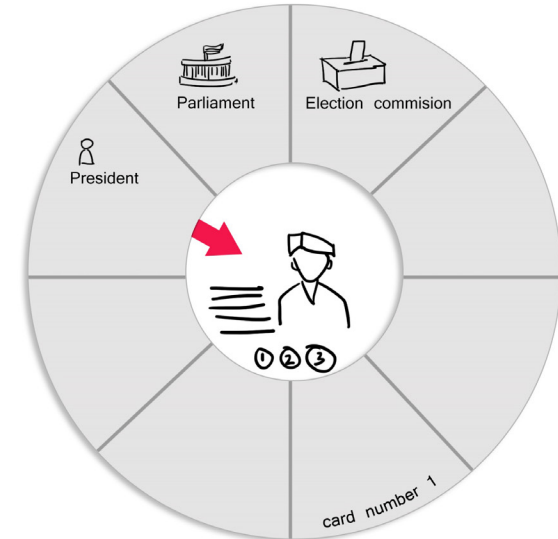
They can choose any of the two components and find out the relation between them.



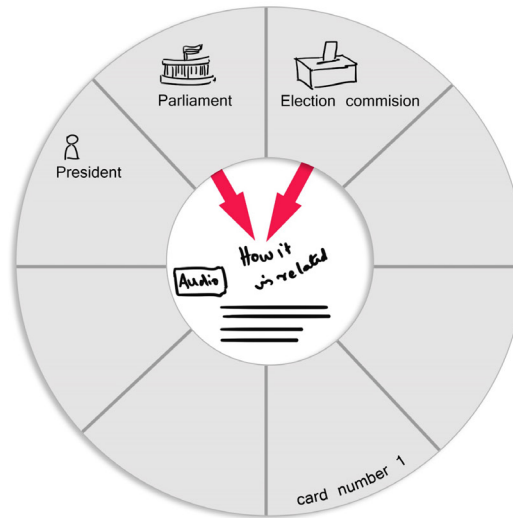
Place the card on screen



Play start on the middle screen



Rotate the wheel. When the wheel stops at the arrow, the video explaining that component will be played for example - The President Video will be played on the screen explaining about the President



Select any two option from the wheel, the video will be played explaining how those components are related

Advantages

1. Scalability - Different card can be placed on the wheel to learn government system on multilevel
2. Fun and excitement - Rotation of wheel will excites children and engage them for longer time.
3. Clear understanding- You can find relation between different components because of which the understanding of structure will get clear
4. Easy to access – As it is digital medium, it can be accessed easily on phone, tablet or desktop.

Disadvantages:

1. It is difficult to merge two medium – Tangible and digital
2. There is no way children can see overall structure at one glance
3. If they miss some part of video they have to rotate the wheel again and again to see same concept.
4. As it can be accessed on phone, tablet or desktop children might get distracted because of other things on the device.

In both the concept the video was chosen to explain the concept of the government.

The government system is a complicated concept and difficult to understand. Hence the medium to explain these concept should be self explanatory and easy to understand.

The video is a media where we can explain the different concepts with the help of visuals and audio. Its been studied that the short videos are well recieved by the students and imporoves the learning and retention of the student. In addition to this animation makes the learning fun and effective. [13][14]

The communication theory principles were used while making the videos.

Chunking - The information was divided into smaller related chunks. So that the learner understand the concepts effectively.

Logical Sequence - The chunks were divided in such a way that there should be logical sequencing between the information provided.

Repetition of data - As the concept explained is complicated to understand the information given was repeted at the end of the video in the form of summary. So if any learner miss any part of the information explained, he can retain it.

Prototype

After finalizing the concepts, both the concepts were prototyped and tested

Prototyping

Video

Simple explanatory videos were made to explain the concepts. Graphical animation was used to make the videos fun and interesting

Script

The videos were made in such a way that it should contain only important elements of the component of the parliament. The script was written in the form of conversation where narrator is narrating the information about the given component of the parliament. The script was mostly in the form of the conversation where important questions are asked which every user might be facing while understanding the content about the parliament.

Also while writing the content it was taken care that, one chunk of data is related to another chunk and information is linked to each other.

Illustrations

The illustration were drawn considering the target audience. Hand drawn illustration style is used to make it simple and understandable.

Character Making

Most of the children are familiar with famous political figures like Narendra Modi, Pranab Mukhrjee etc. Real life characters are taken from current political system so that children can relate to them easily.

Sample Script of Parliament

Parliament

Every day we hear about the parliament somewhere or the other
....in TV Channels, newspapers, from parents, etc...

....

But what is Parliament?

Parliament is a super legislative body in the Indian Government.
Legislative body? What is that?

The legislative body is a group of people who make laws for the country.

But how is this parliament related to our life?

Government and its ministry make decisions on our behalf about various things which are a part of our life, like transport, education, healthcare, food and even sports.

But parliament is bigger and the Government is a part of it.

Look, Parliament consists of the President of India and two houses, namely:

The upper house- Rajya Sabha or 'Council of states'
and The lower house- Lok Sabha or 'House of people'.
are called 'Members of the Parliament' or 'MP's'.

While on the other hand, the Government is formed by the party who gets more than half of the seats and gets majority votes after the General election of Lok Sabha. Members of both these houses are called 'Members of the Parliament' or 'MP's'.

So what does the Parliament do exactly?

The Parliament checks to see if the government is doing a good job or not. If they are not, they can raise a question against it.

The period during which the House conducts its meetings is called a session.

The parliament conducts three sessions each year

- Budget session.
- Monsoon session:
- Winter session:

How do we contribute to Parliament and its decisions?

The country is divided into numerous constituencies.
Each of these constituencies elects one person to the parliament.
Once these Candidates become part of parliament they become Members of Parliament.

We elect the members of the Lok Sabha directly through General elections and the members of the Rajya Sabha, indirectly through State Legislative Assemblies.

So what did we learn about the parliament?

Parliament is super legislative body which makes laws for country. Government is a part of the parliament and makes decisions for the people of country.

The Parliament is composed of – The President, the Lok Sabha and the Rajya Sabha.

The Parliament administers the working of the Government. By voting we elect the members of the parliament directly or indirectly.

This is why it is important to cast our vote- because it is our vote that makes up the country's Parliament.

Character Making



Prime Minister

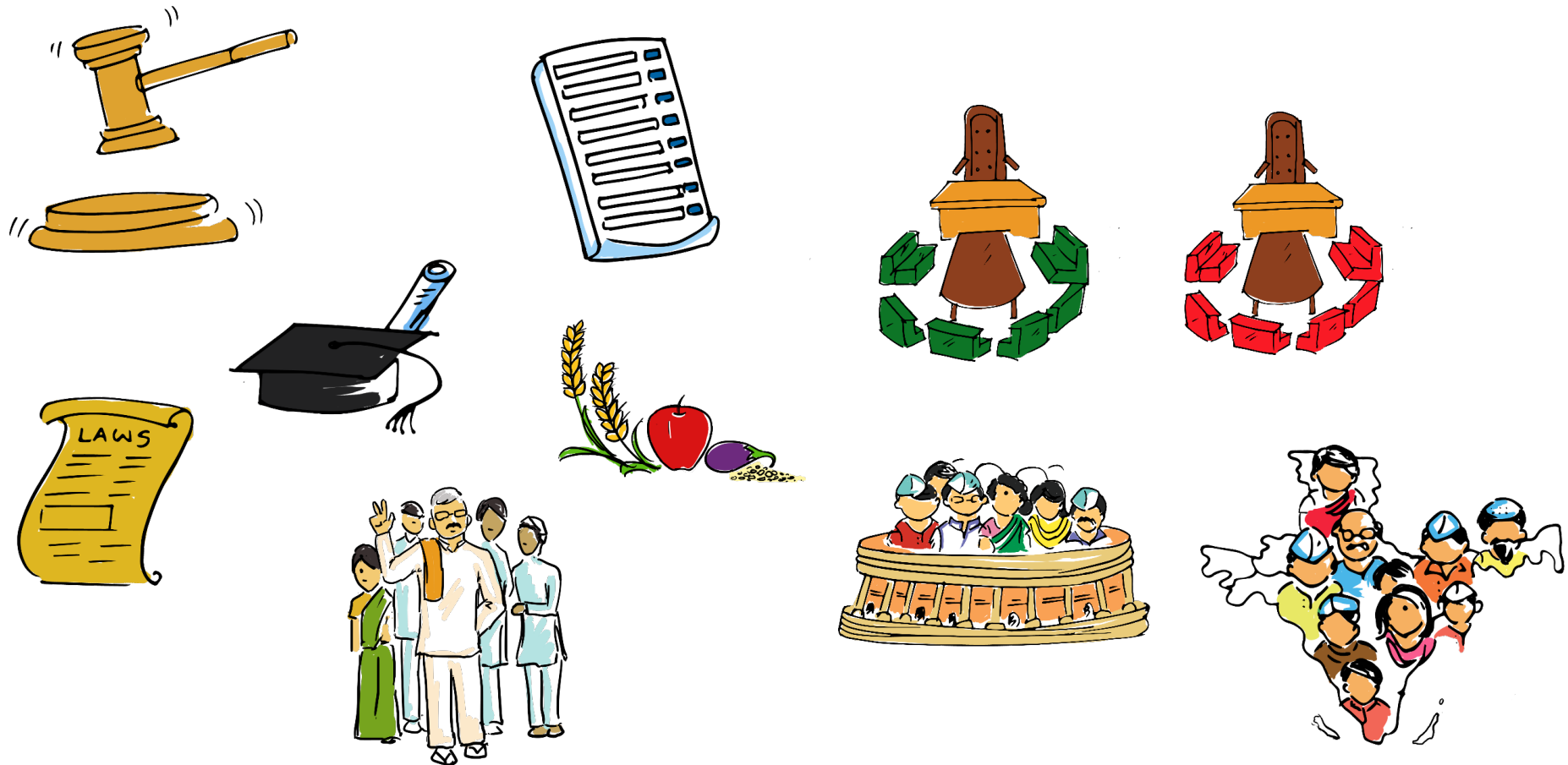


Council of Ministers



President

Illustrations



Some Illustrations used in video



Prototype of Installation

Prototyping

After finalizing the concepts, both the concepts were finalized and tested

Concept 1:

Interactive installation

Paper prototype was made out of cardboard and thermocol to give a 3D effect.

LED circuits were put after each chunk of information on board to give visual feedback.

The buzzer was connected to the master(last circuit) to give the feedback of the completion of circuit. By putting the correct piece in its respective slot, the circuit will get completed . After completion of circuit , the LED light turns on and the video of the respective chunk of information is played on screen.

Problems found after the prototyping

1. All pieces should be of different shapes and should go in the correct slot, other wise the children might place the wrong piece in the wrong slot
2. No piece should go in any other slot except the correct one
3. There shouldn't be too much of information in one chunk of video, so that they can register it easily.
4. The video should allow the user to stop and play video again and again, so if someone misses any information he/she can watch the video from wherever they want

Interactive wheel

In this prototype two wheels were designed digitally.

Simple wheel - For learning about the individual components of the parliament

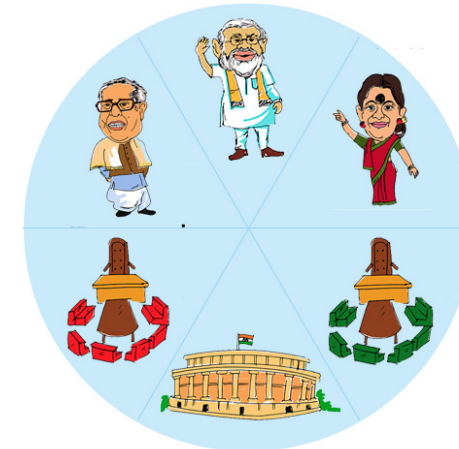
Concentric wheel – For learning the relationship between the two components of the parliament

Here, user was supposed to rotate the wheel and the simple explanatory video related to the component was played where the wheel stops at the pointer.

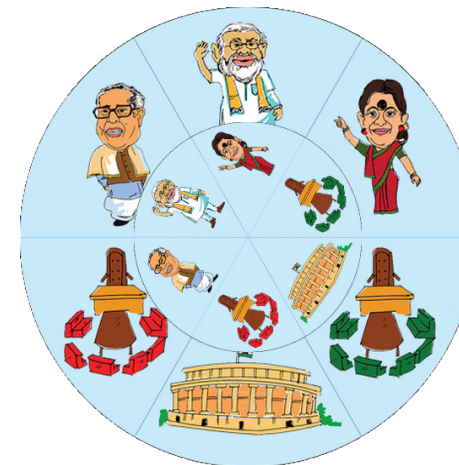
The user could see the relation between the parliament and its component by rotating the concentric wheel. The explanatory video was played where the two wheels align with each other at the pointer.

Problems found after the prototyping

1. User was not able to store the data, as any chunk of information explained in videos does not remain on screen more than 10 seconds.
2. There is no way the user can get overall view of the system explained in the video.
3. If user wants to see any information again he has to repeatedly rotate the wheel.



Simple Wheel



Concentric Wheel

Final Prototype

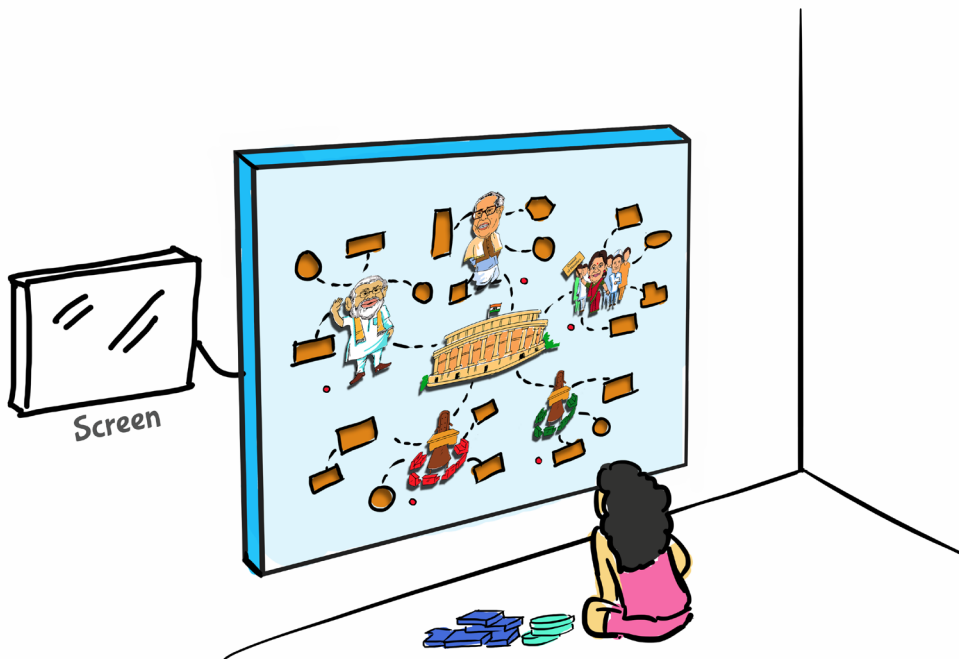
After testing both the prototypes it was found that videos were playing important role in understanding the concept. In interactive installation children were not able to understand the puzzle element without watching the video. Once they watch the video it was easier for them to solve the puzzle given on the installation board. So I tried to combine both of the solution together and solve the problem.

Final Solution - Installation to Teach Indian Parliament for Children

In this installation the children were given the installation which was divided into 5 different components - Parliament, President, Prime Minister, Council of Minister, Lok Sabha and Rajya Sabha

All these component are connected to The Parliament. Each of these elements will be in the form of puzzle where Important questions related to that component will be asked in the form of jigsaw puzzle. The child will be provided some pieces which fits into the puzzle and answer the question. The installation will be connected to the digital screen where all the five components of the Parliament will be given including the Parliament.

The child can select any of the component given on the screen and watch the video first. Once he finishes the video he/she has to solve the puzzle given on the board related to that component by placing the correct piece in the correct slot. Once he/she put all the pieces in correct slot the circuit will be completed and it will give the feedback by glowing the light. Once one component is finished user can move to next video and start solving the puzzle.



Script

The script refined and modified for all 6 components. The same question answer format was given in each script to clear the confusion and common question about each component.

The scripts for all 5 component were as given
At the end of each script, the overall summary of the given component was given to get the overview and if child miss any part , he/she can recall it easily.

President

The President of India is the head of state of India.

The President is the formal head of the executive branch, the legislature branch and the judiciary branch of India and is the commander-in-chief of the Indian Armed Forces.

The President of India is elected by the elected members of the Parliament, who are these guys and elected members of state legislative assemblies who are these guys and serves for a term of five years.

So anyone can be The President?

Well no, there are some eligibility criteria. The person should be 35 years old and citizen of India.

So what exactly does the President do?

The President supervises the overall functioning of all the political institutions in the country. Wow, so what does that mean? All laws and major appointments like appointing the chief justice, judges of the Supreme Court and high court, Governors of states are done under the name of the president. But still the president is nominal executive and has a nominal power in his/her hand.

But why the president is called as nominal head?

Though the major decisions are taken under the name of the president, he cannot take any official decision directly like the Prime minister can. He can use his powers only on the advice of Prime minister and the council of Ministers.

So the president is the head of the country though he has only nominal powers.

Prime Minister

The Prime Minister is the most important political institution in the country. The Prime minister is the chief of government, chief adviser to the President of India, the head of the Council of Ministers and chief advisor of President.

So how is the Prime Minister elected?

The Prime Minister is appointed by the president. The president appoints the leader of the party who proves a majority after the general election of Lok Sabha. The prime minister can remain in his position as long as he remains the leader of the majority party.

Hmm..

Then the prime minister has to be from Lok Sabha?

No, the prime minister can be a member of the Lok Sabha or the Rajya Sabha. If the person chosen as the prime minister is neither a member of the Lok Sabha nor the Rajya Sabha at the time of selection, he must become a member of either of the houses within six months.

So what does the Prime minister do?

The prime minister selects the council of ministers for the working of the government. He coordinates the work of the different departments. He heads the cabinet meetings takes the final decision in case of disagreement between the departments. He exercises general supervision of different ministries.

He also has the power to dismiss ministers. The resignation of prime minister is considered to be the resignation of the entire council of ministers.

The prime minister, in consultation with the Cabinet, schedules and attends the sessions of the Houses of Parliament and is required to answer the question from the Members of Parliament.

The Prime minister represents the country in various delegations, high level meetings and international organization that requires the attendance of highest government officer.

So what we learn about the Prime minister?

The prime is chief of government, chief adviser to the President of India, the head of the Council of Ministers and chief advisor of President.

The prime minister is the leader of the party who gets the majority in the Lok Sabha

The prime minister handles the overall functioning of different departments and ministries.

He represents the country at international levels as highest government officer.

Council of Ministers

Council of Ministers

Council of Ministers...

Council of Ministers is an official name for the body that includes all the ministers. It is a collective decision-making body of the Government of India, consisting of a group of ministers headed by the Prime Minister. The council of ministers is decided by the Prime Minister. The prime minister is free to choose ministers, as long as they are members of the parliament. The various departments are allotted to various ministers by the Prime Minister.

So all council ministers have same profile ?

Well, No,....The council of Ministers is ranked in three categories.

Cabinet Ministers, Minister of States with independent charges and Ministers of State

Cabinet Ministers are usually top level leaders of ruling party or parties who are in charge of major ministries. Cabinet ministers meet to take decisions in the name of the council of ministers. Thus the cabinet is inner ring of the council. The decision of the cabinet is binding on all ministers.

Ministers of states with independent charges are usually in charge of smaller ministries. They participate in the cabinet meetings when specially invited.

Ministers of State are required to assist Cabinet Ministers.

So what do these council of ministers do?

The council of ministers makes policies and programs to solve issues before the country. They prepare the annual budget, propose new laws in parliament. The Cabinet Secretary provide assistance to the council of ministers and acts as an advisor.

So the council of ministers is a decision making body of the government.

The members of the council are chosen by the Prime minister.

The council of Ministers is ranked in three categories according to their charges as – Cabinet ministers, Ministers of states with independent charges and Ministers of States

Council of Ministers makes policies and laws for welfare of the country.

Lok Sabha

Lok Sabha,

The Lok Sabha or House of the People is the lower house of the Parliament of India. It is called as Lok Sabha because the members of Lok Sabha are directly elected by the vote of the people through a general election of Lok Sabha. The Lok Sabha has a fixed duration of 5 years, but can be dissolved due to any political, economic or social issue.

Its maximum membership is 550, out of which some seats are reserved for scheduled castes and tribes and also, if the Anglo Indian community is not adequately represented, the president can nominate two members from that community to lok sabha. The Lok Sabha is the powerful house of the parliament.

Hmmm....

Powerful house? Why, that's so?

The Lok Sabha is a very important part of the legislature branch of the country which contributes to making laws for the country. Any ordinary law needs to be passed by the both the houses of the parliament. The final decision taken in a joint meeting of both houses, where the decision of lok sabha is likely to win because of its larger number of members of Lok Sabha than Rajya Sabha.

So what other powers the Lok sabha has?

Apart from legislative power the lok sabha controls the finance of the country....

Finance...waahooo..How is that?

A money bill has to introduce in Lok sabha. The Government prepares the budget of its income and expenditure which has to be approved by the Lok Sabha.

So is there any other way where Lok Sabha influences the Government and its ministers?

Lok Sabha can ask questions to council of ministers for their actions and controls them, If the Lok Sabha a motion of no confidence with a majority vote against the council of ministers, the council of ministers has to resign, including the Prime Ministers.

So Lok Sabha is

Lower house of Parliament and consists of maximum 552 members – Including reserved categories and Anglo Indian community.

It plays important role in making new laws for the country.

Budget, money bills are controlled by the Lok Sabha

Lok Sabha can ask questions to council of ministers for their actions and controls them.

Rajya Sabha

Rajya sabha

The Rajya Sabha or Council of States is the upper house of the Parliament of India.

It consists of 250 members Out of these... 238 members represent the states, while the other 12 are nominated by the President of India from amongst persons with special knowledge or practical experience in the field of Literature, Science, Art and Social Sciences. ...

So how these members are elected?

The representatives of the states are elected by elected members of the State Legislative Assemblies. The States elect members of Rajya Sabha in proportion to their own population, for example Andhra Pradesh has 11 seats while Goa has only one seat. The Rajya Sabha is a permanent house and is not subject to dissolution. But one-third of the members of Rajya Sabha retire after every two years and new ones are elected in their place. In this way each member gets a term of six years

So what are the functions of Rajya Sabha?

Like the Lok Sabha, Rajya Sabha also has the power to discuss, introduce a bill. The approval of the Rajya Sabha too, is necessary for converting a bill into a law. The members can put question against the ministers. They can criticize the government's policies.

Then, why is lok sabha called as the powerful house?

As the members of Rajya Sabha are not elected directly by people, money bill cannot be introduced in the Rajya Sabha as the Lok Sabha can. Though Rajya Sabha can delay the bill by 14 days, proposed by the lok sabha and send it back for the recommendation. But Lok Saha may or may not accept the changes. Apart from this Rajya Sabha cannot pass the motion of no confidence against the government.

So Rajya sabha is –

The Upper house of the Parliament of India.

It has maximum 250 members, including 230 representatives of states and 12 members of the special knowledge area.

Except money bill, rajya sabha has power to discuss or introduce a bill.

The approval of the Rajya Sabha too, is necessary for converting a bill into a law.

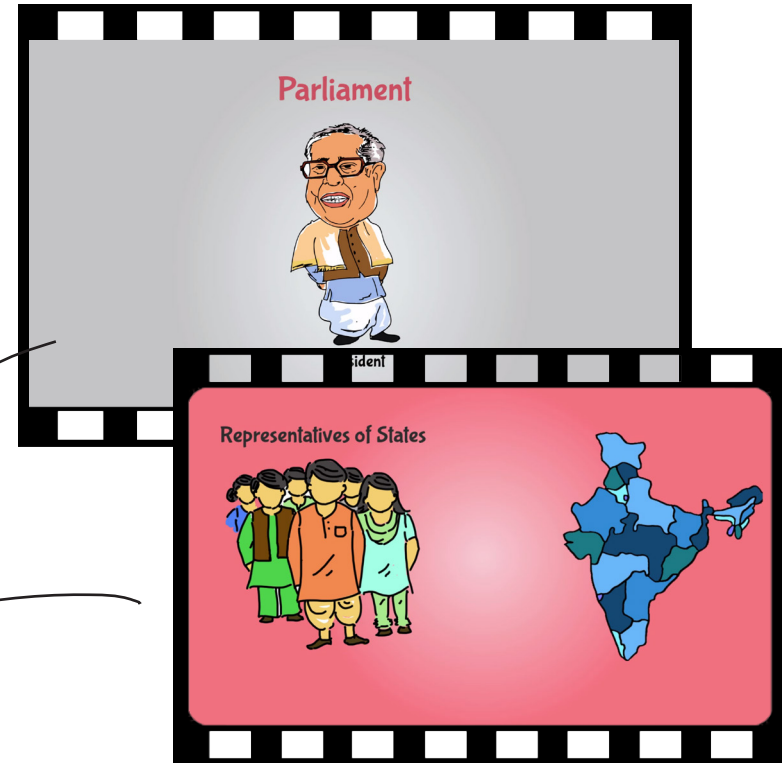
The speed of the narration was kept consistent and slow so that while watching the videos student can understand the content easily. The length of each video was about minimum 2 minute and maximum 2.45 sec

The videos were kept simple with the help of graphical animation, visual and text.

Font and colors were chosen keeping the target audience as children.

Font Used - Bubblegum Sans

Final Prototype



Puzzle given on the Installation

Parliament

1. What is Parliament?

Ans - Picture of laws and book which makes laws for country.

2. _____ makes decision about transportation, education, healthcare, food and even sports which are part of our life

Ans -Picture of Government

3. Parliament consists of – Lok Sabha Rajya Sabha and the President

Ans- Pictures of Lok Sabha Rajya Sabha and the President)

4. How the members of parliament are elected?

Ans - Pictures of vote

President

1. President is head of _____

(Pictures of executive branch, the legislature branch and the judiciary branch of India and is the commander-in-chief of the Indian Armed Forces.)

2. President is elected by elected members of the Parliament and elected members of state legislative assemblies (Picture of MP and MLA)

3. What is the eligibility criteria to be the president? (picture of 35 years, citizen of India)

4. President appoints _____
(Pictures of the chief justice, judges of the Supreme Court and high court, Governors of states)

Lok Sabha

1. _____ is lower house of the parliament
(Picture of Lok Sabha)

2. Lok Sabha's maximum membership is _____ including reserved category and has a period of 5 years (550)

3. _____ bill is introduced only in Lok Sabha (Money Bill)

4. Lok Sabha controls the _____ of Ministers
(Council Ministers)

Rajya Sabha

1. _____ is a upper house of the parliament (Rajya Sabha)

2. Who elects the member of Rajya Sabha?
(Picture of State legislative assemblies)

3. Rajya Sabha is consists of maximum _____ members
(250 picture) and has a fixed term of 6 years.

4. Except _____ rajya sabha has power to discuss or introduce any other bills.(Money Bill)

PM

1. _____ is a chief advisor of the President of India, the head of the Council of Ministers (Prime Minister)
2. The prime minister selects the _____ for the working of the government and coordinates the work of the different departments. (Council of Ministers)
3. How the Prime Minister gets elected? - _____ appoints the Prime Minister and is the leader of the party who gets the majority in the _____ (Lok Sabha) general elections.

Council of Ministers

1. _____ is an official name for the body that includes all the ministers (Council of Ministers)
2. The council of Ministers are headed by the _____ (Prime Minister)
3. Council of Ministers are ranked in 3 categories _____ (Cabinet Ministers, Minister of States with independent charges and Ministers of State)
4. Council of Ministers makes _____ for welfare of the country. (Policies and Laws)

On each of the piece picture of answer ket will be given with small text so that children can understand the correct answer for each slot.

Evaluation Criteria

Evaluation criteria was set to evaluate the solution and how learning is happening through videos.

User Criteria

1. The following was the user criteria for evaluation (tentative)
2. Three 8th standard students (as parliament is introduced to students in 7th and 8th standard)
3. Three 7th standard students

Evaluation Criteria

1. After using the solution, the students should be able to understand the difference between the parliament and government
2. The students should be able to list down at least two functions of the parliament
3. Students should be able to understand the relation between the different components of the parliament

Apart from this, the solution was evaluated based on engagement and usability of the solution.

Evaluation

Evaluation

Total no of users – 12, 5 students of 8th standard, 2 students of 9th standard
5 students of 7th standard

Process

Pre test - In Pre Test children were asked simple question about each component of the Parliament to understand their previous knowledge about that subject.

Post test - In Post Test children were asked same question asked in Pretest, they couldn't answer. In addition to that they were asked some additional question which were explained in the videos.

Evaluation without installation

Evaluation with installation

Evaluation was done in two stages, in first stage evaluation was done with installation and in second stage evaluation was done with installation.

Findings and observation from evaluation

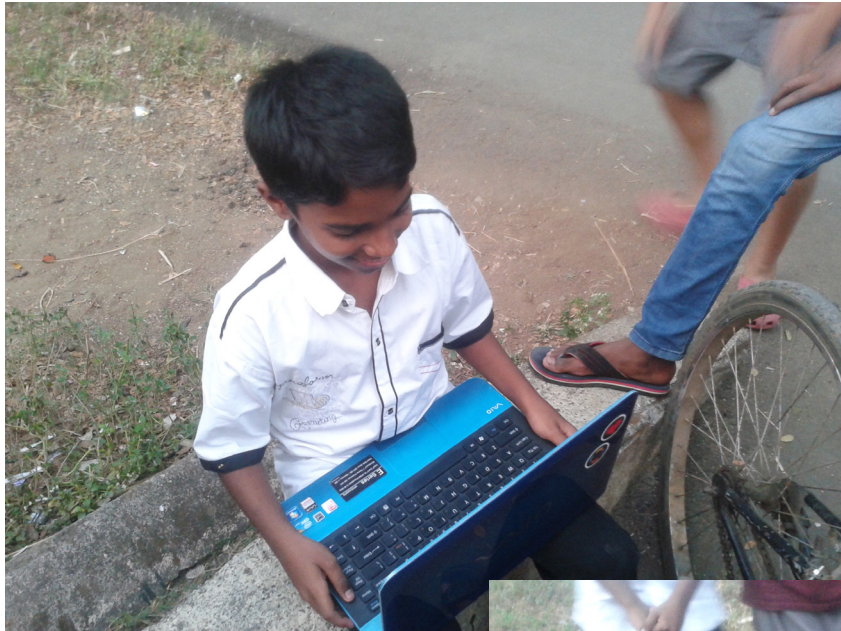
Evaluation without installation

User has to watch the video 2 times to understand the concept.

Once they watch the video they tend to forget some concept explained in videos even though there was repeatation of summary at the end of video.

4 out of 12 students stopped the video in between to see the video again to understand the concept again.

2 student had to watch the video 3 times because they couldn't understand the English properly.



Evaluation without installation

Findings and observation from evaluation

Evaluation with installation

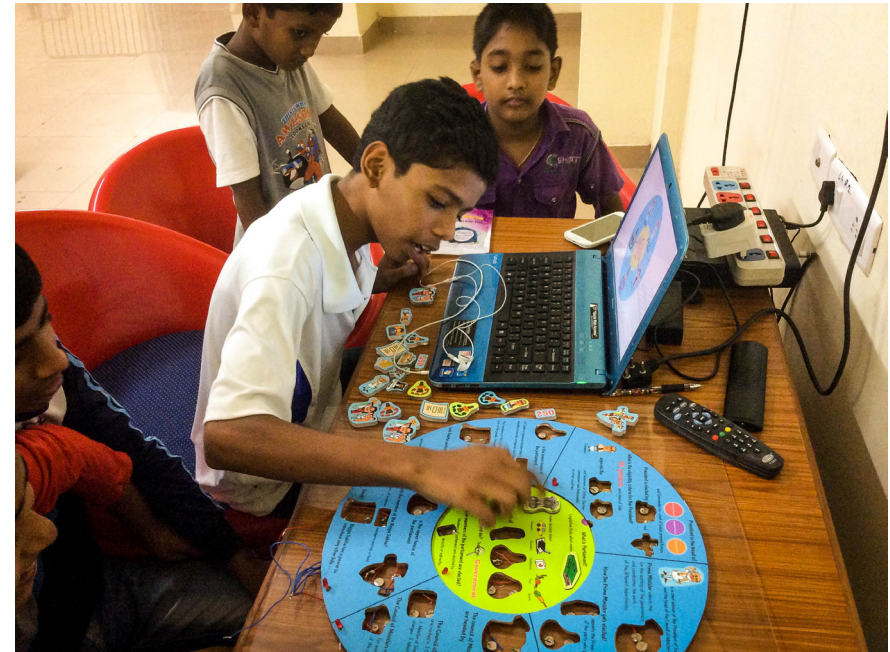
User has to watch the video 1 or 2 time to understand the concept

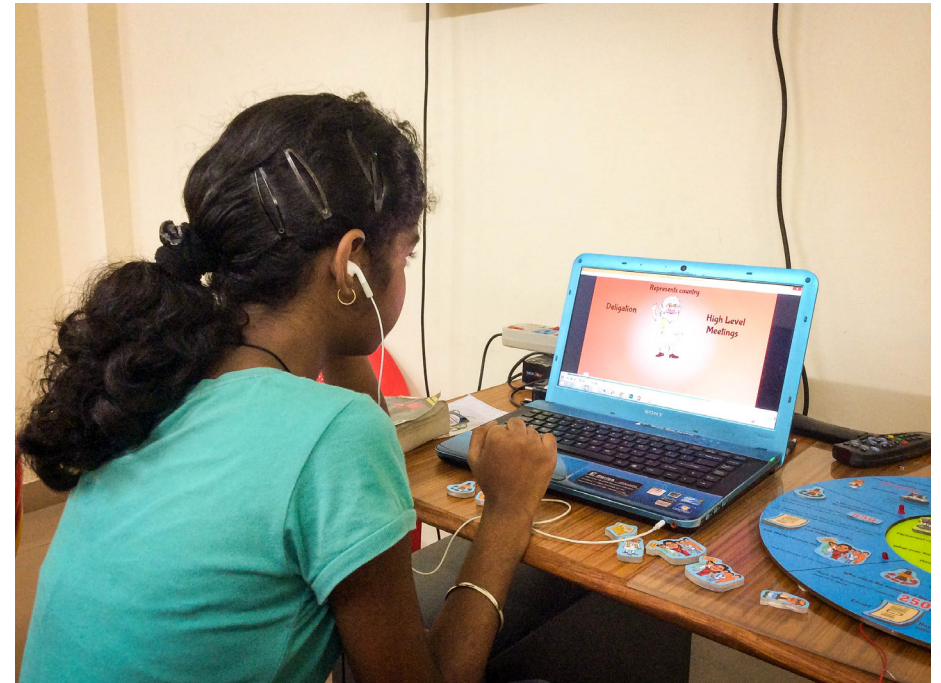
While watching the video the students were concentrating the video more to solve the puzzle and get the clues from video which made the concentration time per student more as compare to just videos.

While solving the puzzle they were reading the information on the installation and try to remember the content shown in the video.

Also, they were observing the visuals while solving the puzzle, like Rajya Sabha - Red color and Lok Sabha - Green color.

Difficult terms like Legislative system, Judiciary got clear because of simple visuals in videos and installation.





Evaluation with installation

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