



Using Nudges to Prompt Positive actions among children in school

Guide: Prof Ravi Poovaiah

Thuli N Chishi | 176330004

Children

Often negative interactions occur when managing children.

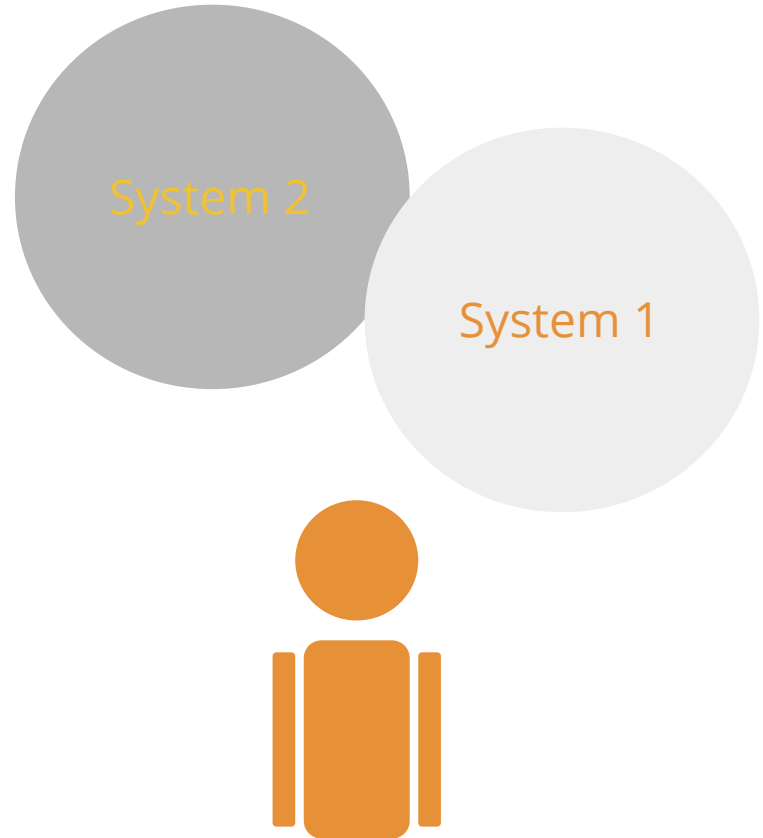
Teachers, parents or any grown adult with a child knows how frustrating it can become.



Nudge

A nudge is any ***change in the choice architecture*** that influences decision making.

“A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not.” Richard Thaler, Cass Sunstein



Nudging and children

Using nudges, children could be prompted to behave and commit to healthy behaviours.



Examples of Nudge

Fly in toilet

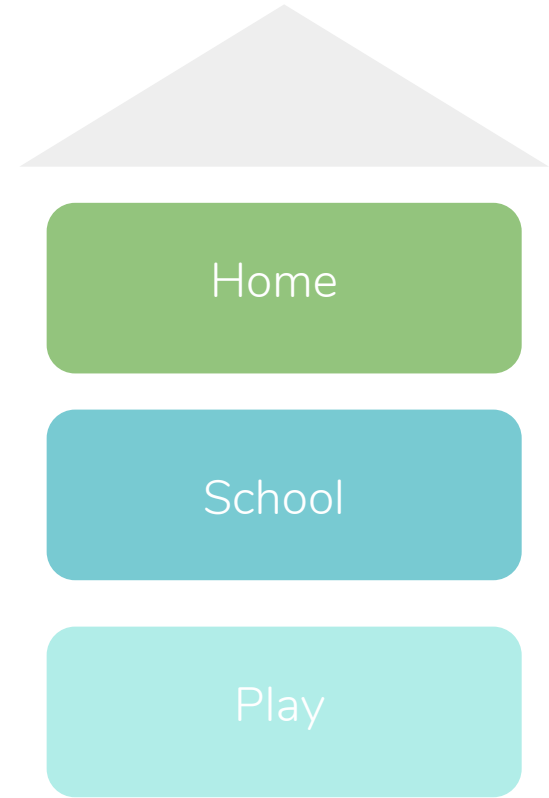


Shoe stickers by Niyati Mehta



Primary research

Goal- Exploring the domains to narrow the focus and find problem areas.



Primary research

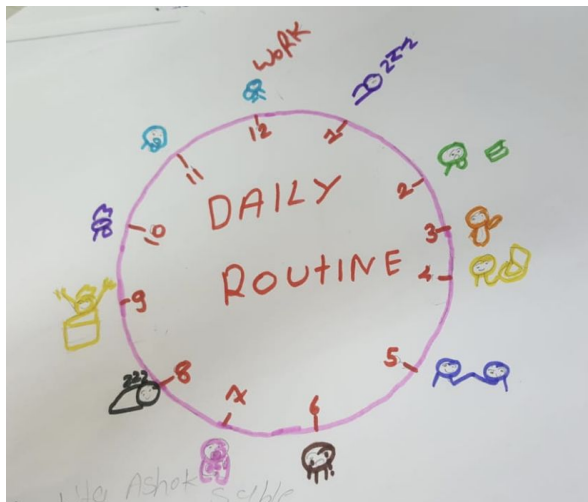
- Unstructured interviews with Parents and Teachers.
- Narration of stories and experiences with children.
- Interaction and activities with children.



Qualitative analysis

Identifying key comments from teachers and parents.

Assessing children through activities performed.



I'm happy that my kids know how to behave at other people's houses	My 8 year old son is more understanding, won't ask for things. He'll just stare.	My son tried to follow a timetable after learning his dad had one when he was a kid.	I give my kid a good whack in the head if he misbehaves.	I give my kid a good whack in the head if he misbehaves.
My Children watches what I do and imitates it	Sometimes they learn better through experience	I want my children to be good citizens.	My Kids aren't allowed to open the door for anybody when we are not home, even if it's someone they know	I give my kid a good whack in the head if he misbehaves.
Children should not be limited by conformed shapes	I tell my son we only have to spend this much and he buys toys keeping in mind the price.	My Child Gets lonely sometimes	My child says his father is her favorite because he buys them everything they ask.	I give my kid a good whack in the head if he misbehaves.
My Son negotiates study time with playing on the phone	My son only stated reading after he was given a Kindle	I don't let my children use technology	They don't do so well in their second language	The more they use their hands their brains get simulated

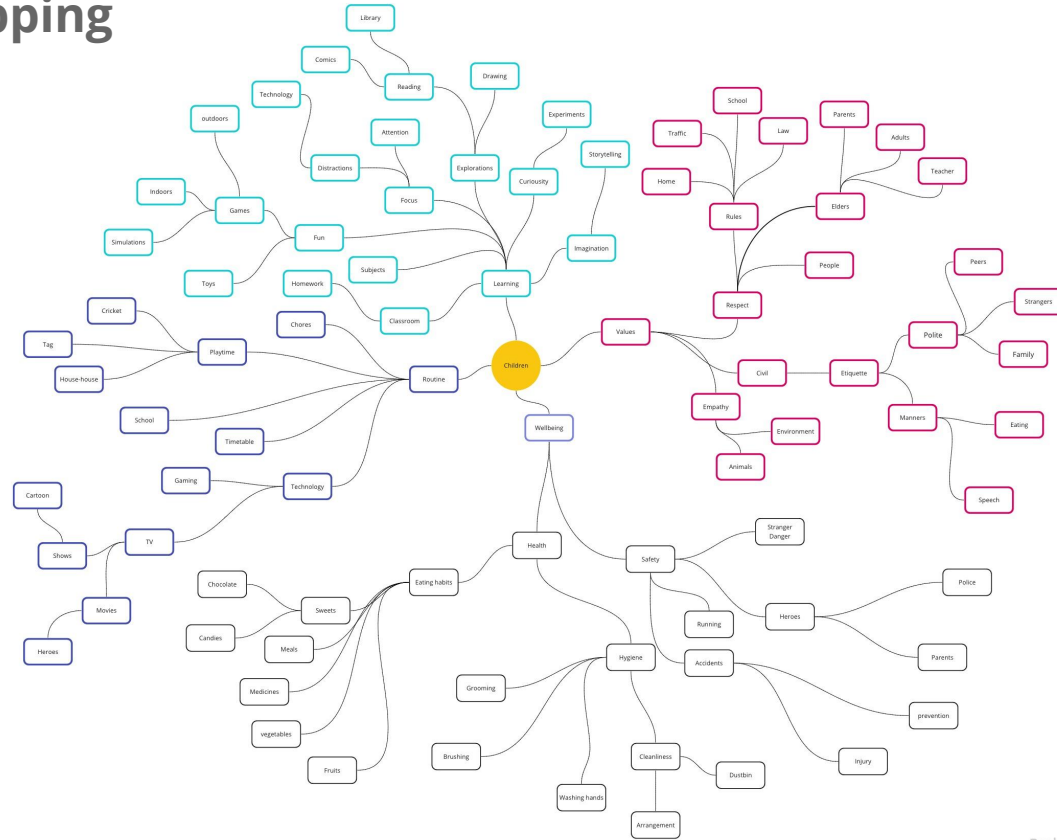


Problem statement

- Parents from a ***better socio economic*** background are able to invest proper time and ***resources in raising their children.***
- Children from ***low income backgrounds*** are ***often neglected by parents.***
- It is often ***left upto schools*** to take care of these children's needs.

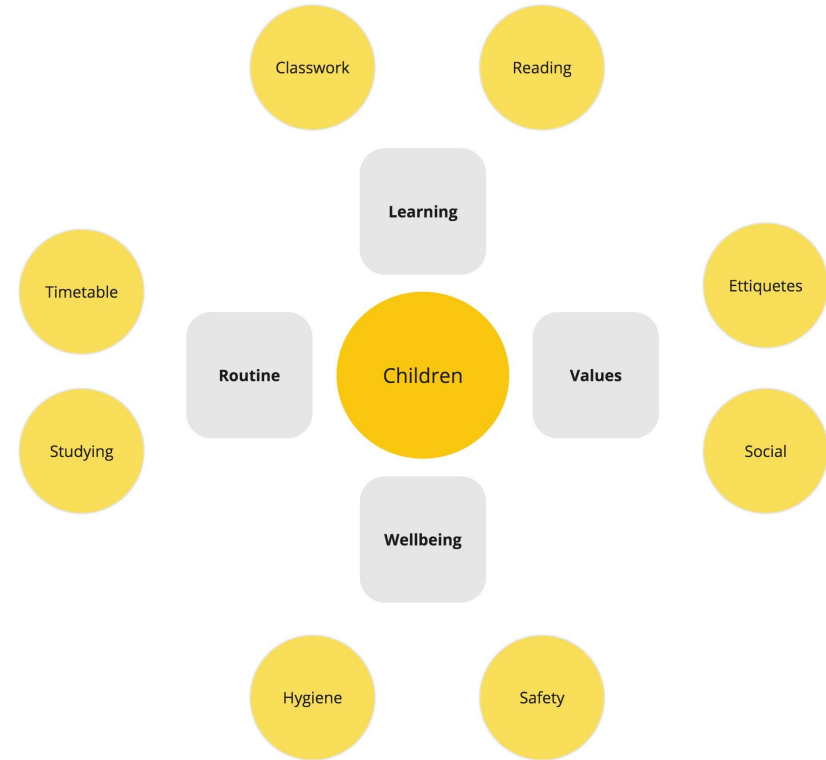
Using Nudges for Children age 7-11 in low income schools.

Keyword mapping

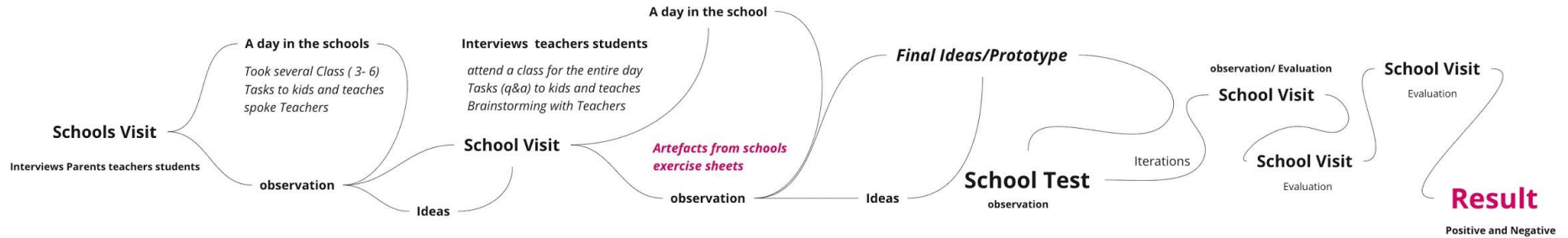


Converging the area

Clustering keywords



Roadmap



Process

● Problem

Take an identified intervention opportunity from findings

● Context

Understand the context of the problem, the behaviour of the children.

● Nudge

Pick an appropriate nudge from the list based on the context.

● Test

Detail the nudge, validate. Test and iterate.

Problems

Inside the classroom

Helping children sit properly

Controlling the noise level in the classroom

Encouraging children to do proper classwork

Outside the classroom

Hygiene and cleanliness

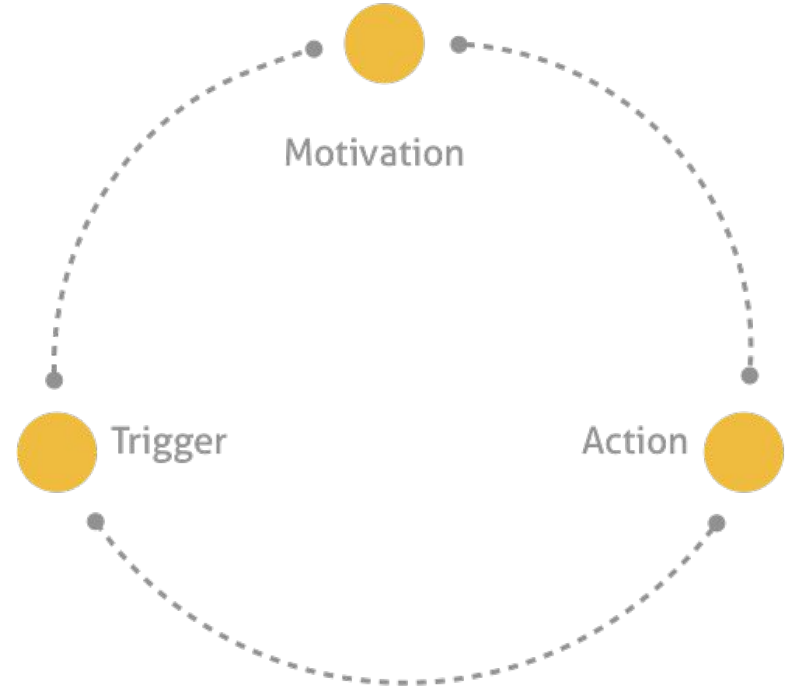
Safety

Understanding the context

Action What should the children do?

Motivation What do they like?

Trigger What could cue them?



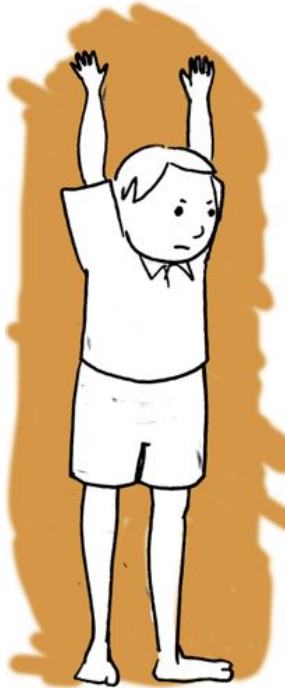


Personas

Mihir 8,

Always gets into trouble for having fun.

Won't mind not getting punished.



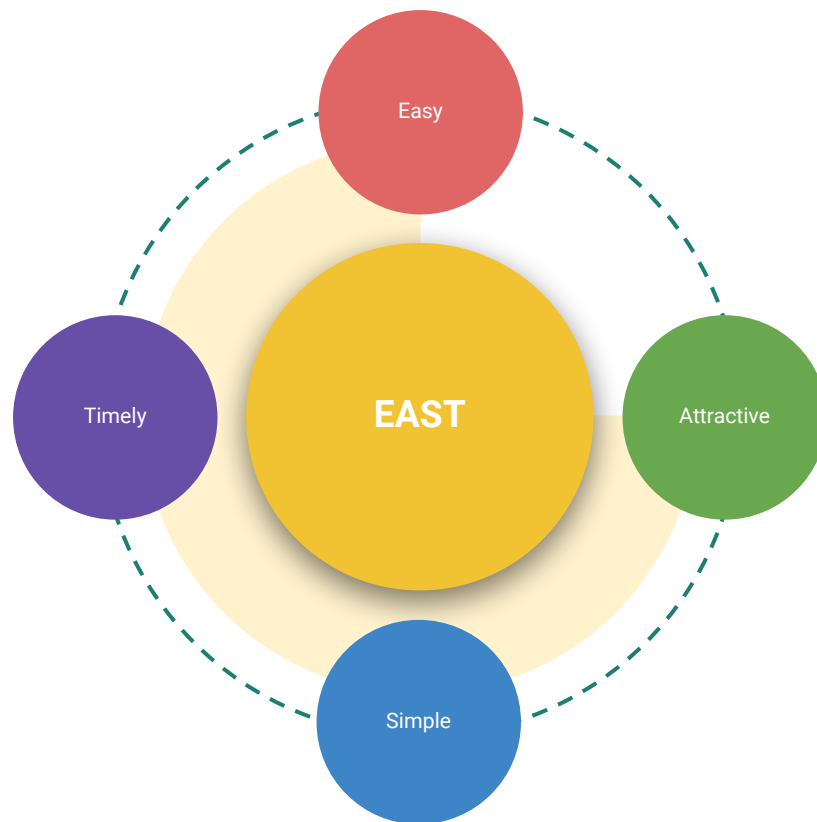
Dhanushree 7

Shy and just started school.

She likes drawing and talking.



Nudge Framework



List of ideas

Problem	Solution Ideas	Nudge Technique
Children do not know how to sit properly	Using graphical images to place their feet on the floor.	Priming
Help Children read more	Children like looking at the pictures of storybooks more than reading; changing the architecture of it by letting them only see the images after reading can help.	Default rules
Maintaining discipline in class	Using a buzzer system that activates when children's noise level increases it rings	Salience
Teaching values to children	Using an interactive poster to garner children's attention to moral values	Moral suasion, descriptive norms
Helping kids keep a consistent study routine	Use a timetable to help children anticipate the amount of work left to do in terms of classwork for the day or for the whole week	Reminders, incentives
Motivating children to improve their work	Using visual charts to help children keep track of their performance and be motivated to work better	Descriptive norms, Incentives
Help the weaker children to catch up with the better performing children	Creating a buddy system, teaming up the children to help each other.	Social proof

List of ideas

Problem	Solution Ideas	Nudge Technique
Washing hands	Painting the taps to make them more attractive	Saliance, visual.
	Designing soap sleeves	Saliance, Visual
Keeping their environment clean by using the dustbin	By highlighting the dustbin and using the elements of fun to direct the children towards using the dustbin more	Saliance
Preventing them from running in hallways	Distracting the child through visual and graphical solutions	Saliance
Helping Children do their Classwork	Introducing worksheets	Simplification

Testing and Iterations

Consistent feedback from teachers, students and classroom interactions informed design decisions through the whole project.



Final Ideas

The ideas were filtered out and narrowed down for implementation and evaluation. The criterias for narrowing them down were based on:-

- Novelty
- Feasibility
- Feedback from users



Floor pads

Problem: Kids have to learn to sit properly

Nudge Technique: Cue Salience

Solution: Anchoring a child's foot by using graphical cues on the floor.

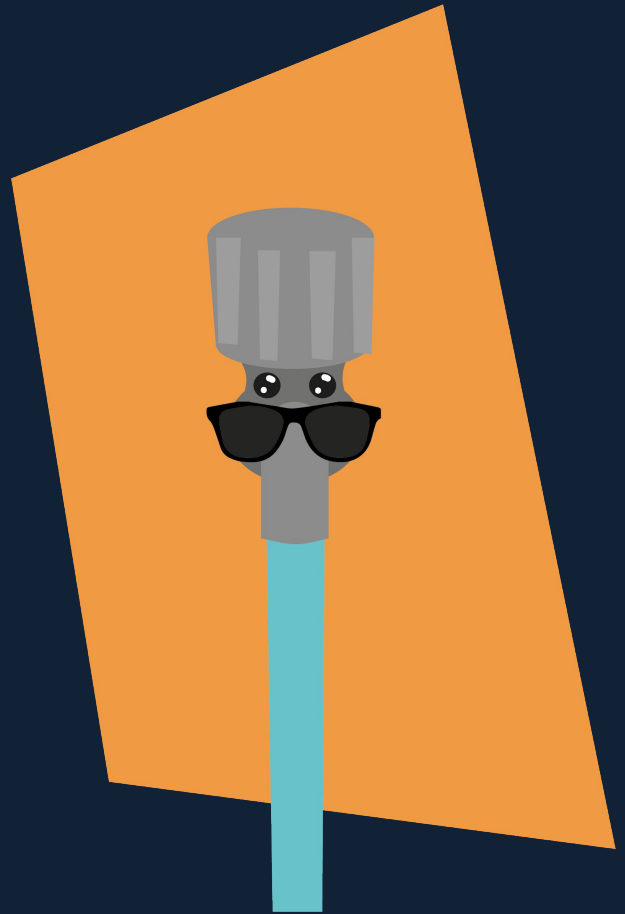


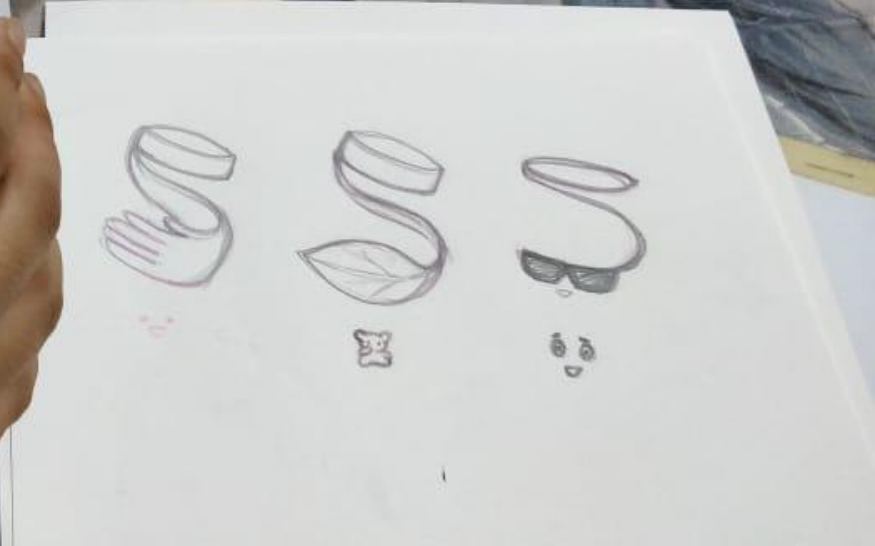
Final Ideas

Problem: Kids do not wash hands

Nudge Technique: Salience

Solution: By highlighting the taps in bathrooms and around the schools, the children would be more attracted and reminded to wash hands.







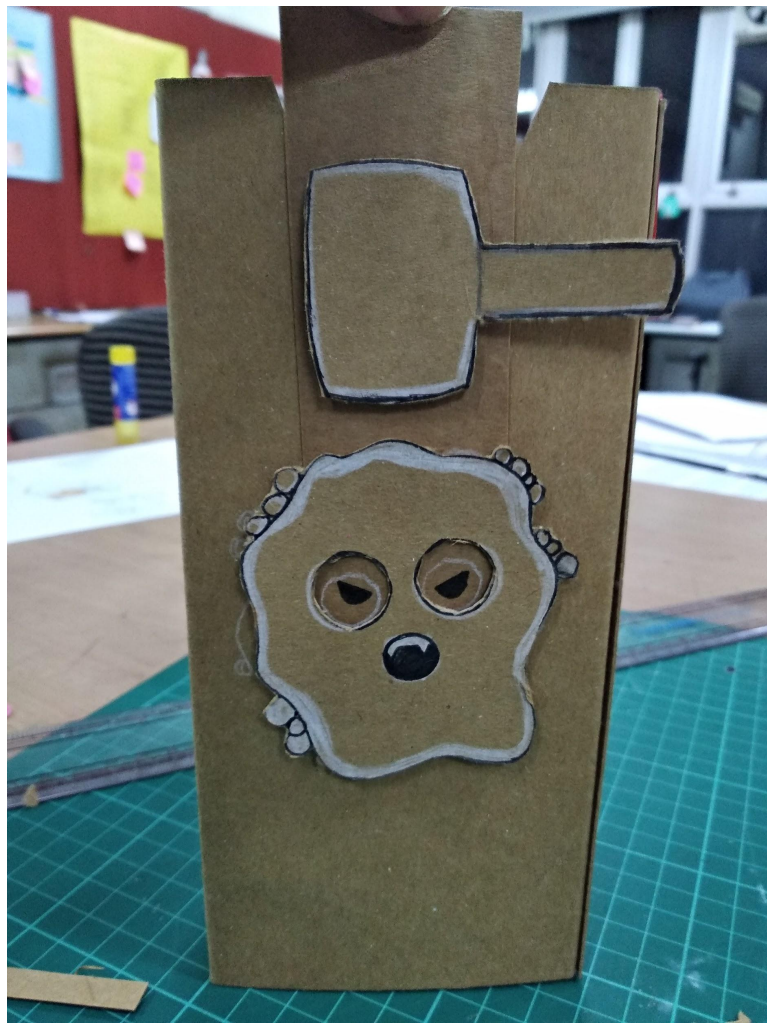
Final Ideas

Problem: Kids do not wash hands

Nudge Technique: Salience

Solution: Using soap sleeves to encourage using soaps



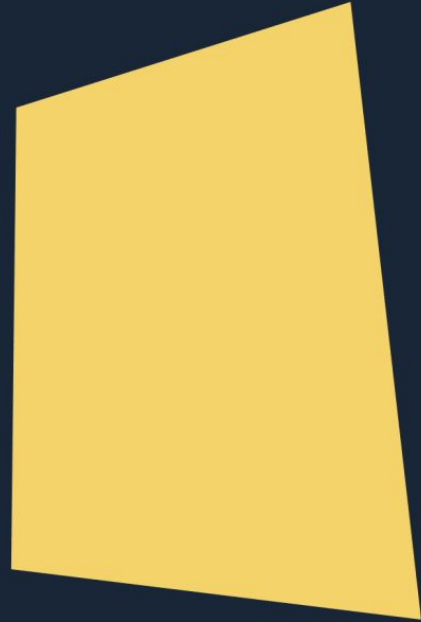


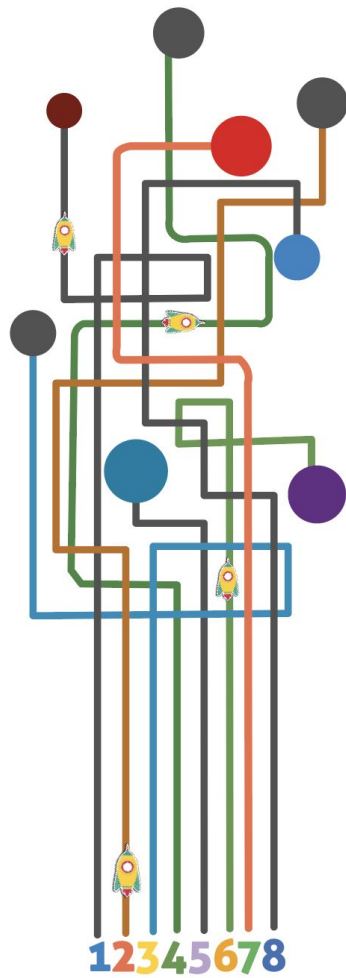
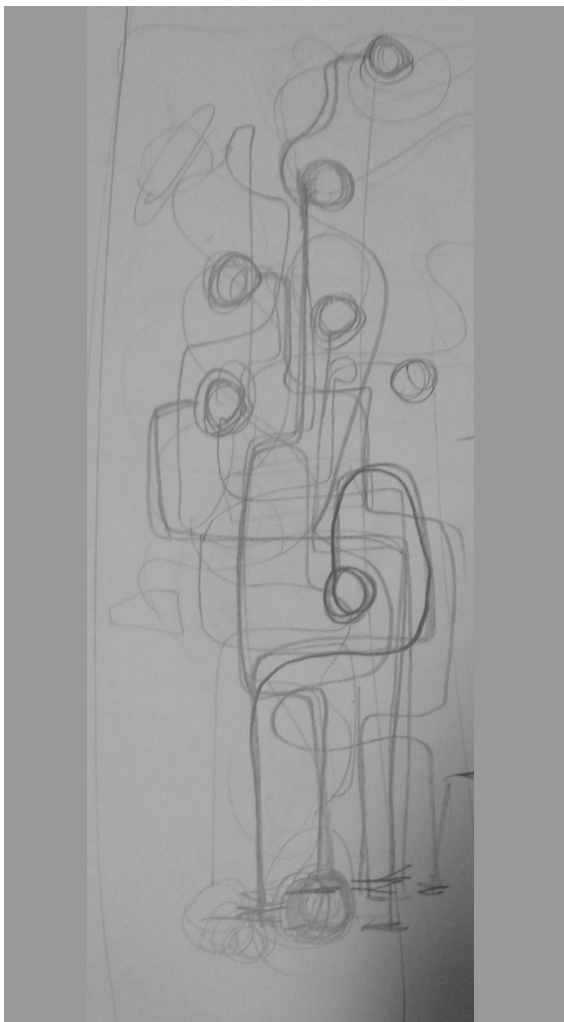
Final Ideas

Problem: Kids running in the hallways

Nudge Technique: Salience

Solution: Distracting running children by putting footprints on the ground.



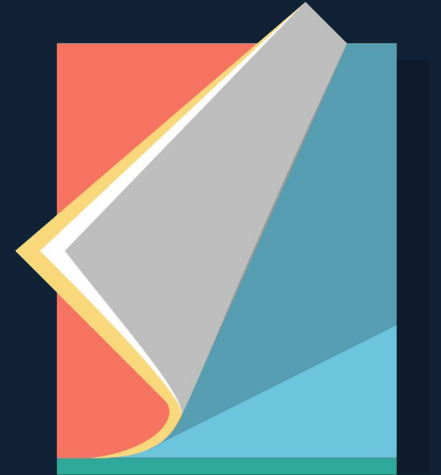


Final Ideas

Problem: Some children do not do their homework

Nudge Technique: Simplification

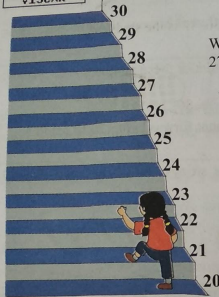
Solution: Using worksheets. By introducing worksheets, a child's notion of the amount of work he/she has to do will lessen. Using coloured papers could also remind the child of the pending homework he/she has.





The Ascending and Descending Order of Numbers

Part II

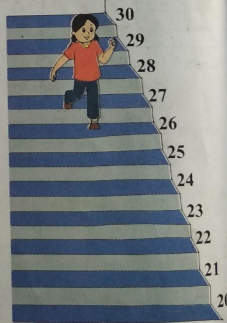


When climbing up the stairs, which stair, 27, 25 or 21,

will Sushma climb first ?

will Sushma reach next ?

will Sushma reach last ?



When climbing down the stairs, which stair 27, 25 or 21,

will Sushma be at first ?

will Sushma be at next ?

will Sushma be at last ?

When writing three numbers in ascending order, we write the smallest one first, the middle number next and the biggest one last.

When writing three numbers in the descending order, we write the biggest number first, the middle number next and the smallest one last.

Ascending ar

Exercise 1

1. Look at the

i) 20

Which

Which

Asce

Ex

Q1.

Ascending and Descending order

Name :

Roll no :

Exercise 1

Q1. Look at the numbers below and answer the questions.

i) 20 28 40

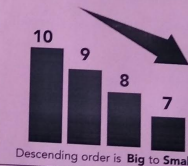
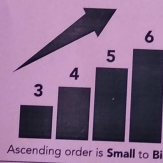
Which is the biggest number?

Which is the smallest number?

ii) 30 29 28

Which is the biggest number?

Which is the smallest number?



Exercise 2

Q2. Are the numbers below in ascending or descending order?

i) 10, 20, 30

ii) 80, 40, 20

iii) 23, 29, 35

iv) 45, 40, 35

Hint
Ascending order is small to big.
Descending order is big to small.

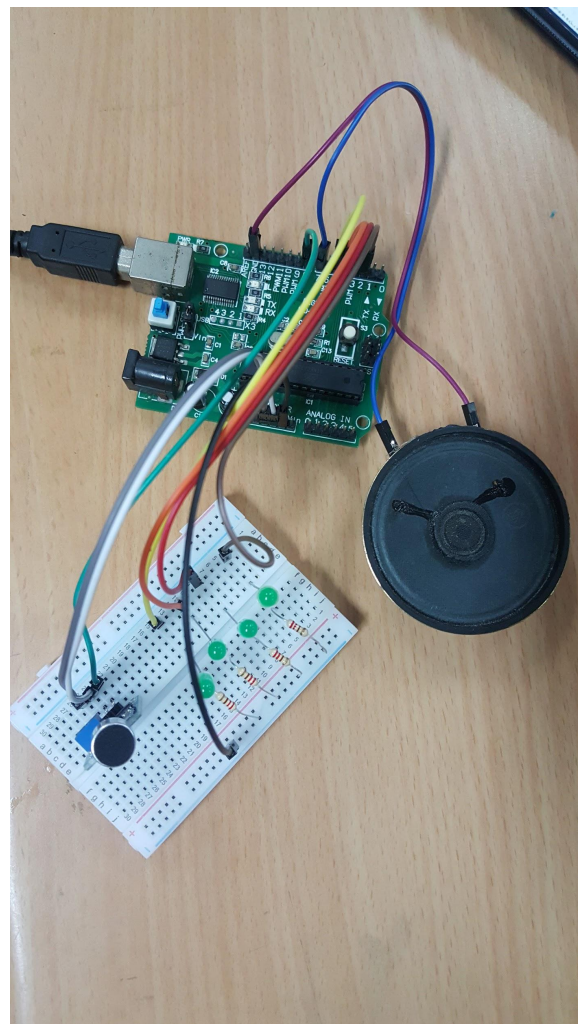
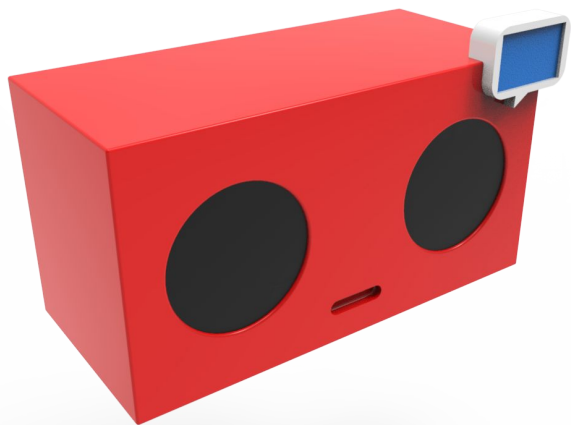
Final Ideas

Problem: A noisy classroom.

Nudge Technique: Salience, Reminder

Solution: In class when the level of noise reaches a certain point. This device would activate releasing a loud sound for a short duration.





Implementation

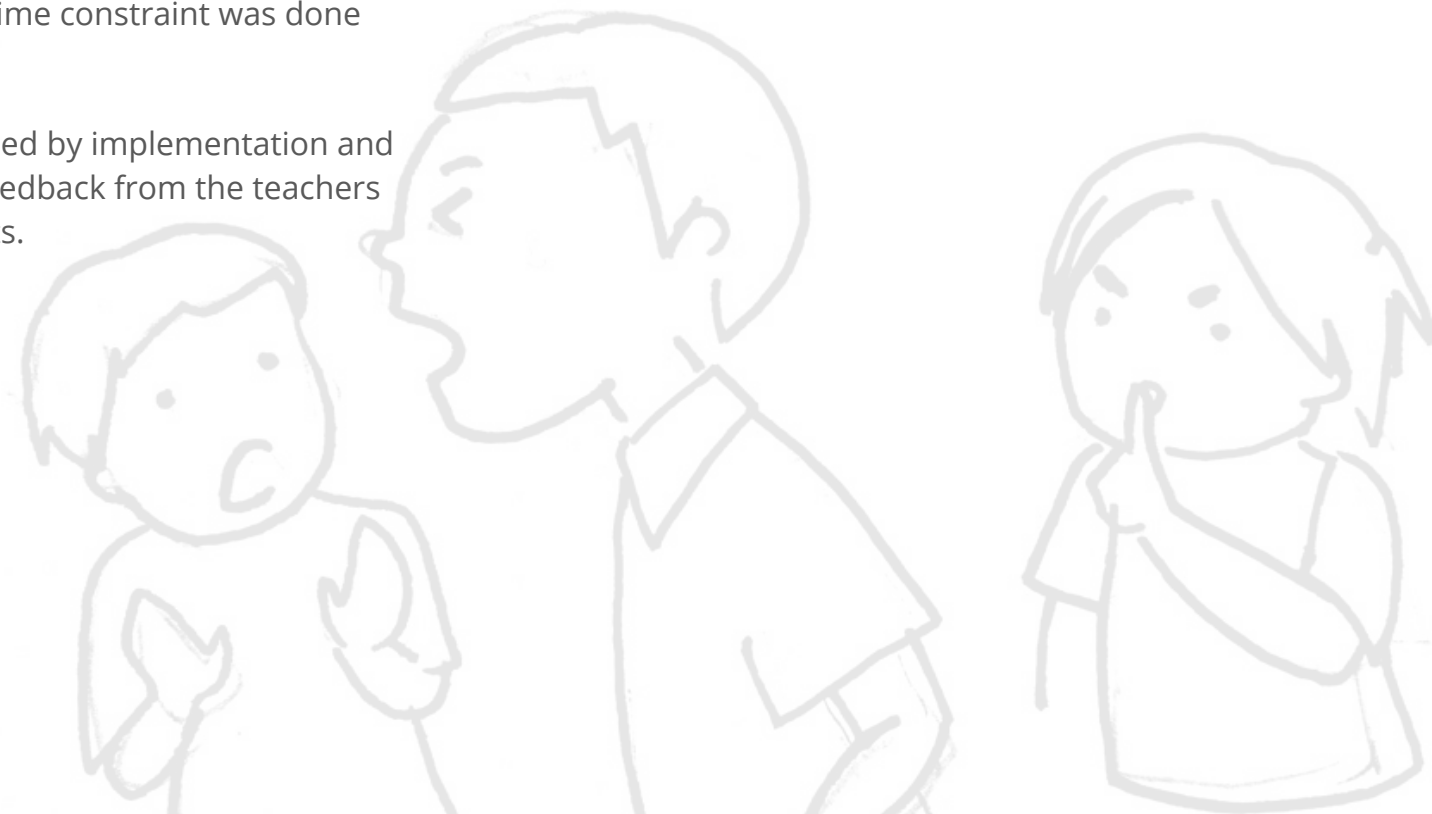
The solutions were brought to a school and implemented and later evaluated



Evaluation

The evaluation due to the time constraint was done over three days.

Each evaluation was assessed by implementation and then received qualitative feedback from the teachers who are the domain experts.



Evaluation

Soap Sleeves

Factors to be evaluated: Fun element, implementation feasibility, effectiveness.

How? Qualitative feedback from teachers, reaction of children.

Results

- Children had fun with the soap sleeve
- Teachers were wary about the novelty of the soap sleeve
- Headmaster wants to implement it if easily procurable



Evaluation

Tap cap

Factors to be evaluated: Fun element, implementation feasibility, effectiveness.

How? Qualitative feedback from teachers, reaction of children.

Results

- Teachers pointed out that the tap cap could be used to let children turn off the taps which they often won't do.
- The size constraints of different taps would be an issue
- Reaction from kids was positive



Evaluation

Worksheet

Factors to be evaluated: Homework turn in rate, effectiveness.

How? Qualitative feedback from teachers, number of homework turn in.

Results

- Feedback from teachers were positive
- More children turned in homework the following day
- Simplicity of homework motivated low performing students to complete homework
- Teacher suggested to use the worksheets for poorly performing students.
- Some worksheets were returned in poor condition



Evaluation

Floor puzzle

Factors to be evaluated: Fun factor, distraction

How? Qualitative feedback from teachers, reaction of students

Results

- Children were immediately drawn to the floor puzzle
- Teachers response was positive
- Concerns about vandalisms were raised.



Evaluation

Noise device

Factors to be evaluated: Discipline, effectiveness with or without teacher, with and without threat. Type of noise, irritability, annoyance.

Metrics: Qualitative feedback from teachers, Compliance of students.

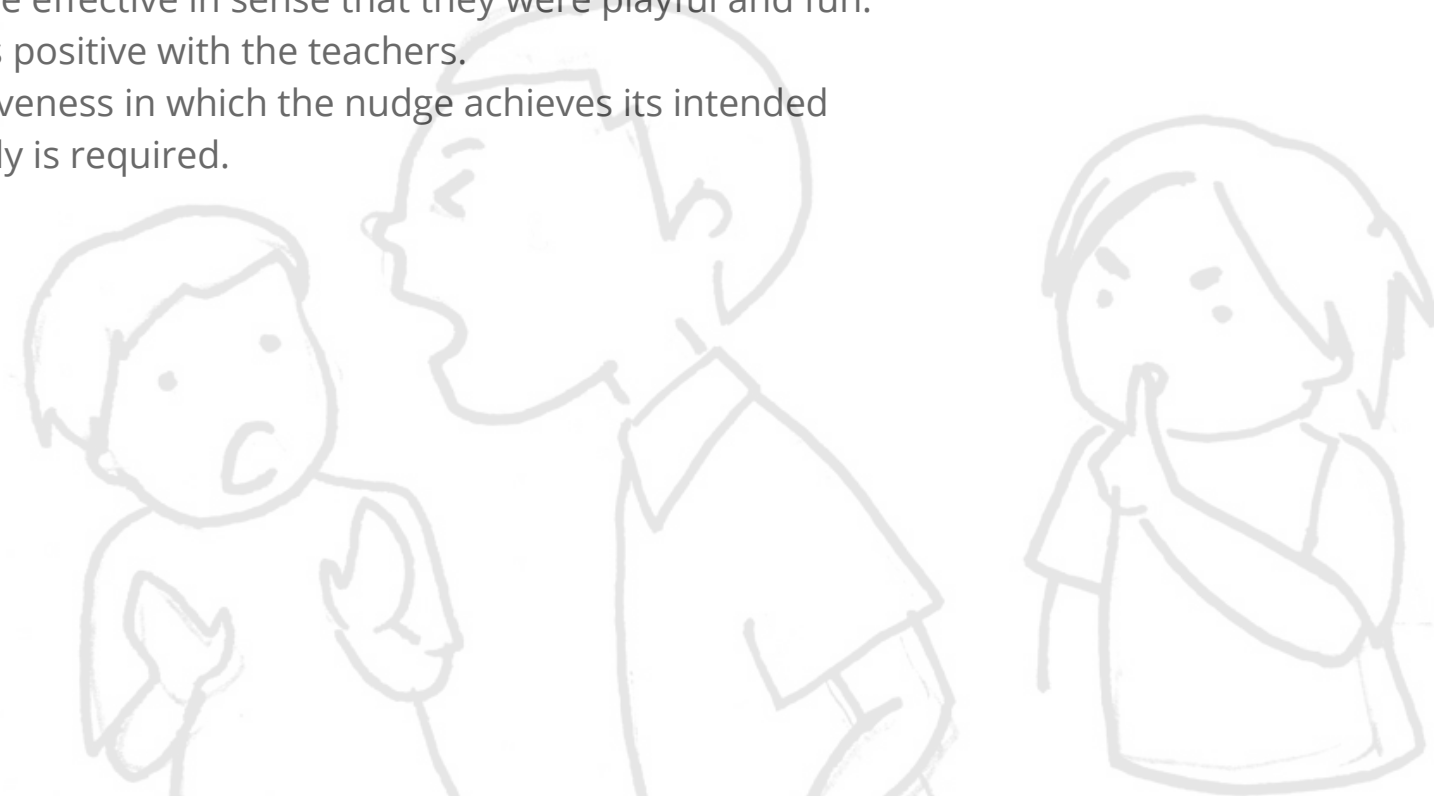
Results

- The device was effective for the initial testings
- Teachers commended it's effectiveness
- Device needs to be tested for a longer period
- Device works best when consequences are stated



Conclusion

- The solutions were effective in sense that they were playful and fun.
- The feedback was positive with the teachers.
- To test the effectiveness in which the nudge achieves its intended goal a longer study is required.



Three overlapping circles in the bottom right corner: a small red circle, a medium yellow circle, and a large orange circle.

Thank you