



JK LAKSHMIPAT UNIVERSITY
Institute of Design
NAAC 'A' Grade Accredited

Creating a Sensory-rich environment:

Design a sensory-rich wardrobe for the 4-6 yrs old kids that combines practical storage solutions with engaging and stimulating elements to enhance children's sensory experiences.

VOL. 1 of 2

Student : **Bhumika Sharma**

Sponsor : **Truly Sofas, Bangalore**

Mentor : **Abhishek Meena**

Programme :
Bachelor of Design (B.Des)
Product Design

THE 
**GRADUATION
PROJECT 2024**



The Evaluation Jury has recommended **Bhumika Sharma**
for graduation from **Institute of Design, JK LAKSHMIPAT UNIVERSITY**
with specialization in **Product Design**

Herewith, for the project titled Sensory wardrobe for kids
on fulfillment of requirements by

Jury Chairman

Neeraj Kumar

Neeraj Kumar

Jury Member

Pritam Singh

Pritam Singh

Jury Member

Abhimanyu Nohwar

Abhimanyu

Remarks, if any.

Be courageous. Expand the brief. Challenge your clients to think bigger!

Dean, Institute of Design
JK Lakshmipat University

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Project In A Nutshell

Truly Sofas, a startup furniture brand based in Bangalore that focuses on providing high-quality, designer sofas and seating solutions. The brand is known for its craftsmanship, durability, and modern designs, catering primarily to a niche market that values aesthetics and quality.

Currently, Truly Sofas is in the process of launching a kids furniture range to add to their current product portfolio of the bedroom, living room and storage furniture solutions

This project involves developing kids furniture for experience and not just utility. A range that keeps children hooked and parents happy. A factor of premium quality and aesthetics. A strive towards developing high quality solutions that care for their healthy life

The outcome of this project was driven by the curiosity to understand kids better, to provide them with the best possible environment to play and work in. An intense process of questioning each design decision the back and forth between my designs, customer's needs, and Truly Sofas requirements have shaped this project.

The final outcome being a wardrobe understands a child's needs and the parents requirements after the abundant changes, iterations, explorations and of course the convincing. More than the outcome one must experience the journey and for me, this journey has been an opportunity to work on a content that strongly believed in a need for sensory rich environment.

I knew that the users are the key to good design but it is only when working in the professional world out there made me realize the importance of keeping this in mind at every single point of step. It is due to this that makes a design process everything but linear.

As once said by Junter S. Trompson 'Anything that gets your blood racing is worth doing', which for me was taking up this graduation project and the challenges that came with it. Believe at the end of this project I have grown as a designer and as an individual.

JK Lakshmipat University



Bird eye view of JKLU

JK Lakshmipat University (JKLU) is a private university located in Jaipur, Rajasthan, established in 2011 by the JK Organisation, which is known for its significant presence in industries like cement, paper, and tires. The university offers a wide range of academic programs, including undergraduate, postgraduate, and PhD courses, with a strong emphasis on engineering, design, and management disciplines. JKLU's curriculum is designed to be multidisciplinary, blending technical and management education with liberal arts, ensuring that students receive a well-rounded education.

The university is structured into three main schools: the Institute of Engineering & Technology (IET), the Institute of Management (IM), and the Institute of Design (ID), each focusing on providing specialized education in their respective fields. JKLU places a strong emphasis on experiential learning, integrating internships, live projects, and industry interactions into its programs to ensure that students gain practical, real-world experience alongside their academic studies.

Additionally, JKLU has established international collaborations with several global institutions, providing students with opportunities for student exchange programs, joint research, and exposure to global best practices. The university also offers a vibrant campus life, with numerous clubs, cultural events, and student-led initiatives that contribute to the holistic development of its students.

JKLU's vision is to create an educational institution that fosters innovation, critical thinking, and entrepreneurship, preparing students to become leaders in their respective fields. Through its mission, JKLU aims to build a nurturing environment that promotes intellectual growth and equips students with the skills and knowledge needed to tackle real-world challenges.

Sponser



**TRULY
SOFAS**

Handcrafted Masterpieces

Truly Sofas is a startup furniture brand based in Bangalore that focuses on providing high-quality, designer sofas and seating solutions. The brand is known for its craftsmanship, durability, and modern designs, catering primarily to a niche market that values aesthetics and quality.

Services Offered

Customized
furniture solutions



High-Quality
Craftsmanship



Home Delivery and
Installation



Eco-Friendly
Initiatives



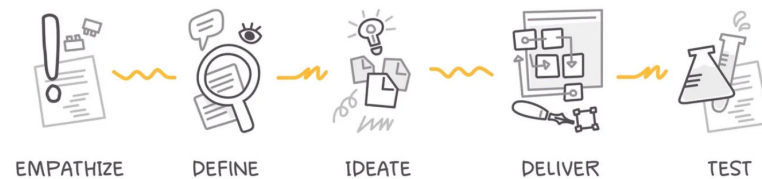
Project Brief And Scope

A project brief serves as a student's primary source of direction before starting their graduation project. This is what aids a student in choosing which company to work with. Four main subjects were discussed in the first meeting with Truly Sofas: expanding the current furniture line, kids furniture (a new category), recycling corrugated trash from furniture packaging and customer returns of linens, and any other issue of interest. When I joined, Truly Sofas had chosen to launch with the kids furniture category, which just so happened to be a niche that interested me personally. Consequently, the task assigned was to create a kids' furniture section for Truly Sofas.

In terms of children's furniture, the brief was interpreted, thought, and imagination-based. This was a fantastic chance for design. In order to help Truly Sofas grow its customer base and product line, the initiative sought to penetrate a furniture market that would benefit from its values and business strategy.

Children grow quickly, which is one of the main reasons parents are hesitant to purchase children's furniture because it can't keep up. This is where the renting model comes in handy because the furniture goes out as soon as the child outgrows it. Furthermore, as consumers' lives change in terms of how and what they spend, the consumer market is attempting to keep up. Why not up the pace for the children's market? Although beds, study tables, and wardrobes are not particularly new items of furniture, the Indian market has to provide youngsters with furniture that is both practical and visually pleasing due to modern needs.

Methodology



There is always a procedure that comes before the product. A student is guided by the design process throughout the duration of the assignment. Each stage of the design process is essential in illuminating the path ahead, be it in terms of conceptualization, deductions, or conclusions. The procedures that were used in this specific project at really couches are listed below.

1) **Generate ideas** that could be taken forward. Once a pool of ideas that the team felt could be taken forward called for a discussion with the design head. This ensured that the team was aligned with the goals of Truly sofas and the idea had a potential.

2) **A design brief** was set in place so that the research direction can be defined. The second part of the research was **user study**, this addressed the identification of the potential user needs and wants, the users being the parents and the kids. This included multiple interviews with the mothers. Once all of the research information was synthesized the final design brief was defined.

3) With the **final brief** set in place initial **conceptualization** was done which was then initially validated with the employees who fit our target group. This called for a checkpoint for the design team to **validate the concepts** with the Marketing head. This ensured that everyone is updated with the new product line and the design team gets a feedback on the direction taken.

4) From the **feedback** and concerns raised, **refinements** and fine-tuning in the designs took place. This led to the generation of **final concept**. This then needed design detailing which included joineries, material, and form. With these details in place, a cost estimation was derived and technical drawings were made.

5) Once the drawings were ready for production, a meeting was called with the sourcing team to explain the products so they could plan their procurement. The drawings were then sent for **prototyping** which took about a month's time to happen. Once the prototypes were received a rigorous **validation** process was done. The team had setup the items of furniture at residential societies where feedback was taken from the parents to understand the flaws or user difficulties with the products. This was a great way of knowing how well our products could perform and also gather more insights of parents regarding "kids furniture"

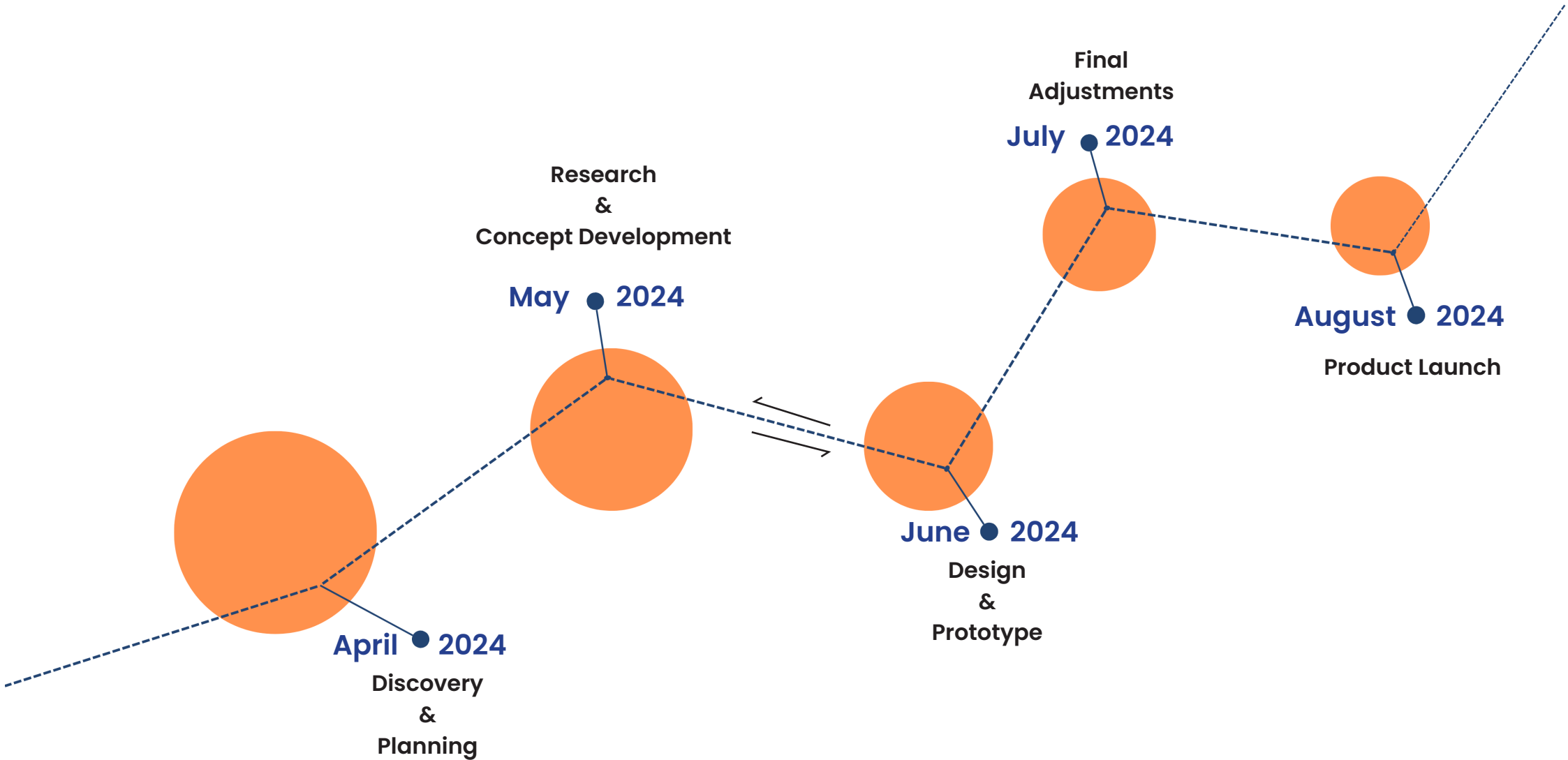
6) After a rigorous product validation, **improvements** were made on the basis of potential user recommendations and the final quote was requested from the vendor.

7) The design team handed over all the drawings to the sourcing team for them to place the final orders. Once the **purchase order** (PO) was released, a 'go to market' (GTM) meeting was called for. Here all the teams came together to discuss their department related inputs for the launch

8) A major part of Furlenco's furniture is to do with assembly, as the company takes responsibility for assembling the furniture at the customer's place. So, a meeting with the warehouse team was planned where they were briefed about the assembly procedures. It was very vital that a **knowledge transfer meeting** happened as wrong fixing meant all of the work done prior to this would have gone for a toss.

9) The last step was to launch the range. As the launch has just happened this final step will be a step in the future Real-time feedback after a month's usage of the furniture will be gathered and concluded to guide the company for a way forward.

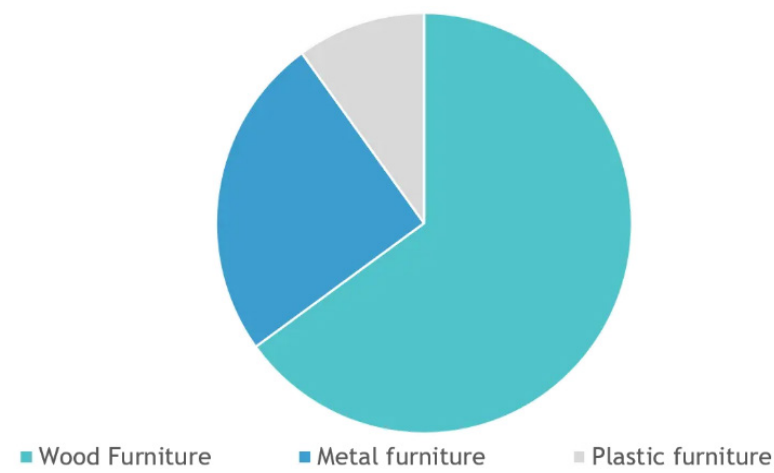
Timeline



Understanding Truly Sofas

The Furniture Market

Over the next five years, the organized furniture industry is expected to experience significant growth, characterized by a steady increase. This growth can be attributed to shifting lifestyles and rising disposable incomes, which are driving a greater demand for residential furniture. Additionally, the surge in infrastructure development in real estate and tourism is set to boost business in the hospitality sector, consequently increasing the demand for commercial furniture. The expansion of the organized furniture sector will be fueled by streamlined processes in distribution and sales, along with the factors mentioned earlier.



India Office Furniture Market

Market Size

CAGR >10%



Truly Sofas Customer Segment

The company deals with sofas and seating furniture in Karnataka. Currently, it has offerings in the living room, bedroom and dining room. The target market is majorly limited to urban millennial presently. Overly 23 to 34 years old with an income of Rs.50,000 to Rs.1,00,000 who live in semi-furnished house or 2BHK are their major attractions.



GENZ PEEP

DEMOGRAPHIC

Age: 22-27

City: Bangalore

Marital status: Single

INTERESTS

travelling, shopping, gamers, sports fan,
gadget freaks

CONTENT THEY READ ON GOOGLE

house for rent, furniture, home furnishing, iphone7,
ipad, concerts, full moon parties



LOVE BUDDIES

DEMOGRAPHIC

Age: 26-34

City: Bangalore and Mysore

Marital status: Married

INTERESTS

Auto and vehicles(Hyundai and Porsche), investing,
insurance, Beaches & island(travel)

CONTENT THEY READ ON GOOGLE

modern furniture, modern sofa, living room
furniture, house for rent



HOME MAKER

DEMOGRAPHIC

Age: 33-45

City: Bangalore, Chennai

Marital status: Married

INTERESTS

homemaking, interior decor, fitness,
home lovers, dogs

CONTENT THEY READ ON GOOGLE

Audi, lounge, iphone, recliner, home furniture,
balcony furniture

Pricing Model

TRULY
SOFAS

Handcrafted Masterpieces

HOME COLLECTIONS BUILD CUSTOMISE COLOR





THE TRULY AETHER CHESTER SOFA

Save ₹28099
₹59500~~87599~~

The classic dining chair has a pure brass cap handcrafted by our master craftsmen. Truly Sofas is driven by the idea of people experiencing the best and authentic quality of furniture. Multiple components, some for solid wood understructure, some for getting that high density foam which doesn't sink in, and some for the final finishing are bel...

Read more

Color:

Seat option:

Firm

Sofa legs option:

Wooden

TRULY
SOFAS

Handcrafted Masterpieces

HOME COLLECTIONS BUILD CUSTOMISE COLOR





TRULY RACHEL SOFA DENIM FABRIC

Save ₹30000
₹49500~~79500~~

Crafted with Pure teak finish base, The Rachel sofa is a must for every abode. Comfort and beauty begins with the seasoned and solid wood understructure, with high density and sturdy foam. The Truly Rachel sofa is a pure epitome of sleeker and modern look for your house. The beautiful denim soft fabric is soft and comfortable as a cloud to sit on...

Read more

Color:

Seat option:

Firm

Sofa legs option:

Wooden

TRULY
SOFAS

Handcrafted Masterpieces

HOME COLLECTIONS BUILD CUSTOMISE COLOR





TRULY PLUSH ACCENT CHAIR RICH VELVET

Save ₹13500
₹28500~~42000~~

For us color is both a science and an art. It is modern and traditional. It is bold and discreet. For us color is contrast. It is dyes and pigments. Color is our passion. The chair is handcrafted by our master craftsmen and every detail is been taken care of with extra detail and precision. For us color is both a science and an art. It is modern and...

Read more

Color:

Seat option:

Firm

Sofa legs option:

Wooden

TRULY
SOFAS

Handcrafted Masterpieces

HOME COLLECTIONS BUILD CUSTOMISE COLOR





THE TRULY DINING TEAK CHAIR

Save ₹7000
₹12500~~19500~~

Teak base handcrafted dining chair. Truly Sofas is driven by the idea of people experiencing the best and authentic quality of furniture. Multiple components, some for solid wood understructure, some for getting that high density foam which doesn't sink in, and some for the final finishing are being paid attention to for that final Truly sofa...

Read more

Color:

Seat option:

Firm

Sofa legs option:

Wooden

Vision

Create a furniture collection that caters to the practical requirements of parents while simultaneously appealing to the playful interests of children.

Understanding Kids Furniture

Kid's Furniture Market

With the initial brief in place about coming up with role play furniture for kids, the first phase of research began. A series of kids brands were looked at, international and national. This market study was done to understand what is happening in the kid's furniture market in terms of function, aesthetics, and popularity. It provided insights on product innovation and variations. At this stage, there were no defined guidelines for the form language as this product range had the liberty to have its own unique language. Hence, attention was paid to analyze the form language of different brands out there.

Godrej

Godrej's Ispace range is a complete room unit that comes in a lot of different options. These products are mostly made out of metal to make them lighter, cheaper and long lasting but give a very raw feel to the furniture. The colour pallet is primary which has bright shades. The products seem to be a combination of bed, study, and storage which might make it difficult to buy or discard according to personal needs.



IKEA

Ikea is a brand that a lot of parents consider the benchmark. It has a wide range of furniture from storage to sleeping solutions. Materials used range from honeycomb boards to beech wood. Ikea has identified that different age groups have different needs and it is evident in their product range. The colour palette is subtle and mostly left to its natural wooden finish.



FLEXA

Flexa a Scandinavian company which is an epitome of kid's furniture. From their furniture to furnishings, a lot of attention has been paid to the themes and details. Like Ikea, their colour palette is also subtle but with a pop of colours here and there can be seen. Flexa also has understood the need based on age groups and creates a safe and stimulating environment with its products. The beauty of the products lies in their simplicity and quality as well as the fact that they want to encourage play and creativity with their furniture.



Nilkamal

Nilkamal's plastic furniture range for kids has chairs, storage, and study. The colour pallet is primary which has bright shades. The advantage with plastic range is that it can be used indoors as well as outdoors. However, the choices are very limited in aesthetics as well as furniture category.



Takeaway And Synthesis

I conducted my first study in three stages: reading articles on kids furniture, examining different brands, and reviewing Truly Sofas's initial research report. These key insights provide an overview of the data gathered from these areas.

The company's analysis revealed that there is a significant demand for kids furniture since parents are eager to design unique spaces for their children. This is the most significant finding. They are also prepared to spend a little bit extra on this type of furniture because it is regarded as specialty furniture.

Indian consumers need durable furniture, and they believe that wood is the only material that can meet their needs. They cannot, therefore, relate to the idea that they would purchase furniture and then throw it away after three years. The majority of parents don't buy children's furniture because, based on the comments gathered, their children outgrow it rapidly.

From the brand analysis done one pattern that I could notice is that most of the furniture associated with kids are bright and gaudy visually which isn't the case with the international brands. I feel that maintaining a colourful look in kids furniture is appealing, however, they do not need to be so vibrant as they take away the premium factor. This could be one reason that a lot of parents keep Ikea as the benchmark for kids furniture. Also, going through the catalogue of different brands it was apparent that international brands had a wider range of permutations and combinations to choose from.

The kid's furniture is too generalized in India. They aren't user-centric. The furniture has stickers of numbers and animals but it is advertised for teens also. There is no distinction between age groups. This I feel is a gap in the market that can be taken up by Truly Sofas.

One has to address the fact that in terms of cultural context the requirements are different in India. This includes factors like the size of the house, the functions around a particular furniture as well as the colours. A factor like compact spaces has been addressed well by the Godrej Ispace range as they are all compact solutions.

To conclude, an ideal way forward for this project would be to consider kids as the center of design in respect to their needs according to their age. As well as making it suitable for the Indian household context.

Social Context

Smaller families more disposable income, growing influence of children in decision making and increasing mobility hence increases awareness of the parents for brands like IKEA.

Market Context

There are no large brands in the market for kids furniture, only a several niche offerings are available in the retail outlets and on the internet. Parents are skeptical to make an investment as the kids grow out of the furniture very quickly.



Moment Of Epiphany!

While doing the research on kids market it suddenly struck me that I had studied cognitive design in my previous semester. So, I proposed an idea of creating kids furniture based on sensory development to my mentor who quite willingly gave a heads up for it. Hence, the research was then directed towards having an in-depth understanding of the sensory environment and its outcomes.

Understanding Growing Kids



Child Development Areas

The human brain is wired for learning, and learning begins at birth. It is about how a child's development, focus, and capacity for learning are affected by a well-directed place. The early years are crucial for early learning, according to recent research on early childhood investments, which have demonstrated amazing results.

Early children's emotional, physical, cognitive, and social development directly impacts their total growth and the adult they will become. Early life experiences are crucial for children's brain development, according to neuroscience study. It is crucial to comprehend the importance of investing in young children. This brings the question, what exactly are these four domains of development?



Physical Development

At six years old, children develop enhanced gross motor skills, enabling them to perform complex physical activities and improve fine motor skills, enabling precision in hand and finger movements for various



Cognitive Development

Children's language development is significant, with increased vocabulary, complex sentence formation, and multi-step instructions. They improve memory, attention, and symbolic thought, laying the groundwork for literacy skills like reading and writing.



Social Development

Play is vital for social development, fostering cooperative skills, creativity, and problem-solving. It also helps children develop friendships, learn social norms, and observe adults and peers.



Emotional Development

Children develop self-regulation, emotion management, coping mechanisms, empathy, self-concept, and self-esteem, fostering healthy social interactions and promoting self-worth and validation from adults.

The early years of human development
establish the basic architecture and
function of the brain

- J Fraser Mustard, Founding Chairman, Council for Early Child Development, Toronto

How Does It Work?

These four areas of development are based on minor inputs from the surroundings and the way our senses integrate into a response to those inputs. For one to understand how the senses and the development areas correlate it is imperative that we understand a few technical terms.

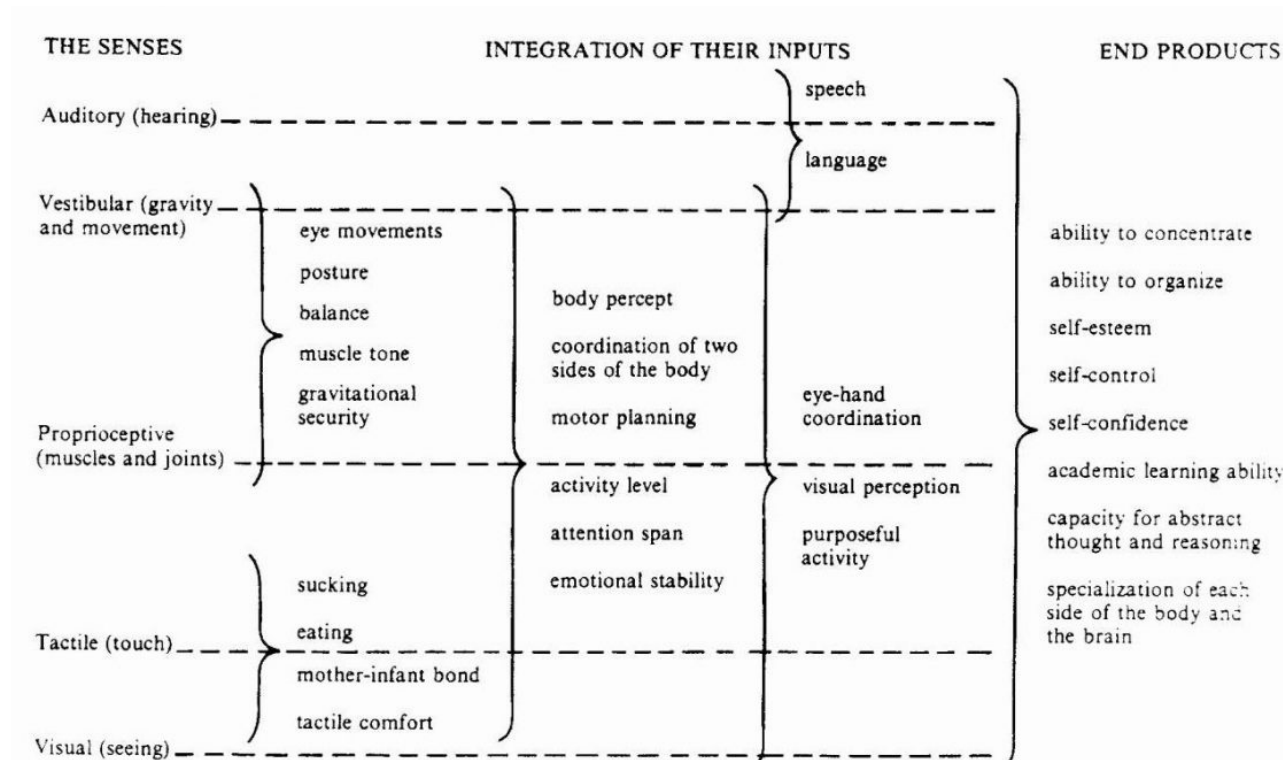
Sensory integration

Sensory integration is defined as ‘neurological process that organizes our own senses and those of the environment so that we can effectively use our body” (Ayres, A. Jean). For this, the brain constantly registers, selects, interprets, compares and associates sensory information.

Sensory processing

Sensory processing allows the brain to receive, interpret and organize input from all of the active senses at a given time. If the sensory information is incorrect it gives an incorrect reaction or behaviour.

The chart shows how the basic sensory inputs help to build complex skills for a child. It is due to these minor inputs of sensitization that they build complex neural pathways.



For instance, when we look at how the baby learns to roll, a series of simple sensory processes known as the safe sensations happen in their day-to-day lives. Initially, the baby learns to hold their head up while still in the womb.

Once born, they see colorful toys lying in reach, which triggers their vision and perception. Depending on the toy's position, the baby may twist and turn to reach (proprioception). The brain then sends a signal to the movement receptors (vestibular) and body sense (proprioception)

The brain then sends a signal to the movement receptors (vestibular) and body sense (proprioception) that there is a need to acquire a new skill, hence the muscles generate enough force to roll the body over. In initial attempts, the baby won't get distracted by the other toys, and once it becomes more confident, the other processes start.

Takeaway And Synthesis

So far an understanding of threshold personalities and sensory processing has been gathered. We now understand why atypical children i.e. suffering from ADHD, behave the way they do. This begs the question how is it relevant to children without disabilities?

Sensory rich environment is defined as an environment that provides ample amount of sensory stimulation via sight, sound, texture and smell. Currently these environments are usually for therapeutic areas. However, sensory experiences help brain development for each and every child. Research has shown that there are trillions of

unprogrammed connection waiting to be connected in the brain. These connections are known as neural pathways which connect regions within the brain to one another. By stimulating a child's senses the brain is engaged in creating neural pathways which assists to create further learning.

Educational spaces and home learning spaces currently do not provide sensorimotor (having or involving both sensory and motor functions or pathways) situations during classes: They expect a certain kind of discipline from all kids: seated, still, quiet and without distractions. They also believe that students learn best in silent, motionless

environment. It is true for some but not for all, every student is unique and requires a different degree of sensory input to function successfully. Hence, sensory rich environment shouldn't be restricted to extremities (refer to Dunn's model).

Think of sensory environment
as a food for the brain

–Suzanne Gainsley, Expert on early childhood

Case Studies

Tink Things

All of the furnishings in the Tink Things range is designed to help kids develop their sensory intelligence. This product line is a part of The Fish and Bennussi. They think that learning, memory, focus, and growth and development are all significantly impacted by sensory intelligence. Their collection was motivated by their knowledge of the many sensory needs that each youngster has. One of my main sources of inspiration for this project was reading about their thinking process and comprehension of how to translate a subject like this into furniture. I think these concepts are brilliantly stated and transferred to a materialistic experience within the framework of sensory intelligence.



Mia Chair

This chair has a non fixed fabric seat which allows gentle rocking and aids concentration for children who are passive in their behavioral response. If the child is active the cocoon can be pulled up to isolate from the environment. Stating the possible scenario doesn't mean it can't be used by others.



Ika Chair

The swinging soft cushion allows constant rocking and bouncing which has a positive influence on learning. The primary aim of this chair is to boost concentration and memory ability amongst kids with its constant motion. Never the less it's always fun swinging, so everyone can use it!



Kufi Desk

An adjustable worktable which has a shorter viewing angle for healthier posture while reading, writing and drawing. The panel also serves as a write and erase white-board, storage, a book stand or whatever you can think of. In addition to this, it completes the two chair set.



Creachair

Creachair is an A design award winner studio project put up on Behance by Oblikus.

The designer describes this furniture as a play buddy to help children develop creativity, imagination, motor and tactile skills. It calls for children to communicate their emotions and start being creative at a younger age

Creachairs are an open call for a playful collaboration and exchanging ideas between kids not just by themselves. This helps in emotional development as it helps to introduce series of different and more complex emotions. This is done by giving them a variety of eye patches and leg covers. With the abundant combination possibilities, they can create the character they like.

Another beauty of this product is that it lets them experience many different tactile sensations and ways to co-create a play buddy using velcro, zippers, buttons, clip buttons and laces. These different actions help build fine motor skills in young children.

The choice of a different texture of materials helps tactile stimulation to be more sensational. The whole experience can be enriched with stuffings, outstanding textile designs, and unusual materials.

It is a great product that supports sensory learning and it keeps safety at the center of design as well. It is designed to last and be reused which sends an important message about product sustainability.





Montessori

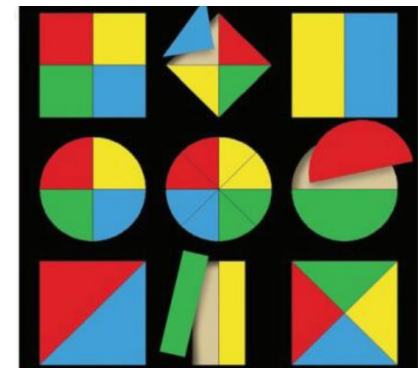
Montessori is a method education developed by Maria Montessori. This method of education is a child-centric educational approach..

The main aim of this educational practice is to let a child take a path of self-discovery and be able to work independently. Therefore the teachers introduce a variety of materials and tools to the children and then lets them choose whatever they want to learn which ultimately leads them to master a concept that they have chosen to work with.

A Montessori classroom has a typical set up of open spaces and wooden furniture. The setup has a specially prepared environment which is complete with Montessori equipment and a multi age grouping of children. The multi age grouping builds the important social learning and character skills for children. They believe that peer cooperation and peer tutoring gives a sense of achievement and boost self esteem in both the older and younger child.

The equipment used to teach have a unique quality of engaging senses to teach. The integration of sound to teach numbers, sand paper (texture) to teach letters give an experiential learning and therefore provide a better learning experience.

There are a lot of kindergartens currently which follow this system and are motivated to create a better learning environment where a child can research, explore and capitalizing on his interest.





Takeaway And Synthesis

During the time of research about sensory intelligence all the theories, notions and concept made a lot of sense to me. I was able to imagine a translation of these theoretical ideas into design concepts. This was due to the fact that had been working on a similar path for quite some time. However, other people around me were not able to see a clear picture of this translation. This is where I thought the case studies will help me build a stronger case

After going through these projects two things were common between all of these projects, playfulness and interaction, believe these two factors should be a core essence of kids furniture. Interaction promoting furniture always create a great ground for role play, theatre, communication building, all the things that are a part of social and cognitive development. Furniture like The Woken

Up bed is a great example of this. Kids love having their friends over especially when they have things to show

Playfulness in furniture keeps them interesting for children as they always get bored too quickly. Creachair is a perfect example of this! The opportunity to create different characters every time will definitely make the stool more interesting to play with. In addition to this, the furniture addresses the importance of tactility, the need to be exposed to different textures to stimulate senses. This is something that is definitely missing In today's world with all the toys moving towards the plastic material

Subconsciously all of us know someone or the other who keeps on shaking their leg or twitching their fingers while they are working. These are all

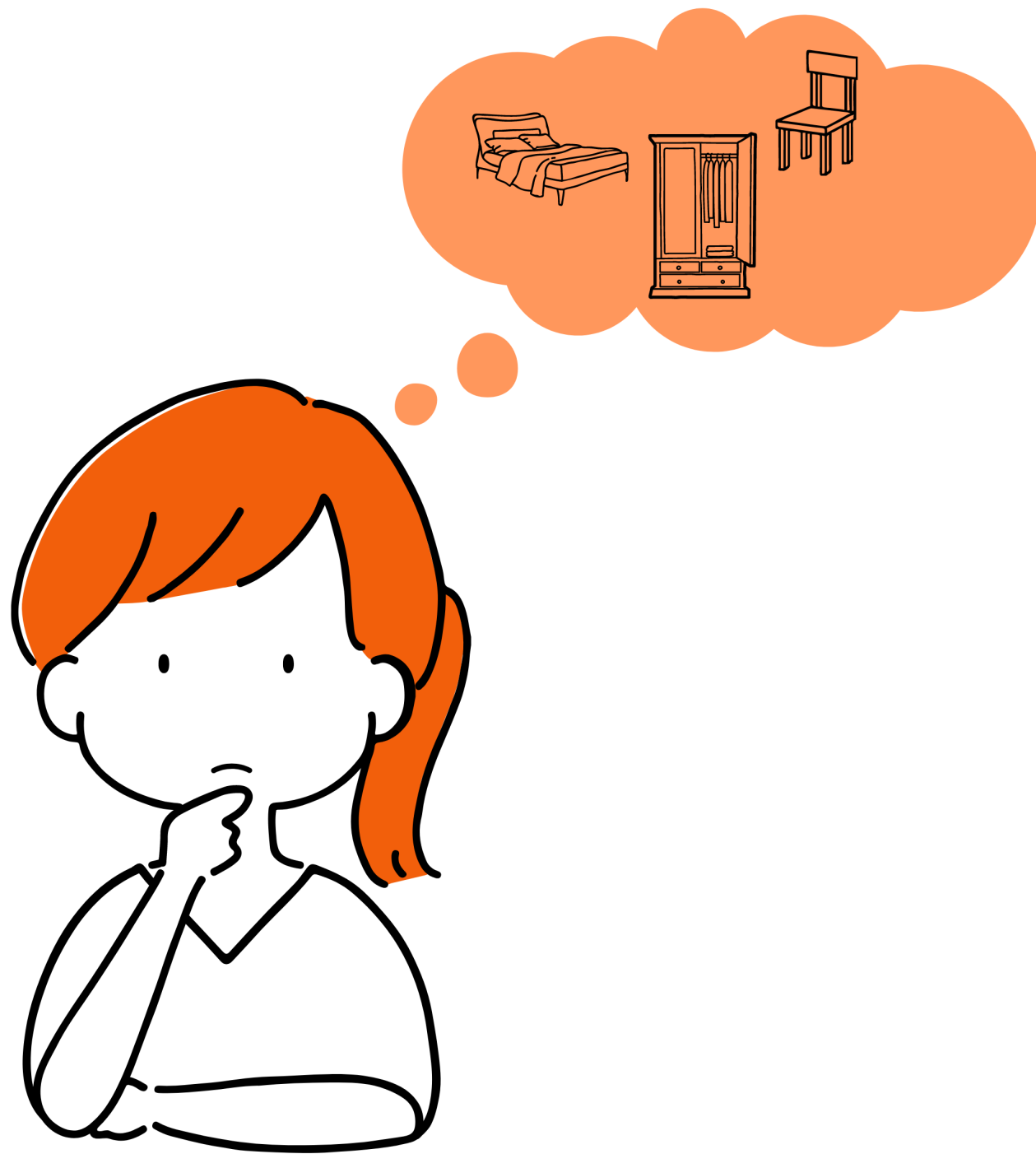
These are all methods of creating a rhythm to help concentrate. Tink Things furniture collection had just done that but with giving stimuli to the furniture itself and making it interesting.

Out of all of the case studies, one case study was different in its implementation. It was the Montessori education system which has understood the need to learn by doing and incorporated in its teaching with the creation of specialized equipment. These equipment demonstrate how sensory experiences can be put into simplest of things.

With this understanding in place and a pool of inspiration, time had come to start ideating for the furniture that make the change for how kids furniture is perceived to be.

Design is thinking
made visible

–Saul Bass, Graphic designer



New Brief

A collection of Playroom for ages 4 to 6 years old that gives them a sensory rich environment by targeting their sensory integration.

Why A Playroom?

A playroom is just not a playroom anymore in a usual household. It is not only meant for playing anymore. The room has become a place where numerous activities take place such as sleeping, reading, playing games, conversation, work, music etc.

For children whose rooms are specially designed constitute an inconsiderable part of their environment. In their room, they go to bed and wake up; they spend some part of everyday.

Their rooms determine the things they see and look for amusement. Therefore, it is obvious that their rooms have an effect on their present and subsequent behavior.

Playroom Activities



Sleeping



Playing



Studying

Playroom Environment



Autonomy

Autonomy translates to self governing in this case taking charge of things and their bodies physically as well. This aids in boosting self-esteem.



Safety

Safety should be considered in context of the equipment. It might work in one place and might not in the other.



Privacy

Kids need places to watch from and to hold back in, places in which to hide and seek things and places which enable them to pause and reflect.

Target Group

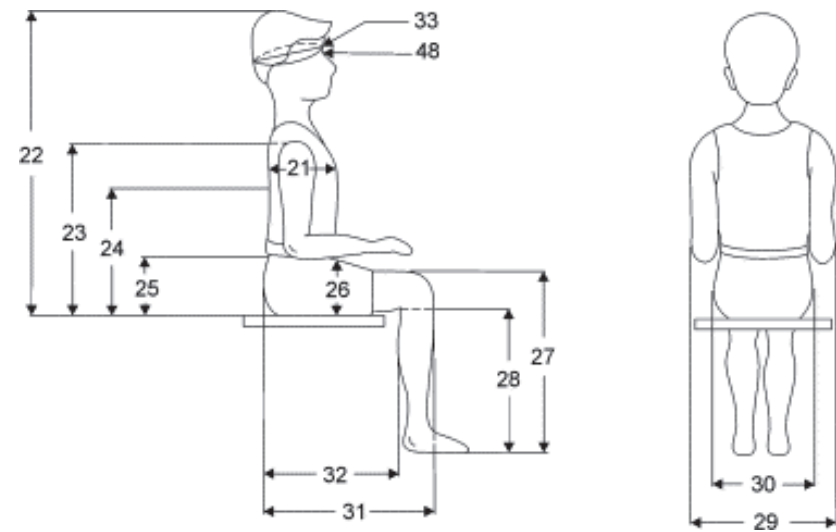
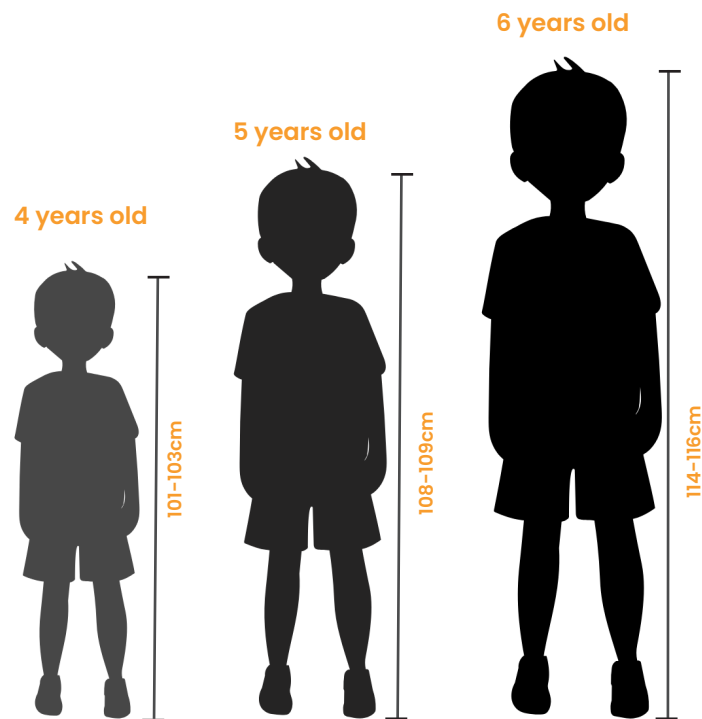
4 years old

5 years old

6 years old

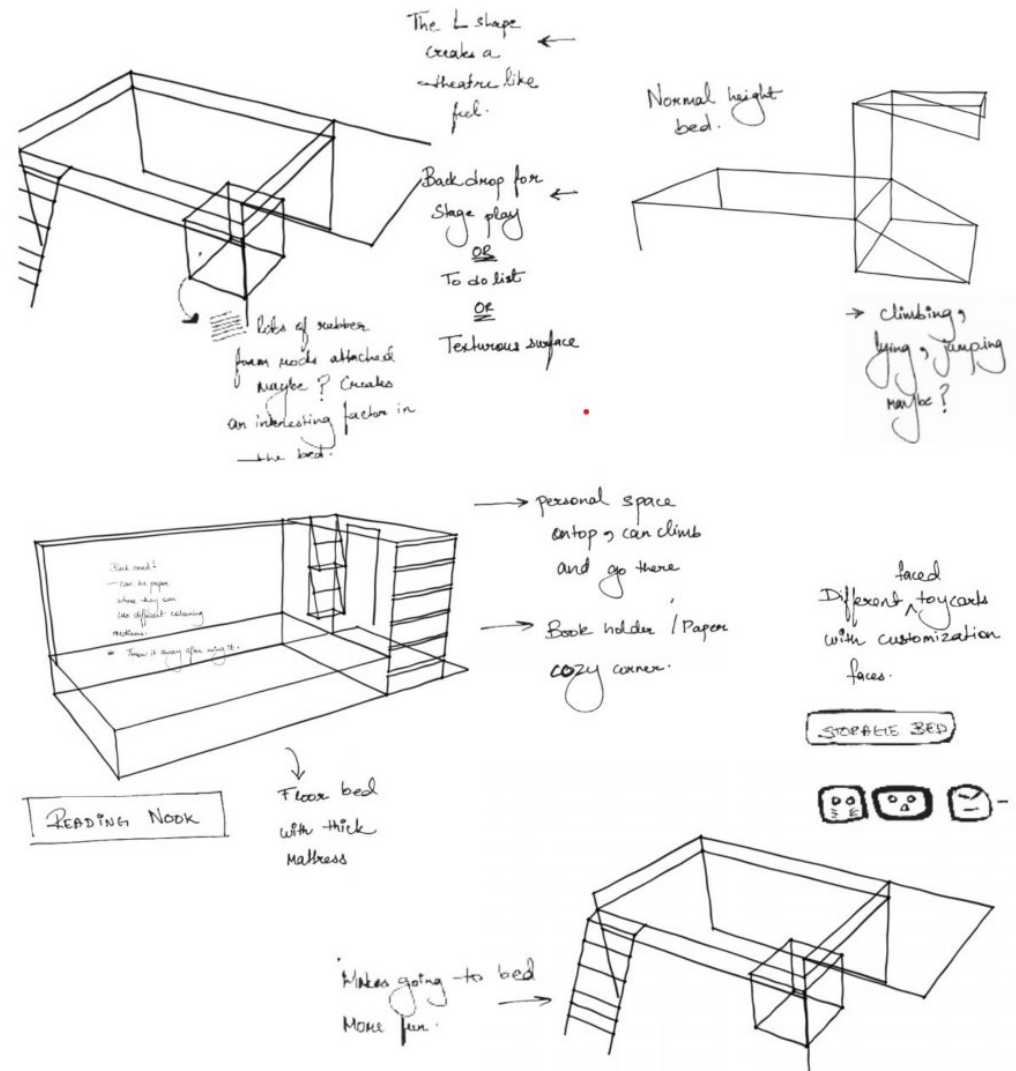
	Cognitive development	Social development	Language development	Physical development
4 years old	— Number counting — Understand day to day routine — Draws shapes	— Role play — Wants to play with friends	— Tell stories — Form sentences	— Get dressed — Feed himself — Navigates playground equipment
5 + 6 years old	— Memory enhance — Motor skills improve	Use imagination while playing	Tell stories in a more developed way	— Coordination allows skipping and jumping — Physically active

Anthropometric study

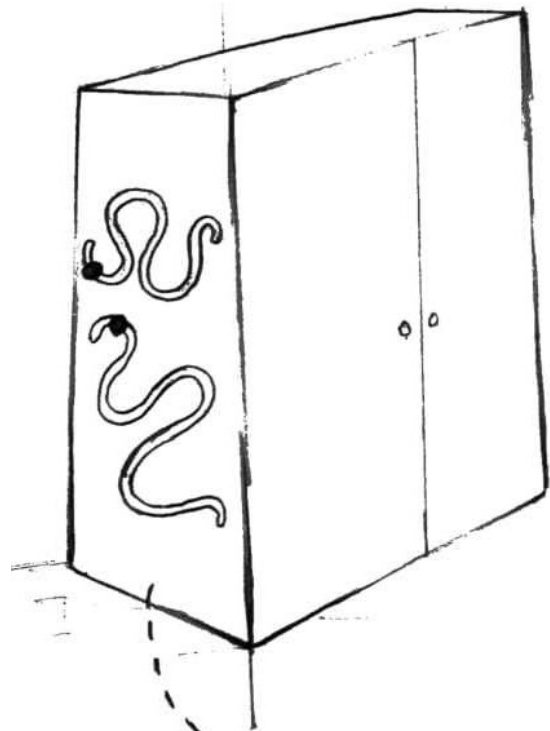


The ergonomic research on kids furniture for 4-6 year olds involved comparing anthropometric data from various sources, including the Central Building Research Institute in India, the United States, and community playthings. This data helped maintain proportions and ensured that the furniture was designed to fit the child's height, ensuring a comfortable and safe environment.

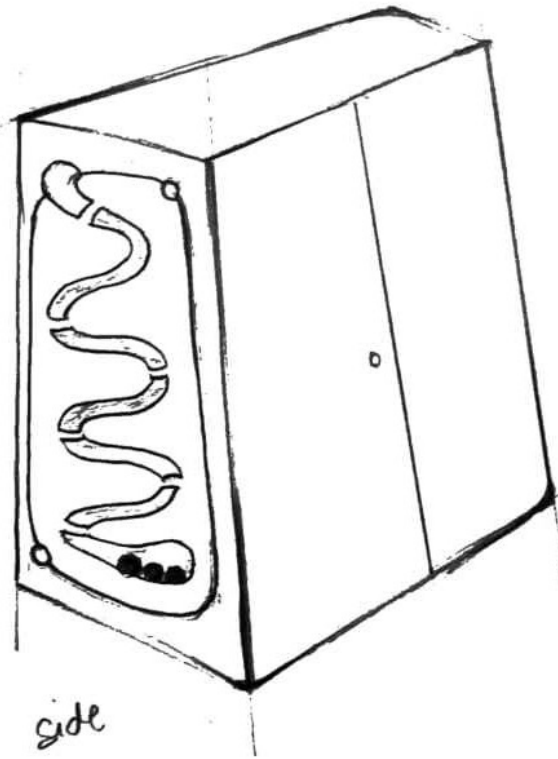
Keeping in mind a list the initial list of activities and learnings a few concepts of bed were generated



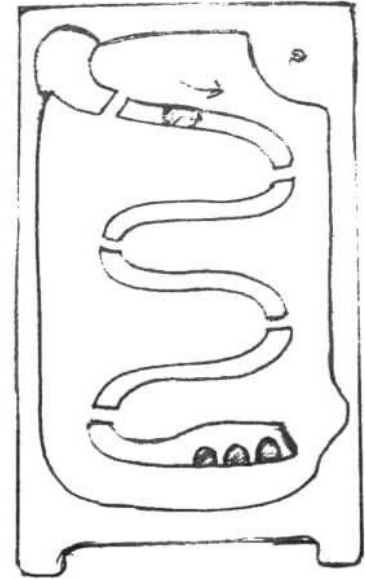
Cognitive development



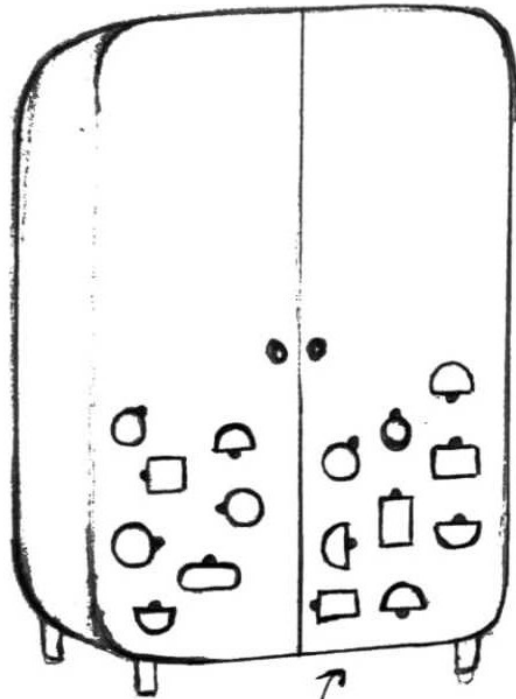
for
playing



side

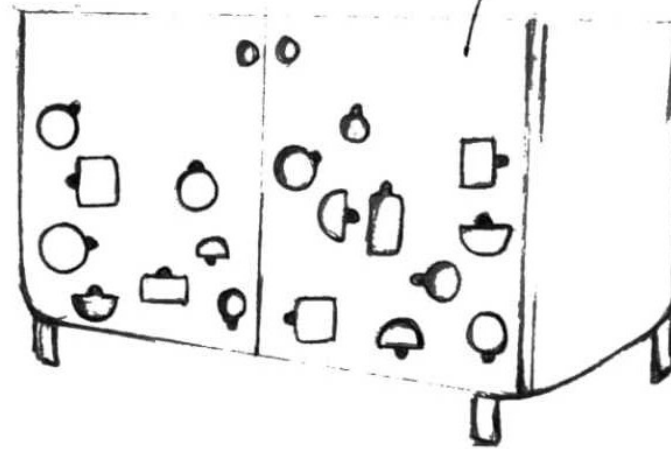


feature is Colourful blocks. The Child can pull out the blocks from the front of wardrobe & use them to play on floor.

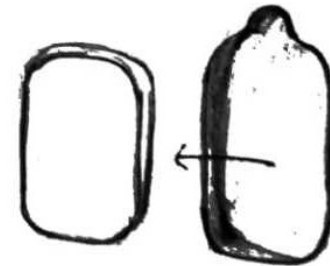


different shapes

Cognitive development



they will learn the shapes



What's Missing?

Like the other major changes that happened over a discussion, this change was no different. I was trying to take the ideation process step by step with the first levels of ideation with each piece of furniture in the playroom. This meant an appropriate allocation of a sensory feature to each piece of furniture to enhance its value in terms of aesthetics and utility. So, once I had a few concepts ready for beds, I had a discussion with a senior designer in my company where we realized beds are not the first priority for playroom and wardrobe was the only essential furniture for playroom collection. Hence it was decided that I will be working on just the wardrobe for the upcoming collection and scrap my earlier brief. The challenge here was to meet the design language that was already established for the other pieces.

Final Brief

Design a sensory-rich wardrobe for the upcoming kids' collection that combines practical storage solutions with engaging and stimulating elements to enhance children's sensory experiences..

Telephonic Interview



Bangalore
09345****52

age : four

The sections that are a must for me ...

- . undergarments
- . daily clothes
- . socks
- . trousers
- . shirts
- . hanging space for buttoned shirts

It's the small knic knacks that are the biggest worry. They always need some baskets or a space dedicated to them.

what about themes ? Are there any particular liking ?

.....
"He loves spider man and doremon. if he a room full of that then it doesn't get better for him!"

Dev picks out his own clothes and it's pretty neat. I have to clean the wardrobe every three months otherwise its quite arranged.



Bangalore
09845****52

age : nine
age : twelve

The sections that are a must for me ...

- . Mirror
- . drawers for socks, undergarments, football clothes.
- . handbags
- . hairbands, rubberbands
- . Hanging space for jackets and fancy clothes
- . lots of shelves

I put the football clothes in a drawer as they are difficult to maintain in a pile as it keeps on slipping cause of the fabric.

Currently I have segregated the clothes in two different groups : occasional and daily
- occasional wear : 3 piles
- daily ware : 1 pile (7 pairs)

for me the biggest problem with sotrage are the small accessories : hairbands, rubberband. Also, both my kids are very sporty and there are too many sport equipments lying around for which I need a solution

MIRROR ?



Mumbai
09898****77

age : seven

The sections that are a must for me ...

- . lots of partitions
- . drawers as it makes dumping easy
- . accessory holders
- . baskets

DRAWERS ?

To be honest we aren't really looking for furniture. we keep hunting for stickers, boards where he can scribble all he likes. He likes to learn on boards than writing in books.

TWO - THREE
my son only has 2-3 occasional outfits and we genreatly keep it in our wardrobe

3 PAIRS

what does his uniform consist of ?

- . shirt
- . pants
- . tie
- . karate outfit
- . school shoes and trainers



Bangalore
09845****47

age : five

The sections that are a must for me ...

- . organizers
- . boxes
- . baskets
- . easy to have different groups of clothes
- . Hanging section for jackets, dresses and shirts

Didn't have much time to talk to be a part of the questionnaire...

BOXES ?

I prefer footwear at the entrance of the house.



Pune
016633****45
age : nine

The sections that are
a must for me ...

- . Mirror
- . 2 big racks - one for daily wear and the other one for nightwear
- . Hanging space for Indian outfits, shirts and tshirts
- . socks
- . innerwear

Right now I am missing a place for accessories. That includes hairclips, bracelets, hairbands etc.

Also need something for socks and innerwear.

She manages to pick out her own clothes right now. As far as rearranging is concerned I do it every 30-40 days.

NEED MORE SECTIONS

Themes would be great too !

- floral theme , geometric shapes , stars
- colours : No PINK ! Red, yellow , bright colours in general



Bangalore
079425****83

age : six
age : two

The sections that are
a must for me ...

- . designated sections
- . IKEA cloth box
- . adjustable shelves

TEN - TWELVE

oh she has plentiful !
She loves to dress up in Indian attire so we have quite a few for her

BOOKS

" when my son was born we were looking for open shelves with baskets as he had tiny clothes and we needed quick access and quick putting away too. But, we didn't find many kids furniture brands so we got a local carpenter to do it."

WOULD LOVE TO HAVE ...

Seperate access for daily and occasional wear !



Mumbai
08454****65

age : five
age : nine
age : twelve

The sections that are
a must for me ...

- . undergarments
- . sportwear
- . daily wear
- . uniform

QUITE RICH !

My kids go to Ambani International school so there they just have tshirt and dividers, sports jersey and shorts !

RIA LOVES TO PICK OUT HER OWN CLOTHES !

But, then my set piles go for a toss as soon as she picks out her tshirt.

a space for the footwears. the kids have 20-25 pairs of footwears that i need to put away.

WANT

OPEN STORAGE

Hair accessories and body care items go with the dressing mirror in the room and bathroom.



Mumbai
98334****00

age : six

The sections that are
a must for me ...

- . Seggrated clothes
- . lots and lots of drawers
- . Hanging space for the clothes which are once in a while use
- . drawers for toys so then no assistance is needed
- . belts and watches

DRAWERS ?

what about footwear ?

I don't need a footwear drawer as I prefer to keep them at the entrance of the house. Don't want my house to get dirty with the footprints especially in the Mumbai rains.

NO !

what does his uniform consist of ?

- . shirt
- . pants

Takeaways

These telephonic interviews were a crucial part of this design journey as these provided with insights into the kind of storage needs that mothers have. The different needs of a wardrobe, categories of clothes and sections that would be needed. So, with that information in mind, I had formulated questions and designs for a wardrobe which helped me have a focused and a well-formulated interview rather than just expecting them to come up with insightful suggestions. Also, having telephonic interviews makes it difficult to communicate as there are no expression or body language to notice.

A majority said that they don't have enough space for toys and provision to dump things in. This is because generally, these parents keep all of their kid's things in one ranging from clothes to toys. The concept of wardrobe being just for clothes is still not established.

The idea of having a shoe drawer was something that I found to be an interesting feature but it was turned down by most of the mothers. This was due to the fact that mostly these footwears are really dirty to be walking into their rooms. This definitely makes an argument to discard the shoe drawer.

When asked about who picks out the clothes, all of them said their kids love picking clothes out for themselves. If, they aren't able to reach the shelf either the parents pick it out or they climb on a chair and do it.

Another major category was accessories, especially for the girls. All the mother of young girls said they like how Ikea has boxes for this kind of things, something they tried searching for but couldn't find it here.

Lastly, there was an interesting input from a parent who said they don't put in so much effort into buying kids furniture as her child doesn't relate to such things. They are always on a lookout for scribble boards and writing boards, something that will definitely excite her son.

User Persona



DEMOGRAPHICS

Target age: 3–6 years

Gender: Unisex

Location: India (metropolitan cities)

Income: Upper middle class
(dependent on parents)

Usage: Kid's bedroom and playroom

PSYCOGRAPHICS

Activities: Drawing, playing, eating,
watching cartoons

Personality: Playful, moody, quirky,
foodie, fun-loving, curious,
adventurous

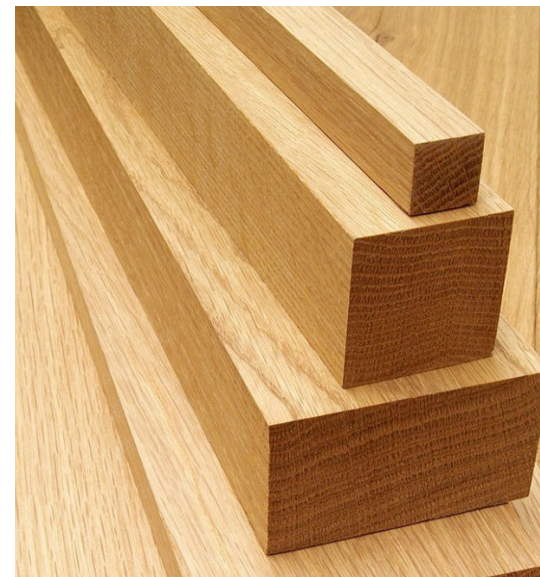
Interest: Outdoor activities, art & craft,
imaginative plays etc.

TREND FORECAST



Arches and curves

Arches and curves in modern kids' furniture create a soft and inviting look. Smooth curves enhance the playful appeal. Designers use curvilinear profiles and pastel colors for a calming atmosphere, making furniture more welcoming and playful for children.



Oak wood for furnishing

What development areas can be tailed with a combination of Bardsabe :-

Cognitive development

- Numbers
- Alphabets
- Puzzles
- Colours
- Games

Social Development

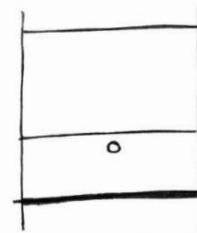
- Take care of their own things.
- Role play with friends

Emotional development

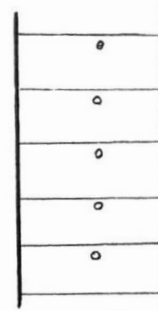
- Characters
- build your own character

What do the kids do/like and how are they?

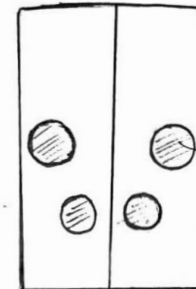
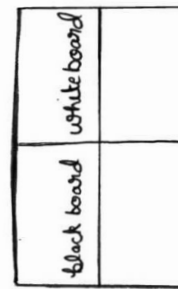
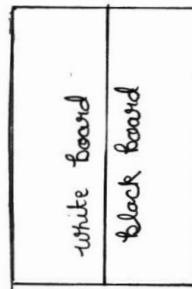
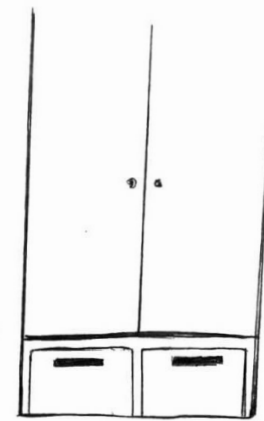
- Feel like adults
- They like to see the real world
- Take up responsibility
- Reading / Arts / Crafts
- Loves to scribble here and there.



Small toy storage

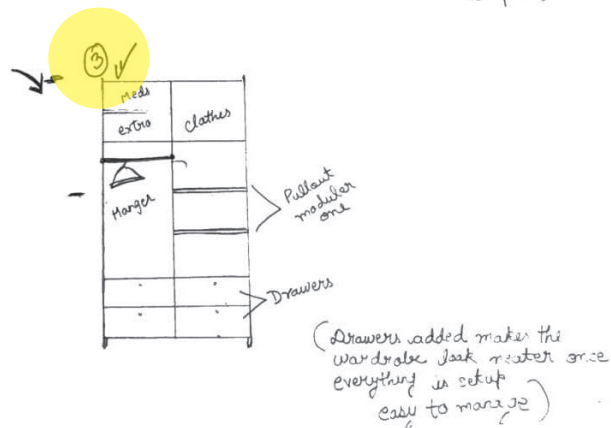
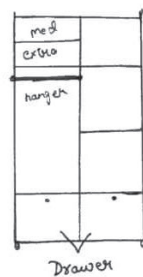
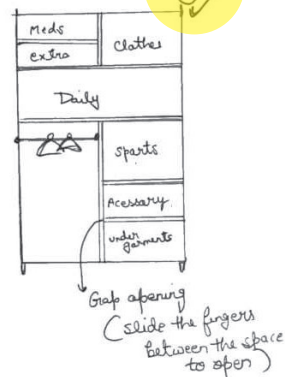
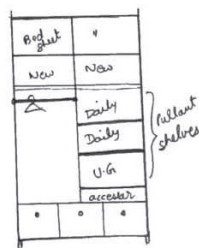
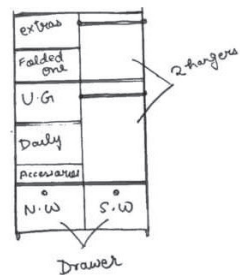
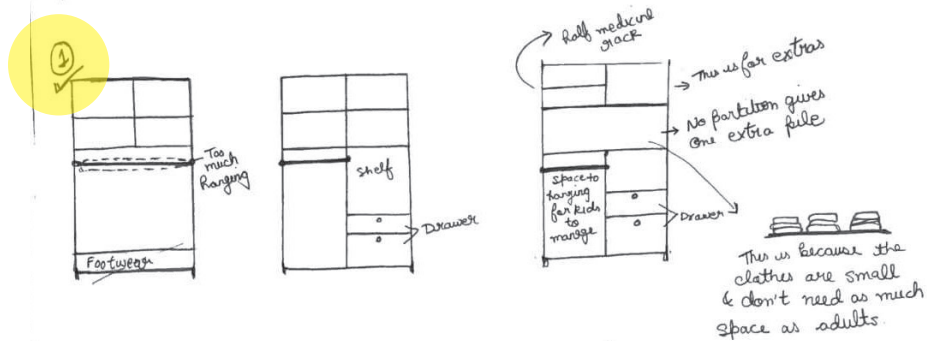


Chest of drawers



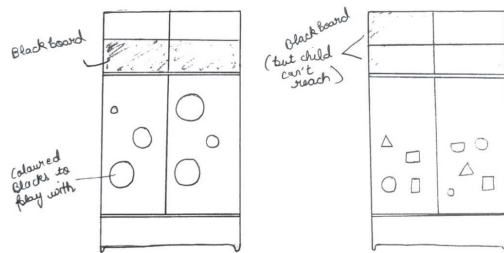
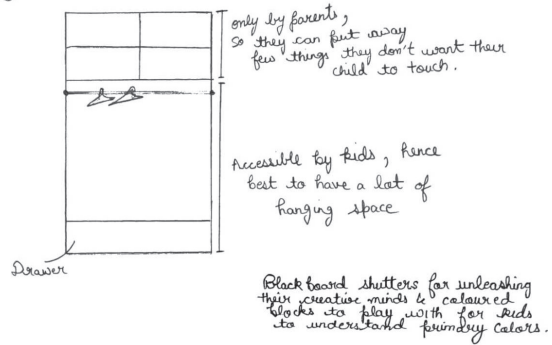
blackboard
scribble
character, faces,
etc.

For the creative ones who want to scribble all day.



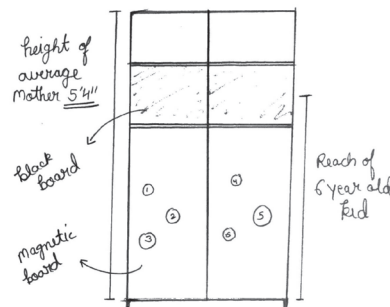
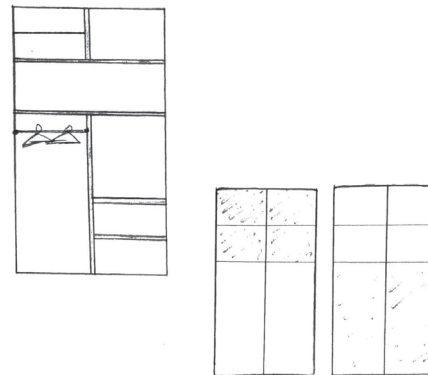
There were quick iteration of different possibilities for one category at a time. This helped build a board of possibilities to create permutations and combinations in the wardrobe layout. As the arrangement of wardrobe is what defines it.

①

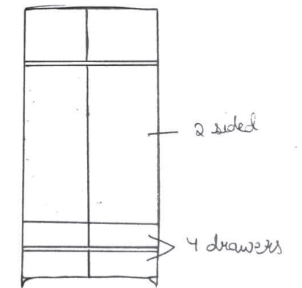
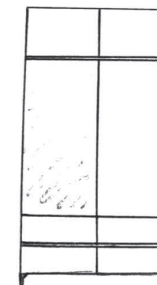
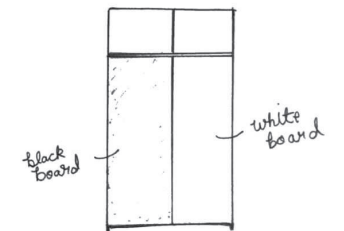
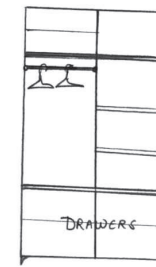


- helps kids understand
colours . Primary + Sec.
- Blackboard for creative minds.

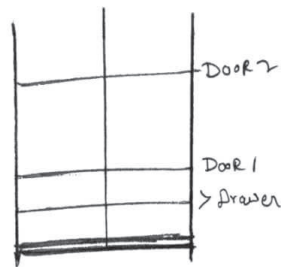
②



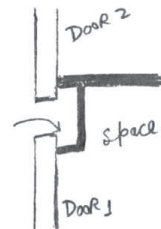
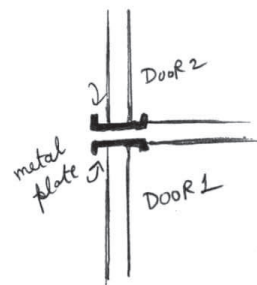
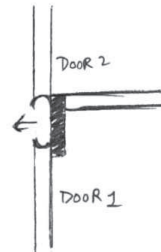
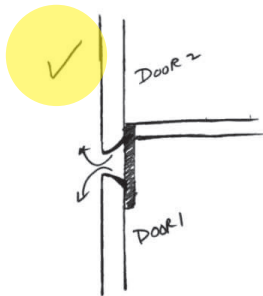
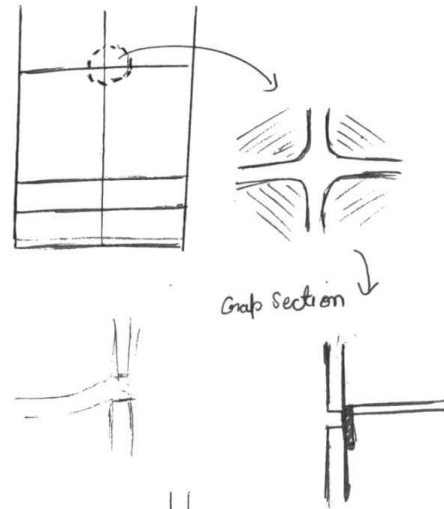
③



Handle details

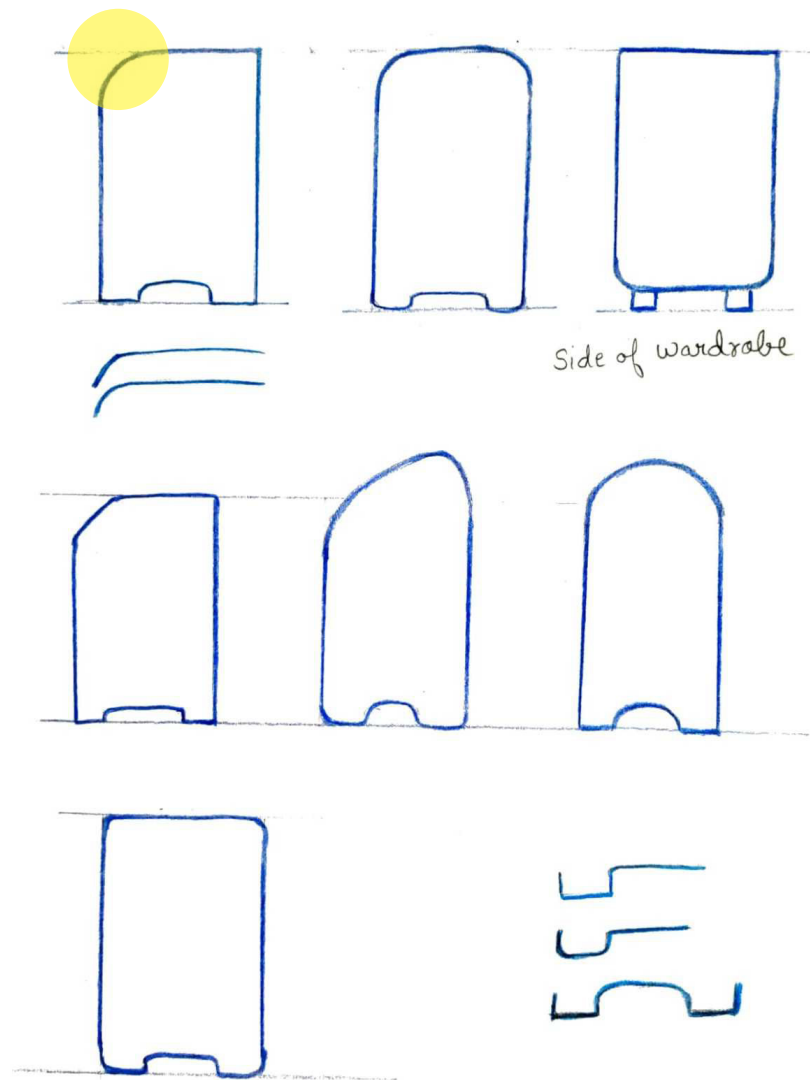


The gap between the door has to be between 25-40 mm



While working on the layouts it was established that there will be no protrusions for opening the wardrobe. This was mainly because if there is nothing jutting out then the chances of kids hurting themselves is nil and therefore increasing the child safety aspect for the furniture.

The challenge with exploring handle options was the material of the wardrobe being engineered wood. This eliminated the possibility of creating steps in the shutters to create a space for the handle- and therefore making form alteration the only option to explore.



After exploring the handle detail options and fixing on one the next step was to explore the form for the side of the wardrobe.

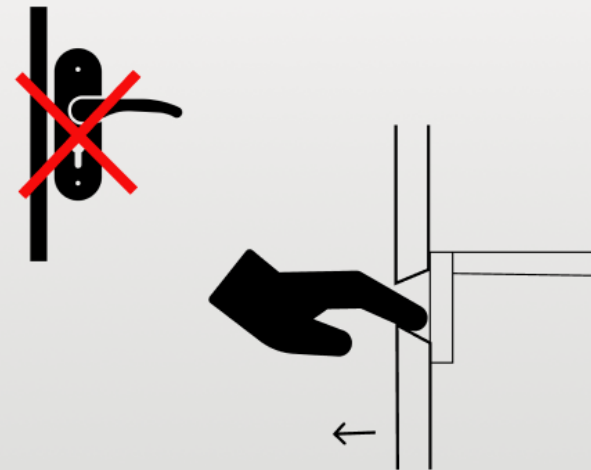
The main factor in the form language was to maintain a visually safe furniture in terms of corner radii.

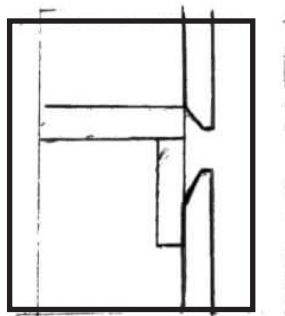
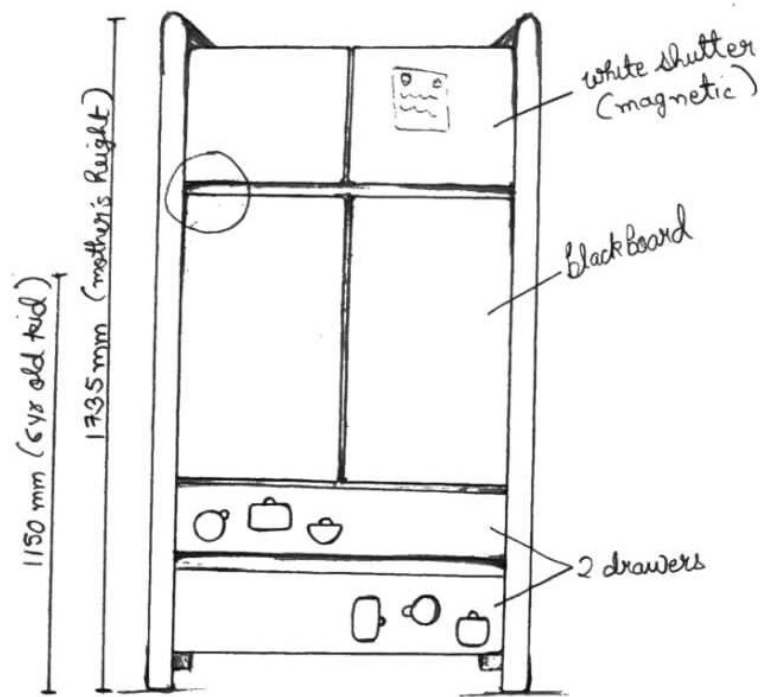
Final Concepts

Currently, there are no wardrobe which are smaller in size , hence less accessible to kids. This is what we create wardrobe which is **1600mm in height** compared to the standard height of 1800mm



There will be **no protrusions for opening** the wardrobe. This is mainly because if there is nothing jutting out then the chances of kids hurting themselves is nil and therefore increasing the child safety aspect for the furniture.





Final Sketch

Final Rendering





**Magnetic board
moved to the top**

This will be used as a display
board for the artwork galore

More black board area
Scribbling, drawing and writing interested
the kids the most so why not give them
larger space to do that

Modular section
This will provide more options for
setting up the piles of clothes

More drawer area
The bottom corner of the wardrobe
are the most inaccessible part,
adding drawers there makes these
corners more accessible

Magnetic blocks
these colorful shapes
for kids to play

Hanging space

For those special outfits



Soft Close

Spare those ears



Opening

Its not the same old,
conventional way!



It's not a box
It's not a still standing fox
giving out socks
Nor is it Goldilocks
So see it unbox!





Technicalities

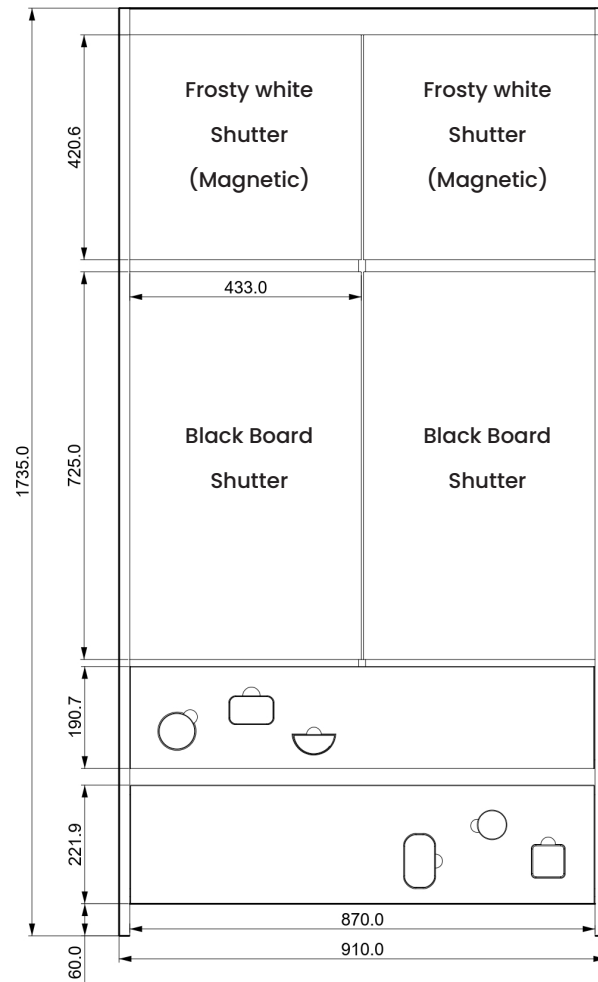
Costing

Material	Rate(Rs./sq.ft)	Size(Rs./sq.ft)	Cost for component
Frosty white, BSL Pre Laminate(15mm)	53	60	3180
Blackboard, OSL Pre Laminate(15mm)	40	8	320
Magnetic board, OSL Pre Laminate(15mm)	187.5	4.2	905
Oak wood, OSL Pre Laminate(15mm)	50	24	1200
Material	Rate per piece	Quantity	Cost for component
Hardware Lumpsum cost			250
Soft close hinges	100	4	400
Soft close drawer channels	125	2	500
	Total cost		6755

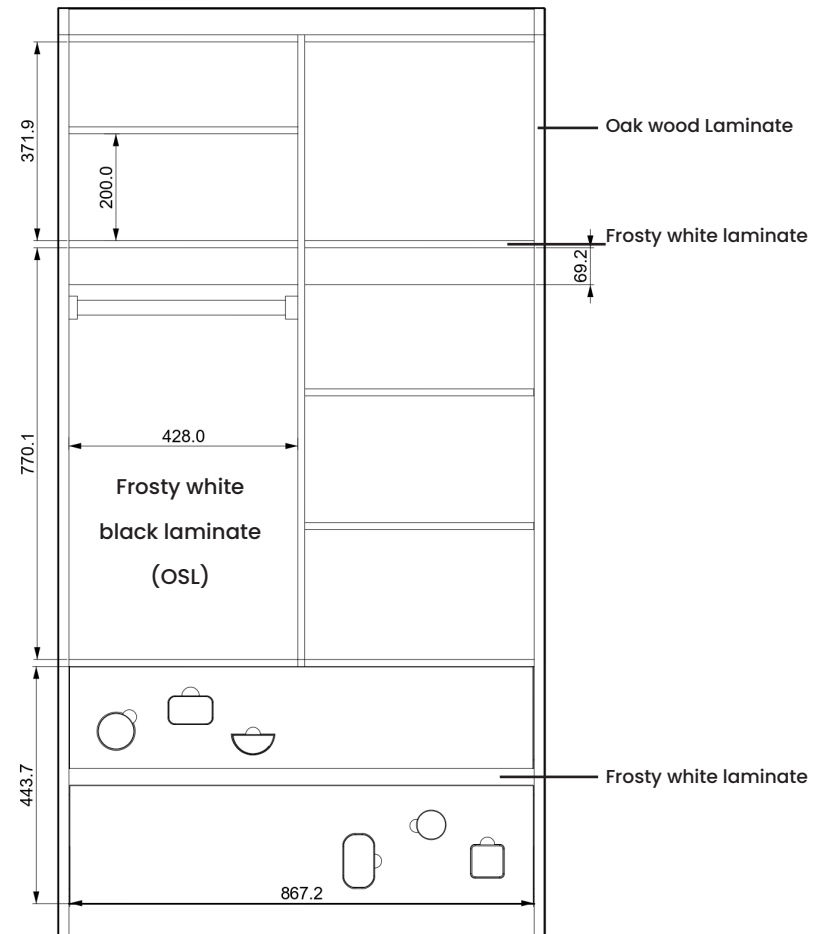
The costing at Truly Sofas is a pivotal part of the design as the manufacturing cost is the determining factor for the rental value.

A rough estimate of the wardrobe was done before getting a quote from the vendor. The estimate is done with the price list released by manufacturing brands. This is generally done to get an idea of how much it should be so the negotiation can happen between the sourcing team and the vendors

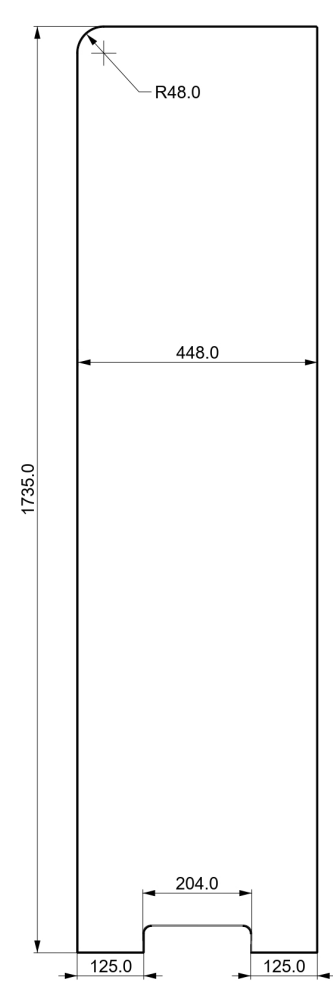
So, the costing includes the raw materials and hardware and on the sum of this, a 25% labour cost is added. As the manufacturing is done with a vendor they add their 25% margin to the subtotal Recently with the GST changes in the government, a 28% GST is also applied to the cost as Truly Sofas is a service company. The process outlined above is an established skeleton for any furniture costing at the company.



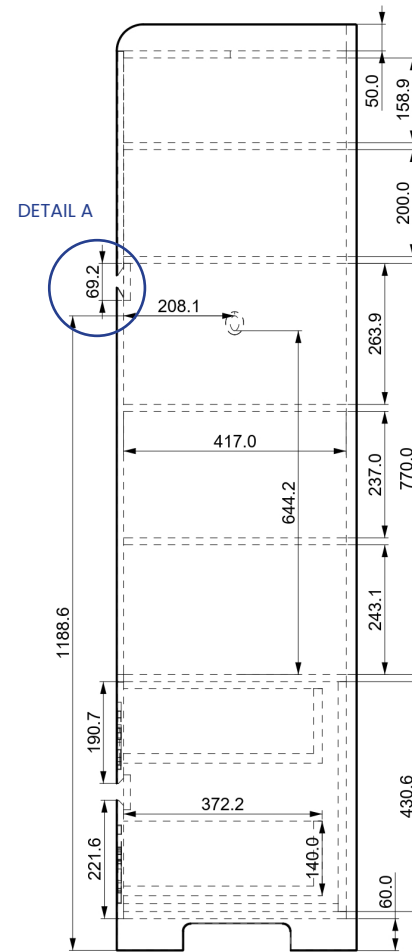
**FRONT ELEVATION
(with shutters)**



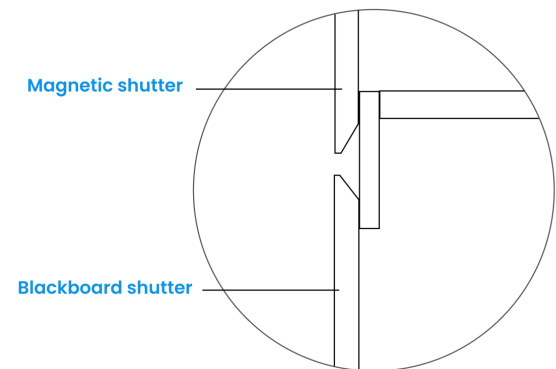
**FRONT ELEVATION
(without shutters)**

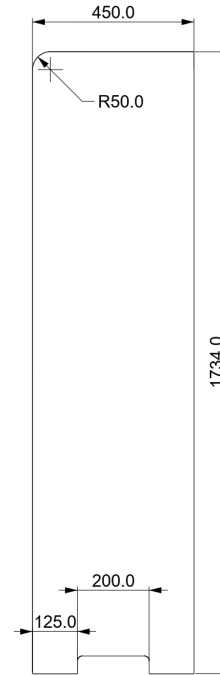
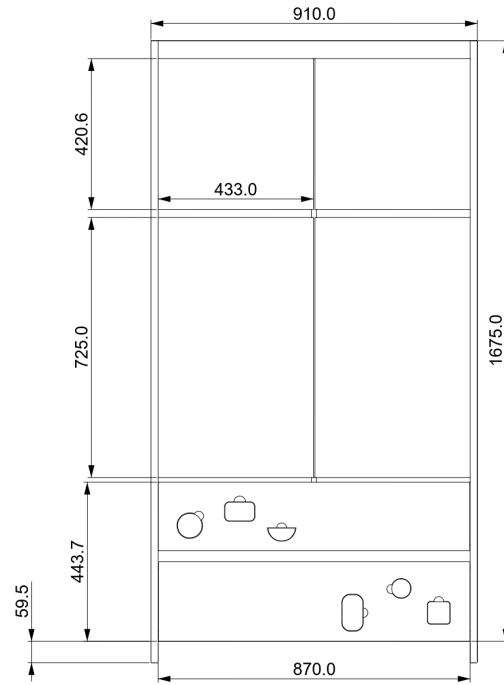
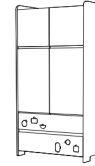
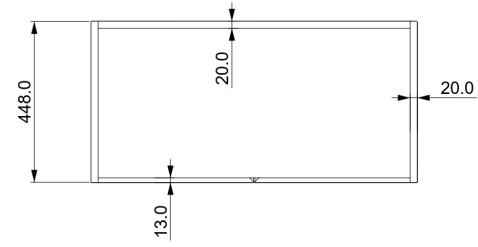


SIDE ELEVATION RIGHT



DETAIL A





Introspection

This graduation project has taken me on quite the adventure. With the chance I was given, I am really happy and contented. By the conclusion of this paper, I am able to see how this project came to be. I am happy that I was able to finish it and get praise for the finished result. Receiving positive feedback on your work is the best feeling in the world.

During this project, a lot of learnings came my way and I truly feel I have grown as a furniture designer if nothing else. I have been able to understand the difficulties that come with designing something really simple. Working at Truly Sofas exposed me to a lot of the business side of the furniture market, giving me a better understanding of the current scenario. I really enjoyed learning the way Truly Sofas works, it truly is a very different company. Having said that, as it is a startup it gave me an idea of what problems a business can face in its growing years.

Having worked on a project which was starting from scratch, gave me an opportunity to be a part of many more things than just designing the furniture. Little things like planning for a photo shoot, creating packages, attending meetings, all of it added to the learning curve.

On a lighter note working as a professional such as this made me realize the importance of weekends. Oh, it's a bliss! I hope to come across more projects such as this last and with this it's the end of my student life. Leaving on a note of excitement to see what the future has in store for me.

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Thankyou!