Understanding Incubation and Entrepreneurship
Dr. B.K. Chakravarthy
Department of Engineering Design
Indian Institute of Technology, Bombay

Module - 04
Paradigm Shift from Design to Entrepreneurship
Lecture - 08
Section 3 IITH Student Projects Customer Discovery

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The first one, the first team one.

Yeah. So, hi we are team one; Vijay, Mayuri, Nikita, myself Shubhi and Gautam.

Idea

How might we help a visually impaired person to be more self reliant?

So, the idea that we were working on was how might we help a visually impaired person be more self reliant alright. And then we sort of track their day to day activities that they do things that they might need help with.

So, cooking, shopping, traveling and commuting basic activities and then we narrowed down to shopping, how do we make the shopping experience better.

Problems within their shopping Experience

- High dependency on strangers (shopkeepers, retailers, etc)

- Lack of purchase information

- Lack of choice and confidence while choosing the products

- Lack of trust while handing over the money

So, the problems were the lack of choice and confidence while choosing the products lack of trust while handing over the money. So, for example, if a blind person shops their own groceries or at least to the local kirana store or in a shopping mall when they go and they are handed a bill they trust the person that they are accompanied with or they trust the shopkeeper or the retailer to tell them the right amount right.

Redefined Problem Statement

How might we reduce the dependency of visually impaired while they make transactions for purchased goods?

What if we could sort of reduce that dependency on the people that there were at least give them that information that, what money they are paying for what and purchase information and that too with validation and proofs you know. So, even if there is an audio machine that we thought like, there are existing machines that say the amount that you have, but the we like the blind person cannot go back to the shop right if there is a problem.

There is no written statement that they have where it is not like tangible an audience statement can they can hear it and it will go, but there is nothing tangible in their hand. So, that they can you know look back at that purchase information also. So, the problem statement that we redefined is that how might we reduce dependency of the visually impaired while they make transactions for purchased goods, specifically, the transaction.
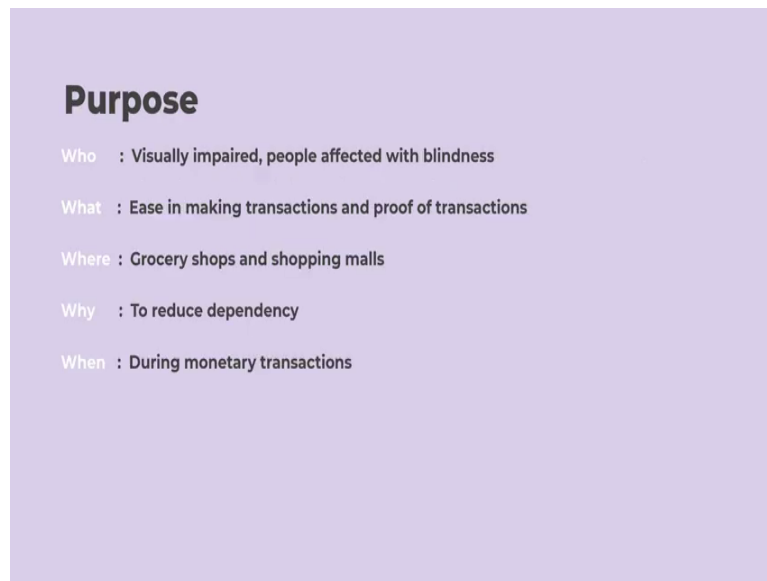
Objective

We aim to come up with a product for the visually impaired that is customised for printing braille, essentially on the receipts of their purchase to remove their dependency on others for basic information

The idea that we have is we are looking into printing Braille of an bills and receipts and we are already. So, Mayuri and Vijay had already had done a lot of ideation on this problem statement and we were working on the product development right now. We are looking at all the options; can it be a portable machine, can it be a stamp, can it how can we do that thing and the ideation is on.

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The purpose of course, who, what, where, why and when. So, it is for visually impaired people affected with blindness. So, that ease there is ease in making transactions and proof of the transaction it can be incorporated in shopping malls, grocery shops any kirana store or wherever a bill is being printed and yeah that is (Refer Time: 03:02) now yeah.

Alright, thank you. So, I have seen this problem and you know other solutions that people have tried on this started to think about have not seen anything yet completely done. Definitely, I think there is a problem I have interacted with anyone directly, but looking at many people have come up with this problem statement assuming that you know you also may have some firsthand experience.

Q1: Have you interacted with anyone with this problem?
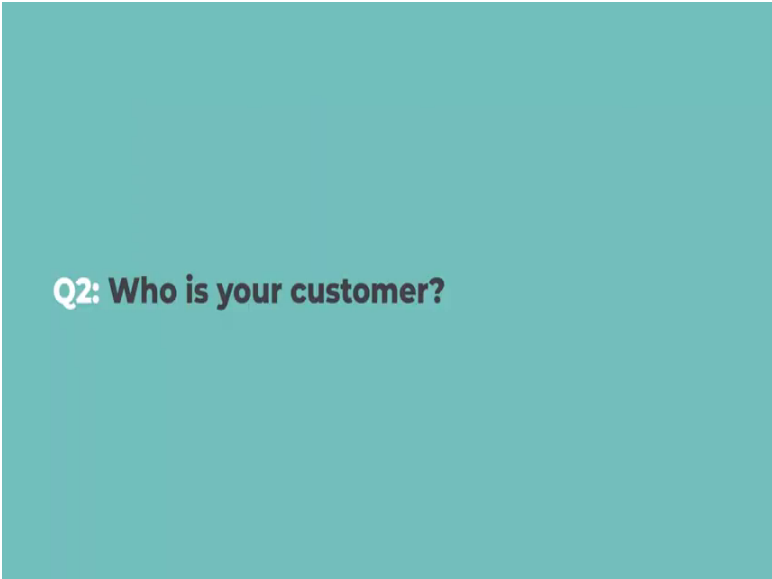
Have you interacted with anyone?

We developed a Braille stamp, but and I took interviews of blind and also the shopkeepers. So, it was not very promising because they did not understand what I was trying to do or probably I was not able to convey my idea because I directly went to the solution, I did not ask you know about their experience and everything.

So, we have a product Braille stamp, but then we diverted our topic to this because this has a concrete problem statement, which is crisp and to the point. So, if you want we can also share the product that we made. I mean not a tangible product, but a 3D model.

Now, the next question for you is, who is your customer, who are you going to sell it?

Yeah.

The customers will be the shopkeeper, retailers like the mall in the malls and the users like are different.
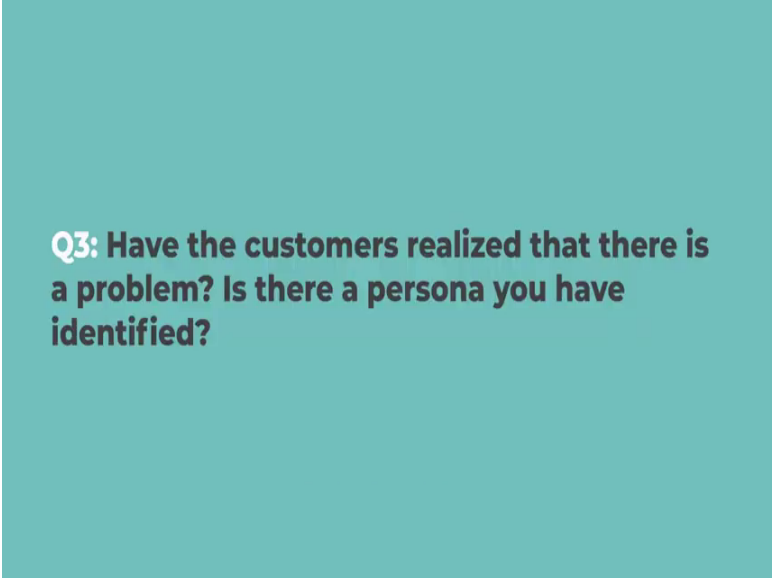
The beneficiaries are different.

But the customers are these retailer, shopkeeper.

Yes.

Who are giving the Braille cash amount.

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Q3: Have the customers realized that there is a problem? Is there a persona you have identified?

Yes, strong reasons or motivations from them to do this, have they realize this as a problem themselves or is there particular set of shops?

When I was interviewing, once I put out put this out there then they realized that ok this can be a problem, we did not think about this. So, we can counter such a problem. So, yeah they were hesitant, but then slowly when I was talking to them they realized that ok no this is a problem area this can be worked on.

Also to sort of think of the motivation behind brands or shopping malls incorporating this in their billing thing, I was thinking maybe you know they can their motivation can be to advertise that they are being more inclusive. So, I do not know. So, right now there is a, it is

what it is. People are capitalizing on inclusivity, people are capitalizing on and branding themselves and advertising inclusivity right? So, maybe with this product they can advertise and brand themselves as an inclusive brand.

Perhaps, you should maybe focus on that persona to start with.

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You cannot convince everyone at the beginning.

You should focus on a single persona to begin with.

Pinpoint and sharpen your focus.

See initially to start your journey you cannot convince everyone to buy your product to educate them to make them aware to make them realize.

Yeah.

There has to be something, which will trigger it you know either they are themselves looking for a solution. Right on the fence, right on the edge maybe they have publicly claimed that

they are inclusive that they want to do good, they want to do better and then you jump in you know one way you can do that achieve your goal is through this.

Yeah.

Right. Maybe it is the SDG goal or whatever. So, you highlight that, but that is how you need to really pinpoint and sharpen the focus.

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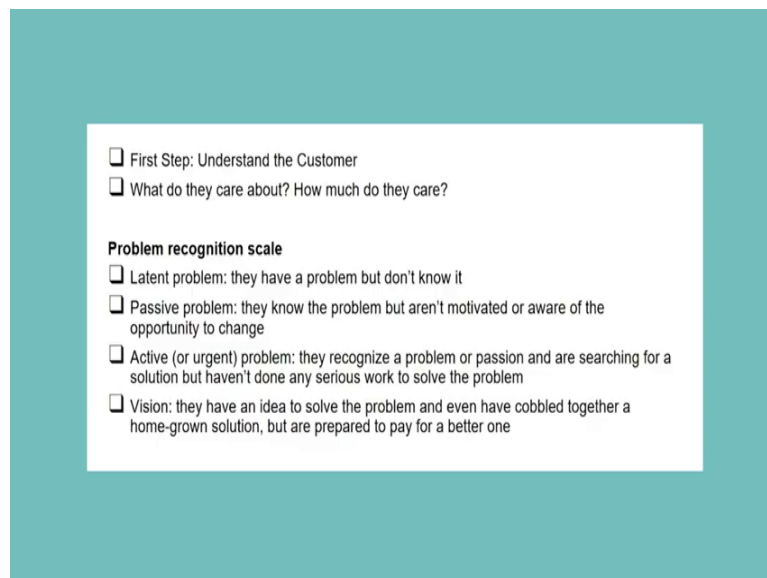
Maybe I will share a quick slide for everyone's benefit on how to look at the problem from the customers viewpoint and you know there is a scale, where is this persona alright. So, the problems you know in older days we used to call, is it a nice to have or a must have, is it a the mosquito prick or is it a shark bite you know, what kind of problem is it that I must need solution today.

Like, I want a nice pair of shoes just because I want another pair of shoes, which is nice to have or I have a real pain in my teeth and I must get something to solve it otherwise I cannot function today right. So, where is my problem level that severity that impact that it creates. Now, there are two things that we should always be looking for.

One is impact, is it creating an impact in my life and how frequently does it happen? So, in your case the frequency is every time anyone is shopping right. I can create some benefit to the society. If I have myself claimed to my shareholders to my you know stakeholders that I am progressive that I am proactive in doing something better for the society and all those things right.

So, those are the personas that you may want to look for any other any problem. These are the ways which we can kind of divide them in you know at what level are they. So, latent problem is that they have the problem, but they do not know it. So, you know many times for example, if I ask I do not know, whether at home you guys are sitting on a chair or on a bed or on a stool, but how does it feel right now?

Can you feel the whatever surface you are sitting on in any way like, is it hard is it soft. So, before I asked you were probably absorbed in other thoughts and you did not even pay attention to that right. You may have had a discomfort while you started to sit, but you probably have forgotten about it and it is you have taken it for granted, it is the way of life right. It matters, but it does not matter that much, at least not for this job that you are currently doing.

And you have become accustomed to it. So, maybe they have a problem, but they do not know it they do not care about it or maybe it is a passive problem. They know there is a problem, but the it is not that bigger problem. There are thousand other problems on my list in my life and urgent problems, bigger problems, bigger impact problems I want to solve them right away or it is an active problem very urgent problem that I know it is a problem I need to solve it I must get to solution.

I am searching for solution, but I have not done anything to solve the problem myself. If I find a solution maybe I adopt. And then maybe sometimes you are in a vision category, the customer is in a vision category where they do not just feel the problem and the impact and they want to solve it, but they are. So, visionary that they have done some [FL] and have tried to solve it and; obviously, that [FL] is not their primary job. So, if a solution comes around they will likely adopt that solution and do their core job.

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Find the customers who have the sharpest need.

Visionary customers have a very sharp need, they will attempt to solve their own problem even before a proper solution is found.

Visionary customers are a great place to begin the journey.

So, ideally we want to start with the persona, who is in the vision category, who is who has a burning desire and a need to solve that problem, it must be solved for them. If we can start there you know there is a whole you know distribution of people some will be early adopters and evangelists right. These are the people who will fall in that category then there will be

laggards, skeptics and all those kinds of others who will follow them later on, but this is where we need to start.

So, if you are doing your customer discovery, if you are going out and talking to different personas then try to figure out if there is a persona for whom this problem is really big and must be solved today. So, I will give you an example quick one. So, we had a team. They were trying to develop a method to track dance movements.

So, someone who would come in front of their app on the camera and they can the app can tell whether they are making the right move this elbow was higher or lower or whatever right. So, the natural target and the their interviews were revolving around people who were trying to learn dance right, who were trying to better themselves or they did not have a place to go to learn dance and all those kinds of things.

Then suddenly they met a psychotherapist, who was using dance in her therapy and to do that she had to do some [FL] make some videos, upload, tell the clients and look at those videos and then give them feedback and all that. Now, she was already doing this [FL] and she was like can you please give me this app as soon as possible. For her this need was so important to be solved right away.

I think that is the main input for you guys, focus on the persona really figure out their motivation and out of different personas try to zero in hold in on the ones and validate your assumptions with them.

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So, we are a team of four people we call our ideas spaced. It is a virtual reality experience virtual reality everyone has been looking as a game or some interaction purpose to a virtual world. We identified that the main purpose of a virtual reality is to create a change in space and that is where.

Problem Statement

Stress among people in colleges and offices due to long working hours / during short break.

So, we were thinking of this idea that there are been like there have been some times where you there is a break time in corporate offices or in colleges or you know there is a in airport where is a waiting room or something where a person is in a hurry and he wants to get to some place or he wants to go to some meeting before that he takes like fifteen minutes or twenty minutes of break.

So, we want that time to be more efficient for a person for which we were thinking what can be done or what is the what is the use that could be done and how are they catering that problem. So, like in corporates there is like a it is like a concrete building and there is a lack of space which is evidently seen especially in metropolitan areas.

So, they make some leisure spaces like they hang some leisure furniture's in order to make at least some informal way of setting for the employees. So, that they get you know they gets a little bit relaxed within that space itself and then later on be fresh for the next meeting.

So, that this is. So, that is how we defined our that is how we defined our problem. And later on we thought of seeing virtual reality as a solution to it because it is a quicker way to form the change in space which a person would need for at that particular time instead of going somewhere else and walking somewhere else.

So, this is our proposition like they have these nap pods within the campuses and these are many corporates are adapting to these. So, we thought can we make or can we make these napping pods more better or can we enhance them in a better way so that even for a shorter period of time the employee or a user should be much better much relaxed and can be much refreshed in a better way.

So, when we so, when we like I had this one of these leisure spaces in my companies when I was working and they and this was in our college also which I visited during my architecture time. So, it is like you they people are sitting there for you know half an hour one hour they are taking some nap and then they come back and work like that.

So, it is just trying to make this more efficient and much better. We have not decided yet like, what is the product approach or is it like the exact product approach that we are going to do or is it like the enhancement or attachment to the same products that we are going to do. Virtual reality could be a better way tool because it is like on it could be on the way it does not require much of a space that is what the idea was to use it

Customers

Decision makers of

    - Companies
    - Colleges
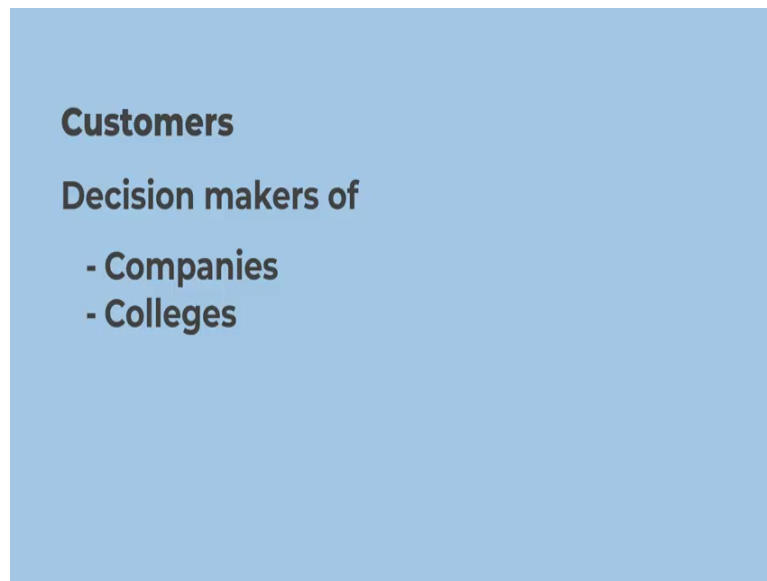
So, the customers which we are looking at were a companies which like, while planning they if they can put some napping pods in the companies and a few colleges or universities also have this such kind of spaces. Like universities, which are having incubation centers or co-working spaces even they have such they could have such kind of I mean products or I do not know service which we could cater to.

Ok.

Do not present your ideas on the basis of a solution technology.

Focus on the problem, not on the technology.

[FL] first thing that I felt when you started was that your focus is on the tech right.
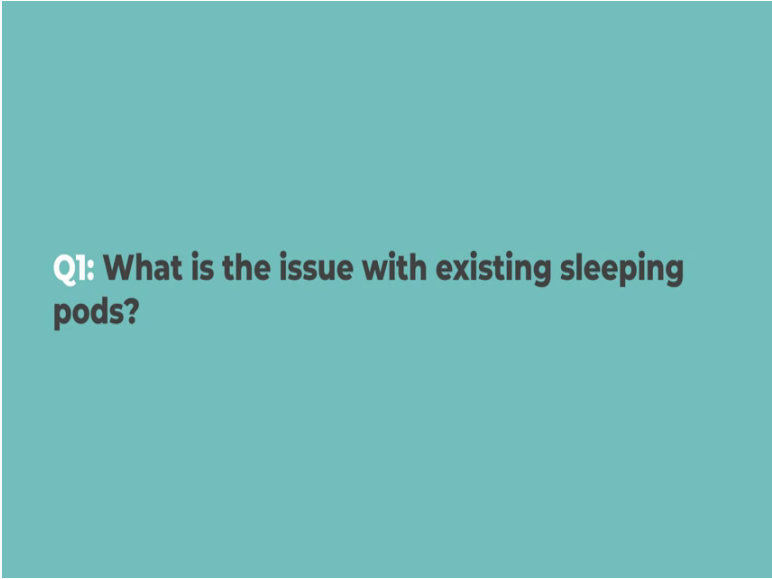
Yeah.

How it has evolved, but at least the way you have presented it showed very clearly that because we want to work on the tech now we are finding a problem which solve with this tech right. Now, so, your presentations should change eventually later on as you mature do not start your presentation, this is for everyone that ok. I am a blockchain expert. So, I am going to talk about or I have developed something in blockchain and that is why I am doing this, does not matter.

What the other person is interested in is what problem are you trying to solve whether that problem is real and what evidence you have about that. Good thing about you is that you have

experienced these sleeping pods. So, sleeping pod was there when you started to talk about the problem that is where my thought was also going and then you also you know went there you have experienced it.

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Q1: What is the issue with existing sleeping pods?

Now, the question to you would be what was the problem in sleeping pods?

Time. So, there are times when these are like you know the number of them.

Yeah.

How much do we have, because it is like if there are 80 people usually company have just one or two and people are sleeping over there because they want like a there is a, the napping time

is a much more I would say that was one of the problems which you know line [FL] I have a meeting to catch [FL] please I need at least 2 minutes of rest.

How long would people napping for there?

But [FL] we are just saying that it could have been your product was not alternative to the plot pod which does not occupy space is just a head camera and you put it on and you are napping.

Yeah; no sir.

Ok, I did not realize that.

No.

Yeah.

I am just suggesting, but Anshul, if that was a problem I am suggesting that, but he is.

Could be, yeah.

This is something else actually. Anshul.

Yeah.

What are you saying then?

No sir, I am saying the same thing. Just that sir said [FL] what was the problem when.

What.

I like personally.

Yeah.

I was experiencing. So, this is what I am telling [FL] it is like the number of people, which who wants to use are more than the number of wants that is the first and secondly, [FL] if you are there for 15-20 minutes you do not actually [FL] refresh [FL] easily.

It is not sufficient.

Yeah it is not sufficient for a person, it is not enough for you like that.

I think in your case that space problem and the number of units versus people that you need to work around. Costumers definitely are going to be companies. So, someone in the company who cares about so, maybe the HR is someone you need to understand what kind of initiatives they are taking, if they have done sleeping pods why if they have not done sleeping pods why not. Maybe that is where you can start that maybe it was too expensive and you know it takes too much space and they cannot have enough.

But if your unit is more efficient and more cost effective maybe they can have multiple or whatever. And then I think the science will matter. So, if you can actually club up with something you know someone can actually prove it scientifically, that yes this actually leads to refreshment and have if I.

Sir.

Measure.

About that actually the same. So, we tried this experiment with. So, it is a it is a device called Empatica E4, which maps the skin sensitivity from neurons.

Very good.

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So, like we will go to next team.

Let us just start with what exactly we want to sell? We want to sell sensory experiences and people sell sensory experiences every day. You go to a restaurant you are eating food that is an experience, you go to the theater you watch a film there is AC that is also a sensory experience and what we wanted to do is use sensory experiences to assess the development of mindfulness based stress reduction.

Stress is at an all time high given to corona, we are just one step away from a mass hysteria and we really want to have people more grounded in the reality and not think about the past and the past and the future so much.

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Proposition

Using sensory perceptions to assist development of mindfulness based stress reduction (MBSR) in isolated and crowded environments for adults.

To do this the best way we thought go forward is to increase sensitivity to these sensory perceptions. We look at things we see we feel things we taste things and how can this be sold and made into the market. So, one way to kind of narrow down is that we chose it to be for adults aged from 20 to even the elder population, but like around 40s to 50s.

And we wanted to also focus on being able to meditate and be mindful in crowded environments because meditation and things are always seen as a thing that you do in

isolation when you have a peace of mind. But often anxiety does not come at [FL] let us make it a point to trouble this girl. So, that is what the two focus areas for us have been.
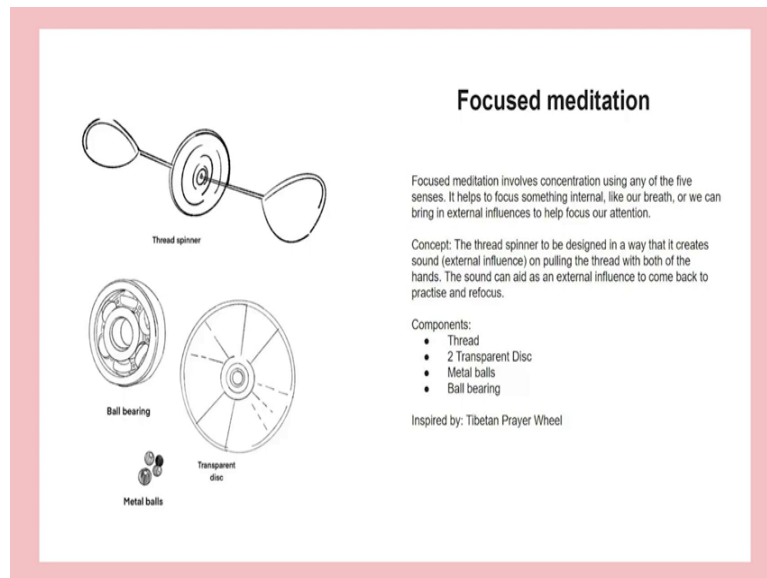
So, there are different kinds of meditation. So, one which I have focused on is focused meditation in which I mean this thread spinner I have made taking inspiration from Tibetan prayer wheel. So, basically the people they chant prayers I mean rotating the wheel, similarly, it I mean it produces a sound which helps the person to focus on something and I mean to bring their focus in a single I mean path.

So, similarly I have I mean sketched a product which can be a thread spinner and inside that there can be a ball bearing and also the ball. So, when the when you rotate I mean and this thread spinner it can create a sound and similarly it we can focus our attention towards that is sound. So, this is one of the idea and the next one is.
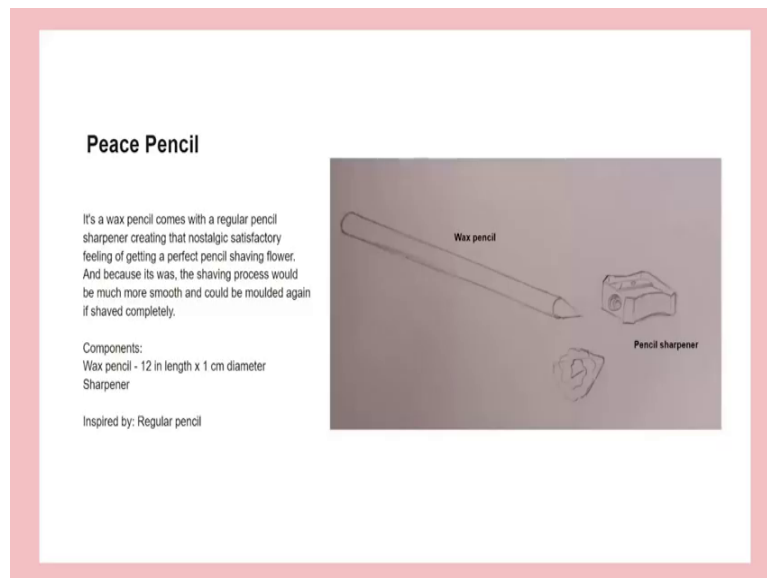
It is very nostalgia driven concept, it is a peace pencils. It is just a simple wax pencil and when we were young we used to like fancy when you sharpen a pencil, you get that sharpened flower out. So, we came up with a lot of ideas. This is just one of that.
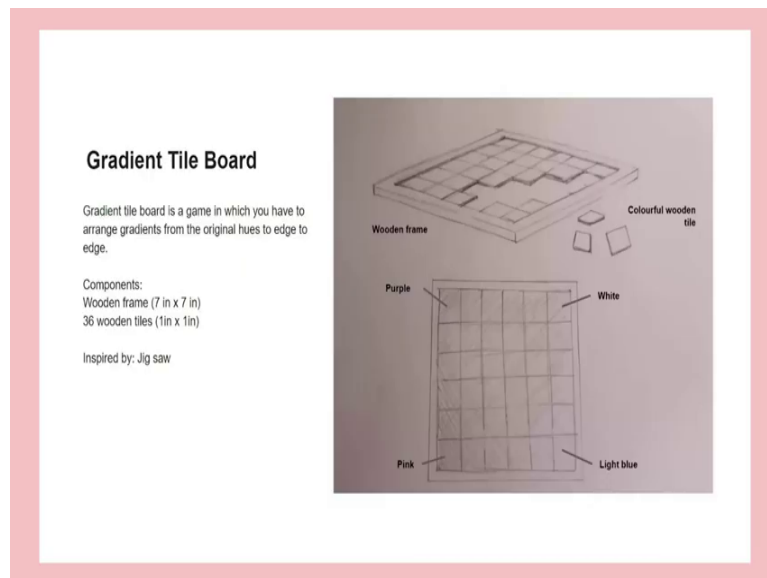
This is a gradient tile board. So, it is a simple board frame with a small tiles of gradient and you can arrange it from one color to another. It is just going to help you like a fun activity, a fun and where you can like focus and match each color and it is a little board game kind of concept.

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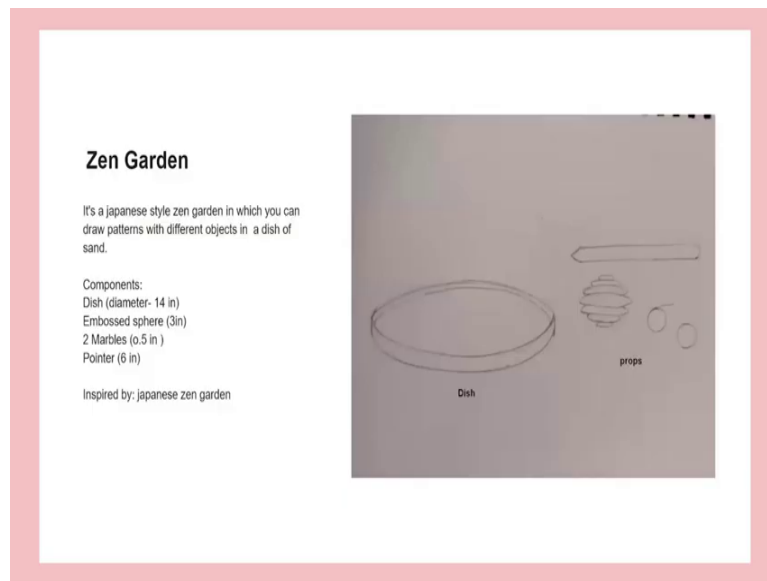
So, it is a Zen garden, it is inspired from Japanese Zen garden in which they rotate a ball a metal ball on a dish of sand. So, I tried to go with the same kind of concept where they have a lot of embossed stuff to just rotate in a dish and the sound and the senses where the things will move around the board gives you some kind of satisfaction.
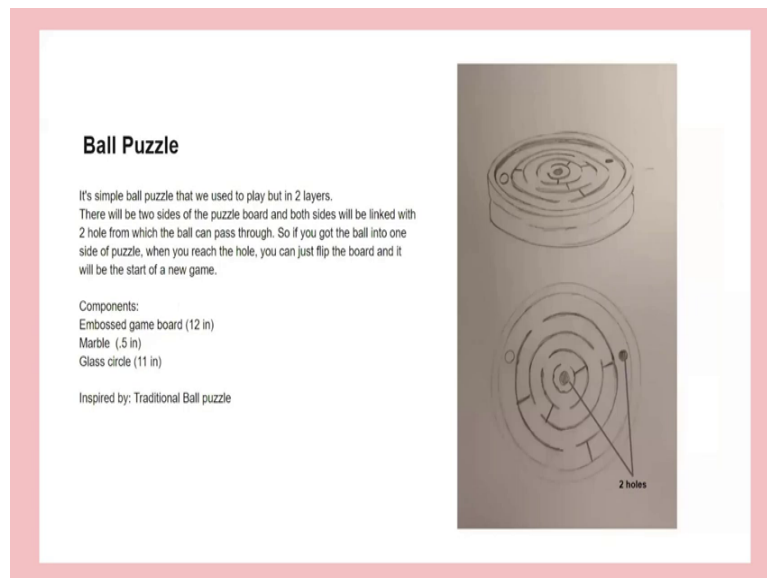
And this is a ball puzzle. This is like infinite ball puzzle kind of concept, where they have puzzles on boards both sides of the board and once you get the ball from one hole to other hole you can just rotate the board and you can play this thing the whole thing again. All of my concepts were more nostalgia driven.
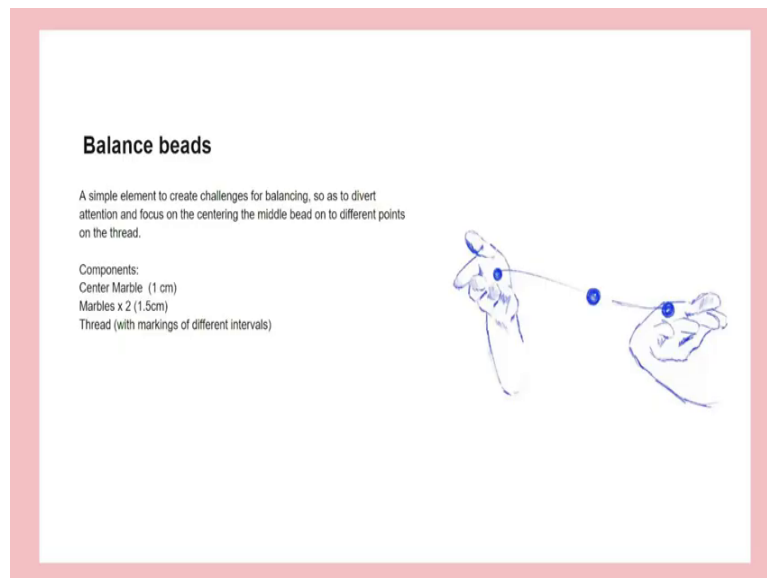
Yeah. So, one idea was this like something to focus your attention to something like balance beads, its very a rudimentary an idea, but there will be two beads that you can hold in your hand and there is another bead in the center and the task is to place that bead at different markings across the thread. This I thought would like it is based on the assumption that it would be very challenging as you increase the length of the thread and things.

So, that would divert your attention from thinking about going on different tangents and just focusing on this thing.
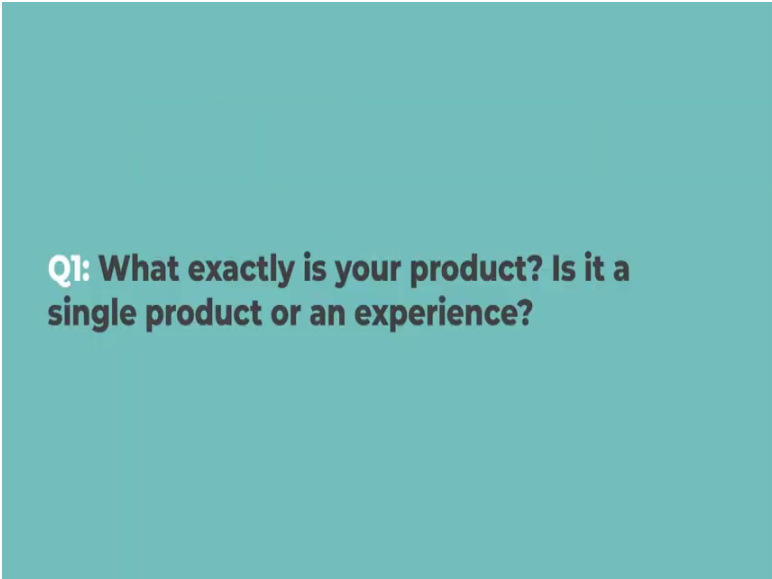
The next idea is something of a textured disc. First we thought that it can be a textured book, but you know we have been not interacting with the natural world for a while now. And I thought [FL] what if there is a disc there tiny protrusions on it that can imitate different textures from the natural world and then you can just focus that some that is something that would be an assistance to focusing your attention.

Using minimal visuals to focus attention to a point
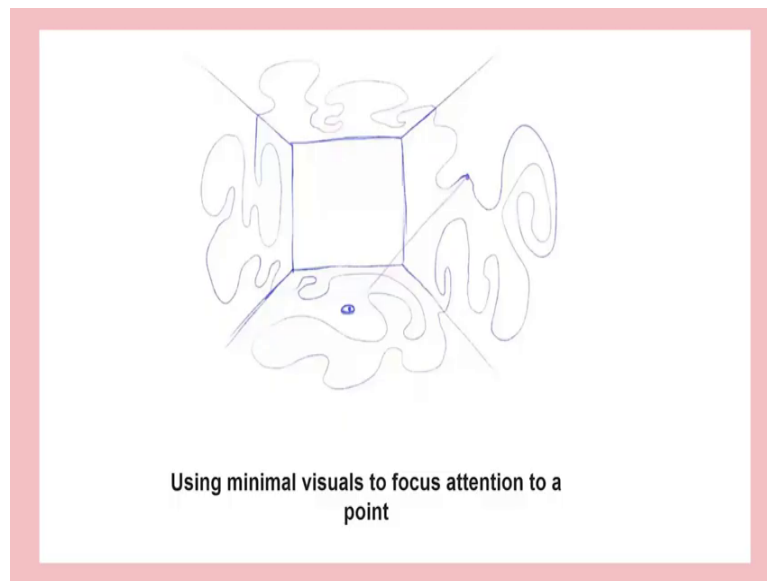
Yeah. So, this is more to do with light and sound. So, a device that you know points small light somewhere in the room and then the light you just have to look at the light wherever it is falling on the walls and it will guide you through the rope. So, that would be like one point that you get to focus on and meanwhile not think about anything else and so, this could be done in a dark room before sleeping or you know it could even have like a sound aspect to it where you know it has this whole guided experience of light and sound.

My question here would be are you planning to sell each of the these or you one of these easily or are you thinking about I am still not clear on whether it will be like an experience meaning it will be like a retreat or somewhere you know people sign up for 2-3 days and then you will make them go through various activities what kind of model are you thinking about?

That is a very interesting idea, but we were thinking of having one of the products. The thing is we ideated a lot, but now we do not know like, which would be the most successful one. So, [laughter] that is the dilemma.

Just wanted to add that since some of them are very small small products engaging different senses, so, it could be like a customizable kit, which people could choose. So, that was one thing we were thinking of.

Or maybe there could be a start product and other can be the coordinates. So, we were mainly because we are focusing on I mean this meditation mode of meditation. So, one thing can be our major product and other can be a coordinates with it.

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And who is your target persona? Because this definition was very broad, you know adults is very broad. Mean our there are people who are actively looking to do meditation, to do mindfulness related things you know they are reliving their stress and all. Where do you and whom would you want to target? Someone, who is already into all this, someone who is very new, someone when what kind of trigger event may make someone to do you know a search or look out for these solutions?

I think we are majorly looking in the sector for corporate people because they have the I mean they have a very caught up routine and I think if you ask I mean selecting the section of

corporates we can also get hold on people aging from 20 to 50 years or 60 years. So, that is a wide I mean section of people we can target. So.

You know it is very wide.

Yeah .

Targeting individuals or corporates?

I think we are targeting corporates as a whole.

Ok, so then you need to go and talk to whom?

The HR representatives?

So, even the people that directly the beneficiaries no? And for selling of course, the HR, but beneficiaries would be the key no, like people who will this concept work because the customers have to say that its good for them and then the HR will say ok this is good idea.

Who can influence parent to have a baby cream, a pediatrician could be recommender.

Yeah.

Comes with the authority and prescription, recommends that ok go ahead and buy this one. Then someone is a buyer who is holding the budget in corporate maybe the CFO is holding the budget.

Right.

So, whether we can actually purchase or do this thing in financial year.

The topic is.

Yeah.

Very exciting, but you know like the solutions are not matching. Of course, the solutions also very nice, but they have a lot of developmental angle in them right, the light one the end which is multiple lights flowing I may have some pointers with me laser pointers and I am moving and I can have this IoT devices, which sounds are coming.

Just to engage me right to take me out of the thought process, but even support for meditation you know like initially I thought we will just go to develop some wonderful you know like you know just a count or a small music rhythm or to get into a meditation mode you know even that is possible.

Right, that is a wonderful advice and we have taken.

Yeah.

These ideas into consideration, so, we will be integrating them.

Ok.

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You know we will go to the next team 4.

So, basically this is our problem statement that developmental problems are ongoing persistent and do not go away on their own. So, due to parents hectic working schedules they cannot focus on their infants or toddler to develop their hand-eye coordination or is obsessed with repetitive actions or has excessive aggressive behaviors.

Problem Statement

How can we teach kids with developmental problems about motor skill thinking process, shape and color understandsing and enhance their concentration power in a playful manner.

So, how can we teach these kids about motor skills, thinking process shape and color understanding and enhance their concentration power in a very playful manner.

Design Challenge

Developing motor skills for younger age group (6-12 yr), focussing on hand-eye coordination and enhance their concentration power in a playful way.

So, this is what we come up as a design problem or design challenge like developing motor skill for a younger age group let us say 6 to 12 years, focusing on eye-hand coordination and enhance their concentration power in a playful manner. So, we are just reaching out to our potential customers and reaching researching at the same time to understand better their needs and pain points. We want to be just customer oriented. We want to know if they are looking for a product service so that we are so that we know what they want, what should we keep in our product and what should we not.
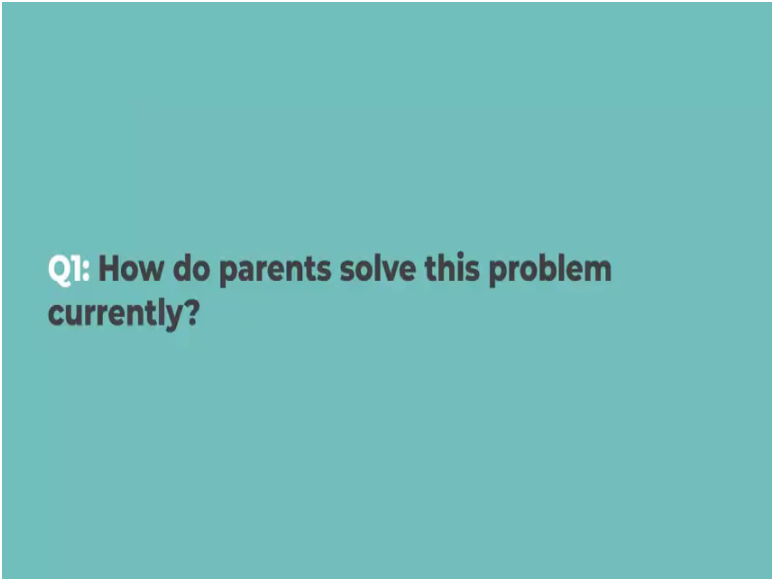
Target Customers

- Working Parents
- Daycare Firms

We will we are also reaching out to various families and parents who have a hectic working schedule. So, for this our target customer is working parents to convince them to buy a product for their kids. So, to help them with a product or game basically, which can even help them with developing their skill sets. Other than parents we would also like to look at the daycare firms, who take care of children's and keep them engaged while their parents are working. So, this is what our target customer looks like. So, we are at the same time researching more about what idea should be look at this point.
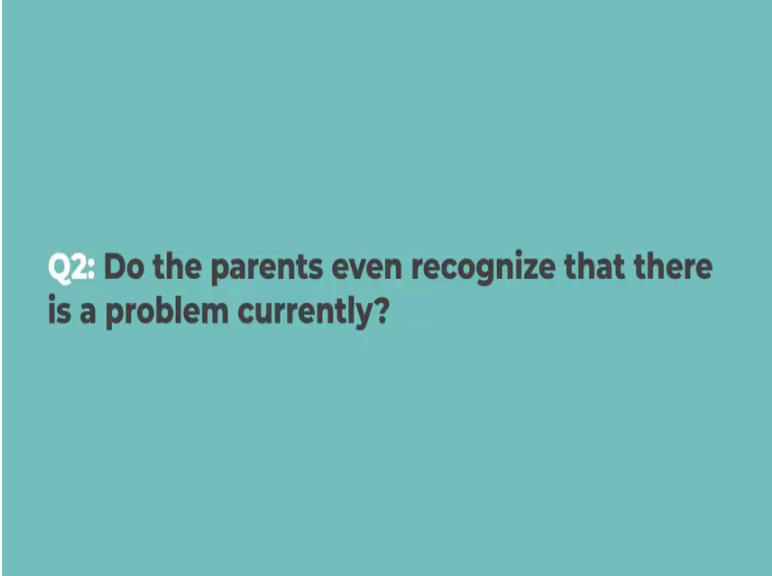
Q1: How do parents solve this problem currently?

So, if the target costumer is parents, how do they solve the problem today? What do they try to do to solve? When do they realize that this is something that needs to be solved, what kind of things are they trying, what kind of bouquet of offerings they have at their disposal, where do they get frustrated if they do not have those options?

At the moment we are still trying to reach out these families, but meanwhile we are looking at previous research papers about what how the parents tackle these situations. And parents have no way they just go out to work mostly the grandparents, who try take care if they can or there are maids who can maybe look after these kids. And kids mostly if they want to take a break they just go to go back to their laptops and play some virtual game and that is the break time.

Now, when I asked how do they solve the problem, what do they do, what options do they have, where do they get frustrated there are two angles to it. One angle is are there any

alternatives and how do we fear whether those alternatives are lacking in some way and then can we be better and all that.

But the main point the major point is there some action happening right now or have they neglected they do not even know they do not even realize what you said, did they realize or they show up you know they understand that this was a problem that this skill did not develop later.

That is a huge cause of concern for you to start in this area because we need to figure out how can we, where can we come in the process of their decision making. Whether I should talk to them at the time of birth, whether I should talk to them when they go for vaccine, whether I should talk to them through the pediatrician, who may help diagnose if they are coming to

them that ok, is that a is there any issue with my child and the pediatrician refers that ok, this might be a solution to help you with your work schedule and all that you know.

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Figure out when the design intervention should occur. To understand this you must understand the entire journey of the customer.

People might not realize that there is a problem until too late.

So, how do they get to know, how do they learn, how will they decide whether this is for them or not? We need to understand the whole process in their life journey. You need to talk to I understand, but this is what you need to focus on as well when you are talking to them.

To really know how they will think when they will think where you need to prompt them, where can you show up in their face and in front of them to notice that this might be something that they need to look at and what will they look at, how will they know and how will they decide you know whether they will, because.

So, in these things most people think that this problem will not happen to them everyone else will suffer, but somehow they are God's creation very unique creation and this cannot happen to them that is why people do all the stupid things that we do right.

Smoking cigarettes or binging or whatever right, it is not healthy, but we do not think that it will affect us or as much. We can surpass all the problems and solve them, they are fit and fine. When would we notice when would they notice about this, what will prompt them to notice? Some trigger has to be there.

Maybe that trigger could come from schools that we have been tracking the progress of your kid and this kid is not performing up to the mark in this these areas. So, I do not know. You need to talk to them and understand how and when you will intervene.

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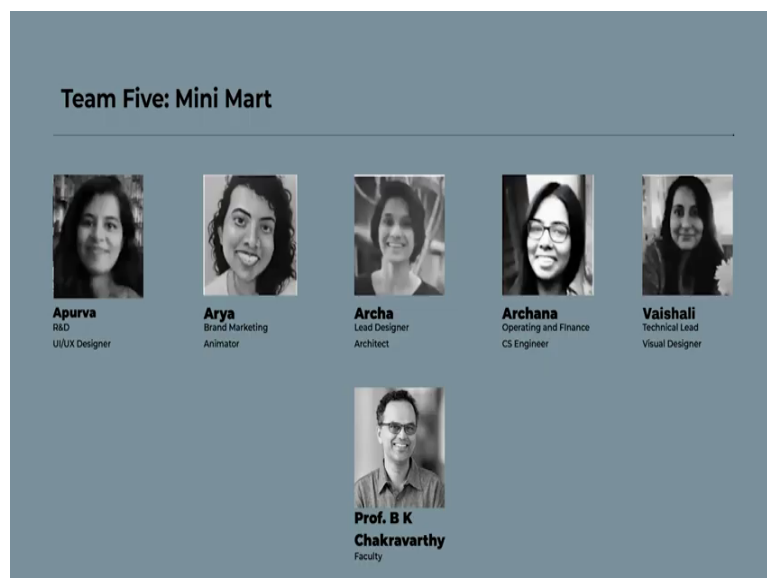
So, we will go to the next team 5.

Alright. So, we are group 5. It is me Apurva, Archana, Archa, Arya and Vaishali our focus is basically on elementary school students belonging to the rural area or lower income groups. We had actually started this project last year and we could not finish it completely. So, we are trying to refine it because we felt it has potential.

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Current State

Anxiety among students and is considered one of the toughest subjects.

Has increased the **dropout rate** in India.

Products- Emergence of online teaching apps and games.

Basically at the time we had a research debate about their current state, which is like the anxiety among students in a toughest subject which is like mathematics, that is what we thought when we interviewed and we read a few papers. Basically there are many apps or games emerging in it, but there is a gap here that most of the students or their families they do not have smartphones or internet connections as good as the urban population then most of

these apps are in the English language. So, they are having anxiety again you know learning English or something.

So, that is why that is again a barrier they have lack of information about these things. So, our goal is to reduce the anxiety in mathematics make it more fun loving and you know help in learning that particular subject. Also what we found out was maths was one of the main reasons why many children are dropout also because they find it difficult to learn because it involves practice and they find it intimidating basically. So, yes there is a lot of negative emotion among students.
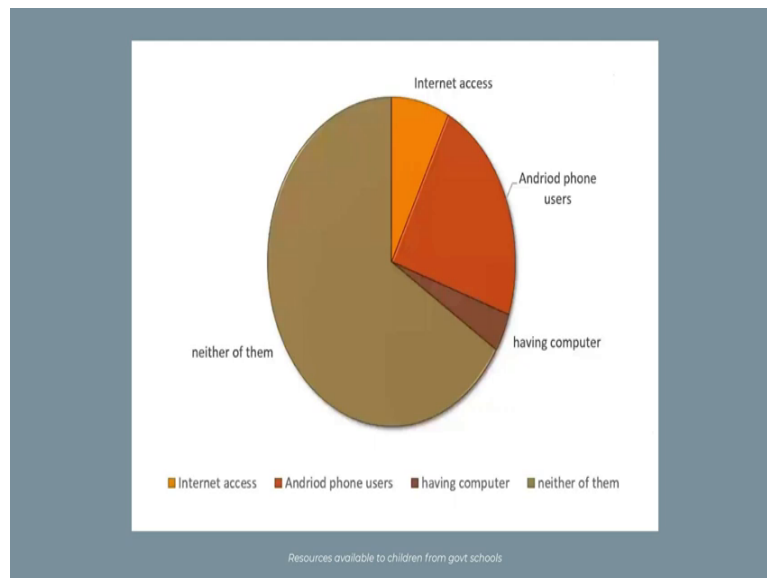
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Current State

Some students are very good at maths, but the ones who are not gifted face many challenges.

Some of them are very good. So, the ones who are very good at maths, they do not feel scared at all, but there are some who are so scared of the subject and that has created a notion or anxiety.

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Yeah. So, from our research that as the primary and secondary research what we found is the people in the rural as well as people in the who are belonging to the lower income family, who actually educate themselves in the government schools they are very less accessibility to these internet available devices. For example, android phones and computers. So, we thought like how our next main concentration was how can we design something for these group of people for the people who are from this particular sector.

Problem Statement

To design a solution for school students to make them understand the implementation of maths and help them use it in real life situations.

Ok. So, our problem statement is to design a solution for school students to make them understand the implementation of mathematics and had them use it in real life situations because mostly the notion is that we are just studying mathematics or formulas, but we do not understand how it is used in real life.

Problem Definition

Who: School students above 4th standard, teachers and parents

Why: Understanding maths

What: Games

Customers: Schools and parents

And our target is like the school students about the 4th standard teachers and parents. So, that teachers if the they find it easy to teach the subject and why is we are trying to help them understand maths; we are using games, board games most likely and the customers are actually the schools and parents. So, mostly we will be targeting on the schools because most of the learning should happen in the school and the parents should not be burdened with teaching the children again after they come home.

So, yes and I just want to add one point like we had spoken to a few teachers back then and the teachers were like or they have to create their own games for teaching children. So, every time it is like a added thing on them apart from the portion that they have to teach they have to also think of creative ways of coming up we are teaching a students from you know a

different understanding levels. So, if we have a readymade solution for them they can just teach them how to play the game and children can learn on their own.
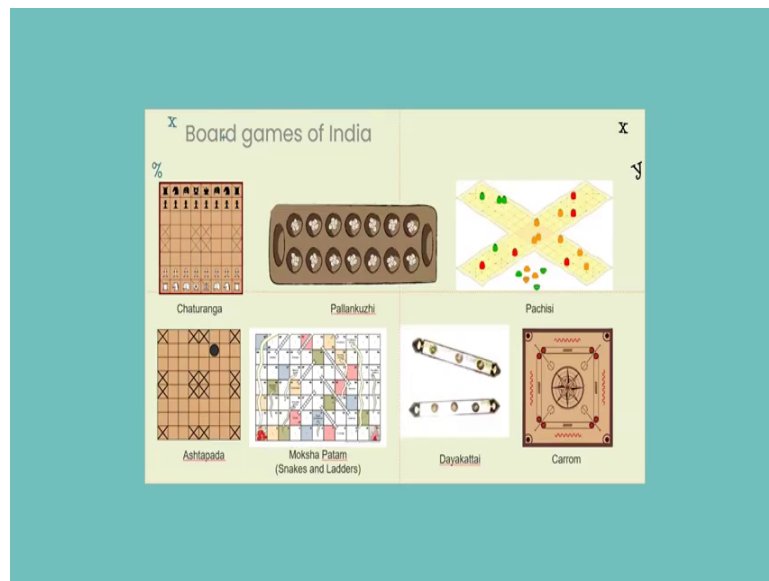
You also have the game ready?

We have a model like we actually participate in Toycathon. We were shortlisted for one among the best 23 in India.

Is it?

So, we had actually made a prototype for that. So.

You can show that a little bit so, yeah.

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This is one of the prototype and we had the other one also one that we submitted for the final Toycathon. We are still refining on that after that we want to go.

Yeah.

Yeah. Yeah.

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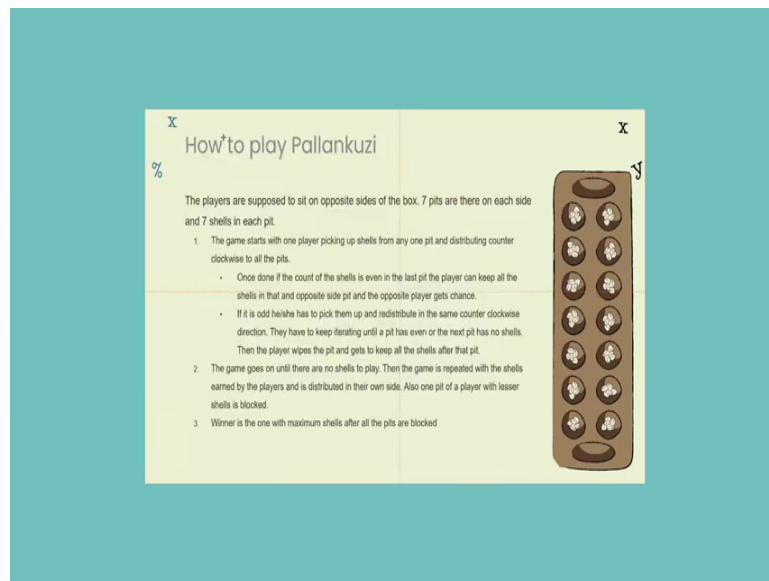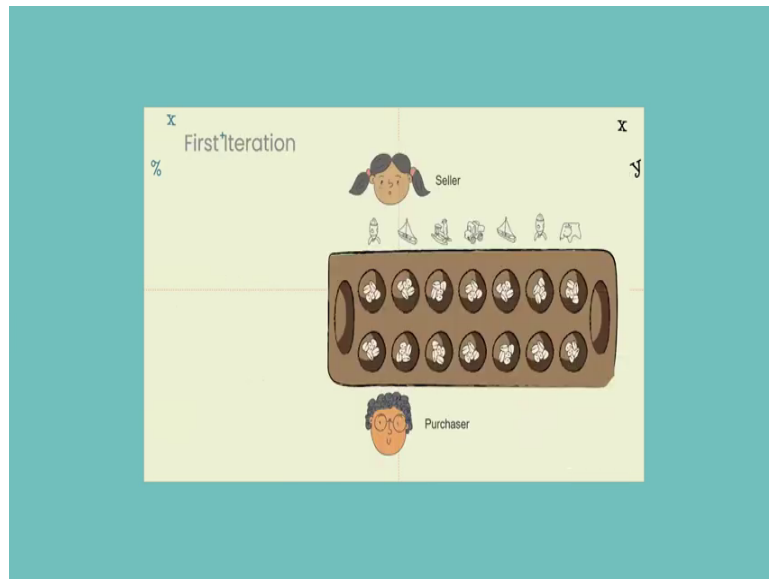Yeah sure. So, I just want to give a basic idea. We were looking at old Indian board games and we were seeing that because these are kind of getting people are forgetting them. So, we were studying these games and then we came up with Pallankuzhi and we studied about this game and basically the this game is actually proven to teach counting better. So, we thought that as we want to revive this game and also teach maths with it.

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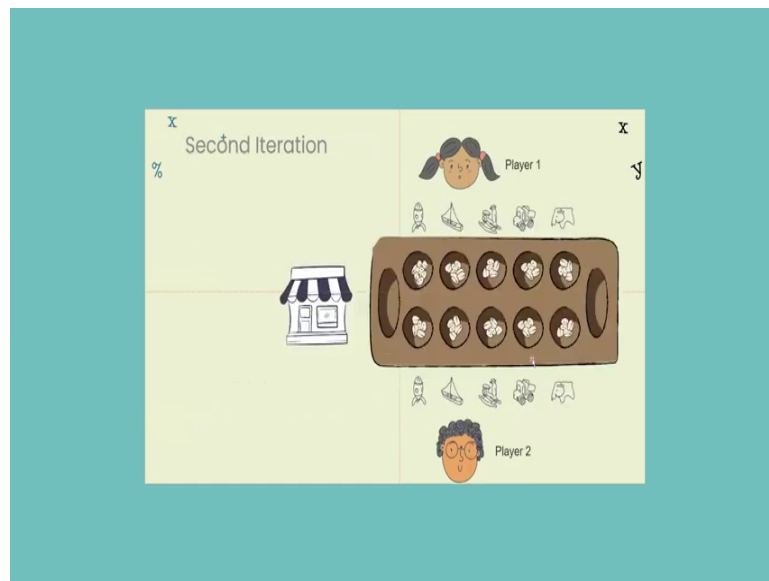
So, we sort of modified the game. This was our earlier game where we were trying to teach profit and loss and each student have toys which they have to sell to each other and through this other tactics like I will not explain the entire game, but through this they can sell the toys and we can understand if they are making a profit or a loss and with counting of the beads it would be easier for them

My guess is that you know if you are targeting schools and parents now in case of parents then.

We are not targeting on parents. We are only targeting on school and teachers here because this is for a rural

Good comment so.

Yeah and.

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Find the teachers who are more involved in finding solutions for these problems.

Helping these teachers provides a lot of value.

Leverage the gift potential of board games, aim at the potential customers who would gift the product to students.

Fine, then it is fine and I liked the way you phrased that there are some teachers, who are thinking of creative ways to help their students learn, but you need to figure out where do you find them, who are they if you know are all teachers like that or are there some who are more and too more eager or more driven or you know maybe the school management is such that they are tracking and they are encouraging such teachers more. So, such schools where such teachers are there.

So, if you target that and if you make them your champion you are ultimately helping them and that is a very strong value. If they are driven and you are helping them get what they want

to do get that done in a nice manner you are making their life easier and if it actually works. Definitely, I think that is a nice way to go.

A lot of people actually the toy association they are looking for new board games where there is value and they give as birthday gifts because there is huge market as birthday gifts to people. So, when I am looking business I am looking at how to improve my business, how to make more of those how to you know get them larger. So, I think that also has to now come into your thinking that you know whom do I target, where do I target and how can I make more.

That is a nice angle right. So, educated folks would like to gift games which also are enhancing learning. So, that could be a nice segment you know people who care about education. So, in gifting in buying games for their own kids, that may be a good segment.

On the teachers part try to detail it out where would you find do these teachers consume specific types of material, subscribe to some Facebook Pages to get more ideas or some other Reddit groups or attend some conferences present somewhere are these schools active in some way.

Can you really you know find some signals to spot them from the crowd that is the main thing we are looking for. So, that your discovery of them and their discovery of you where do they search for solutions where do they go and try to figure out what next can I do and how can someone or you suggest this solution to them. So, how do you discover them and how do they discover you that is the main thing that you need to figure out.

Ok. We will go to the next team. Thanks Sarin. Next team is team 6.

So, coming to a need identification. So, we went through a lot of ideas and then we sort of realized that one of the major things that we as kids also must have experienced or our parents at least did like, what our parents tell us is that they had feeding difficulties when we were toddlers was like 1 to 2 years of age.

Need Identification

Food Refusal
Prolonged Mealtimes
Stressful Mealtimes
Distractions
Lack of appropriate independent feeding
Failure to progress to advanced textures

And we had the signs and symptoms and few of the ones that we could understand from the research so far that we have done is there is a sort of food refusal and then there is prolonged mealtimes and then stressful mealtimes for both the kids and the parents or even the caretakers or school teachers who have to feed in the daycare centers.

And then there is distraction and added to that distraction for today's kids they hand over cellphones to the kids. So, that the mealtime gets faster and they eat as quick as possible. And then there is lack of appropriate independent feeding which is sort of a latent need that we realized that a lot of parents think that they can feed the kids till the age of 5 or at least 4.

But the sort of thing that they do not realize is that kids are capable enough to eat from the age of 1.5. They can eat on their own not on the spoons, but at least from the hands. So, they can inculcate that bit on them. And then there is a failure of progress on advanced textures

like you know starting from mashed potato to broccolis. So, that these were like few things that we could identify as needs.

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Problem Statement

How might we reimagine tangible ways to make an eating experience for toddlers (1-3 yrs) more interactive.

Coming to the problem statement; so, we sort of zeroed down on how could we reimagine a tangible way to make an eating experience for the toddlers from the age of 1 to 3 more interactive.

So, it is going to be product based, but we have not really thought of a product yet because there are too many things listed and we to make it sort of a business model we have to start with one need to start with, but we. So, there is a lot of scope to you know expand and advance, but looking at the number of needs that the toddlers as well as the parents have we need to zeroed down on one to at least show a prototype. So, that is where we are currently.

Stakeholders

Customer: Parents

User: Toddlers

And the customer is; obviously, the caregivers the parents and the teachers and the users would be the toddlers of the products that we would come up with and then just a bit of what, why, where and when and who.

I think the problem identification is spot on.

I mean yeah, this is (Refer Time: 46:08).

As you would have guessed we have faced the problem. I have seen people facing that problem in my circle.

The basic you know like I think the focus is very good, but I think you have to deep dive into the parents requirements and you know of course, if it is an if it is a gadget you know like a tablespoon combination I do not know what it is or a plate combination you have to you have to conceptualize you are out of the box idea too then we will have something to talk to right. So, we will go to the next team.

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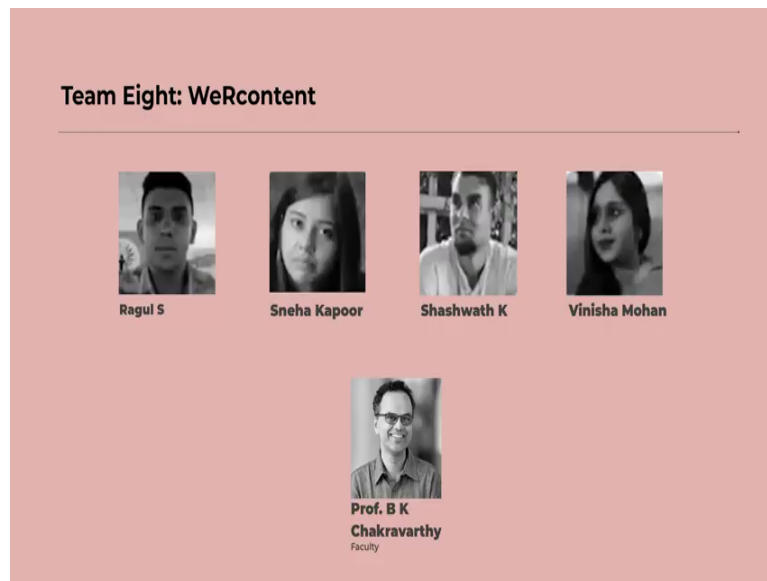
So, mainly me, Ragul, Sneha and Vinisha we are in a team and we are mainly focusing on VR for education and a specific to like 5 from class 5 to [FL] class 10 and we are mainly focusing on cognitive and psychomotive skills because we believe that [FL] time [FL] development [FL] of their brain where they learned they think about the cognitive modes and they learn about all the different aspects even they the psycho motive skills that develop they learned about speed distance and time all the movements about the coordination and manipulation and everything.

So, we are what we are trying to do is like if we can have a VR experience to them, so that it is very hard to actually remember few of the things for the cognitive sense and if we have made a VR experience for that they can actually easily relate that what we are they are doing. So, we are mainly focusing on that.

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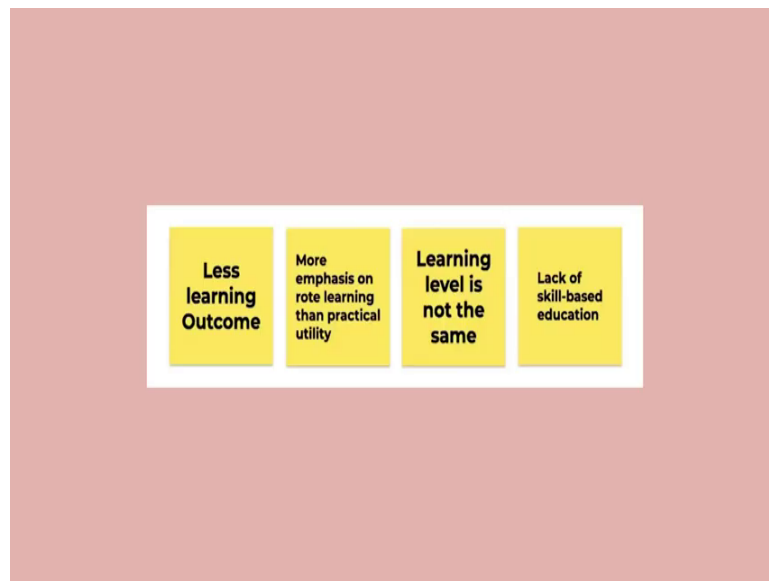
Some of the problems that we identified were people learn best by doing, but however, that is not happening a lot over here and if think the visceral reactions to the text and image content that is consumed I do not think that is powerful enough or sensory enough to form memories and remember all the content that is being consumed.

And the Indian education system from 1st standard to 12th has sort of turned into an assembly line model where you drop a knowledge and check if it is working and then drop in again and check and the same pattern has been repeated for so long right now. And blooms taxonomy has been used for some parts, but it is not used to its full capacity throughout the school systems.
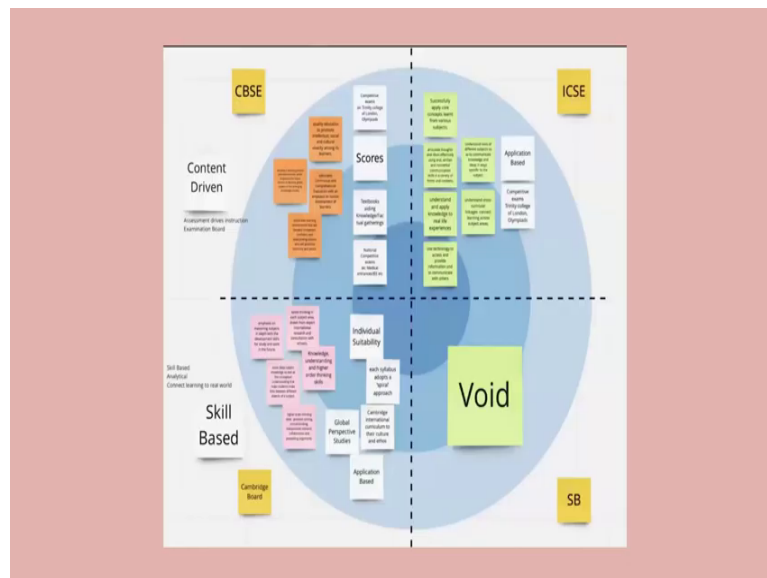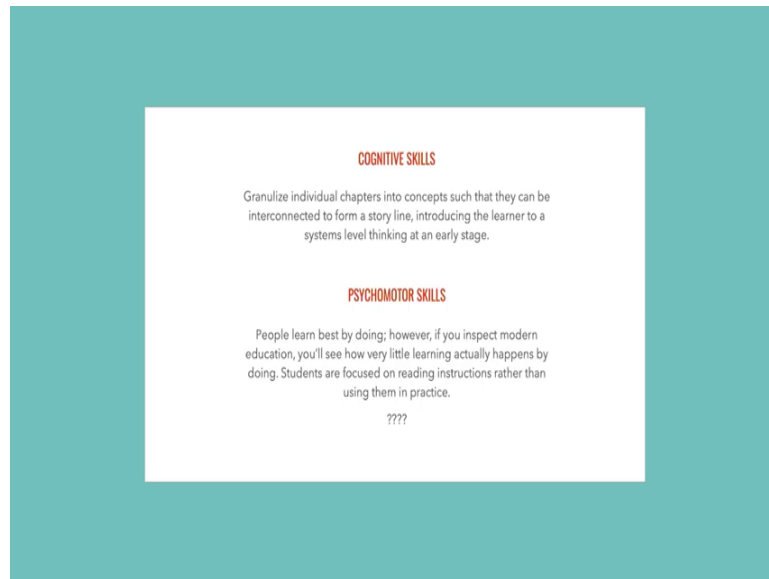
So, how did we come to this conclusion after we did our problem statement we actually deep dived into trying to understand what is the scenario of the Indian education system right now with the central boards. So, we did understand that with CBSE its more content driven with the international boards its more skill based and with ICSE it is more application based.

But if we can have a platform where all of these three things could be clubbed together in terms of giving the child or the student more cognitive and psycho motive psychomotor combined learning which will enhance the Child's capabilities is what we were aiming at.

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So, we thought of dividing chapters into concepts and actually focusing on the concepts rather than building a chapter wise module for them.
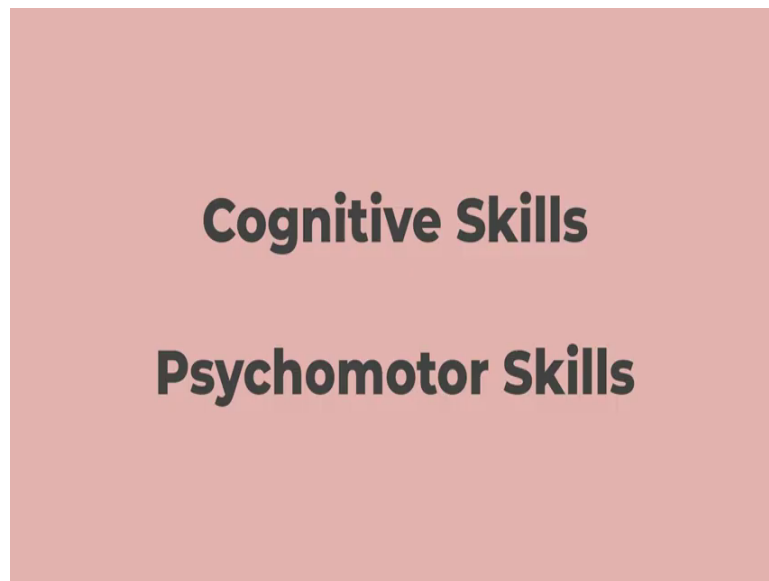
So, we actually want the children and environment to interact in a way that they develop their cognitive and psychomotor skills without just fixating on certain chapters and just reading and memorizing and giving tests we want them to feel that environment and enable them to visualize their surroundings and feel that surrounding.

Like if you are talking about evaporation then they will see that droplets going up and then coming down as rain and so, they will experience it that will make them remember and be a part of that environment. So, we are focusing on that currently. Actually Ragul and Vinisha have been working on this project for a while and they have come up with a prototype and they have done a research as well on this. So, maybe they can elaborate on that yeah.

Yeah we do have a working prototype which is a very rough prototype at the moment that we have actually we been able to experience in VR glasses that we have able to build right now.

It is a set of four modules that explains concept that require or that aids the use of virtual reality.

So, we picked virtual reality because we thought that that could be the platform where we could combine the cognitive and the psycho motive skills in one place where people will be able to move and understand the concept at the same time. Or people will be able to enhance their skills and remember and apply their cognitive skills the maximum. So, that is why we went ahead with VR. We still at the testing phase whatever we made right now is not being tested, but we do have a prototype in place.

Ok, alright.

So.

When you say people can move, are you planning to enable them to do this at home or at school?

We have not decided that. So, that is one aspect that we are still working on in terms of do.

Because then you need to.

What if they need independent.

Think about the space right, how much space do they need to be able to move without hitting on to things and breaking things.

Right. So, we still thinking about if it is going to be independent learning modules or if this could be something that can be adapted to schools like how Educom was once a one classroom activity, but then now it is become something that was applied to all the classrooms. So, if this is something that over the learning period or over a learning curve this can be adapted to a setting like that.

Ok.

Let us look at the business aspect very closely how will you sell, what are the costs involved. So, all this has to come in. So, we will go back go to team 7 Karan.

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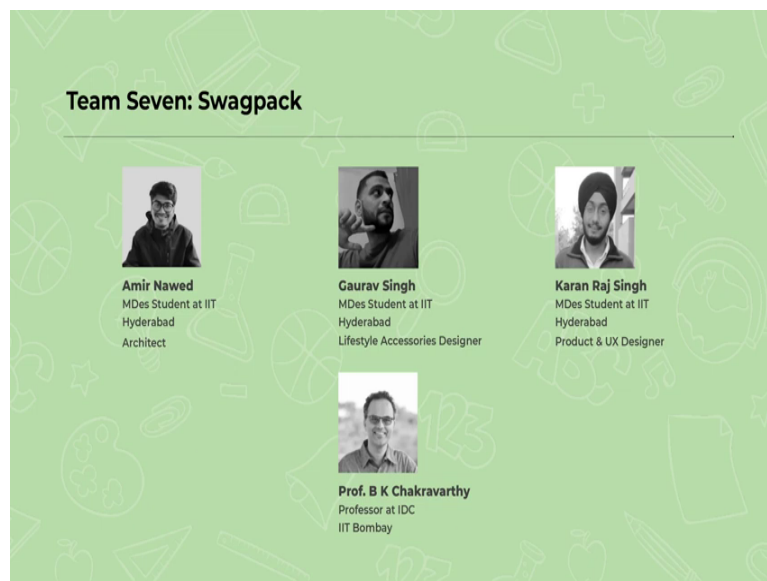
So, we started looking at the various day to day life problems that we might encounter in that particular segment we did some brainstorming and we put together all those problems that you can see on the screen. Later we narrowed down those problems focusing only on backpacks trying to think that what are the problems that might be a value additional, value proposition in this particular segment.
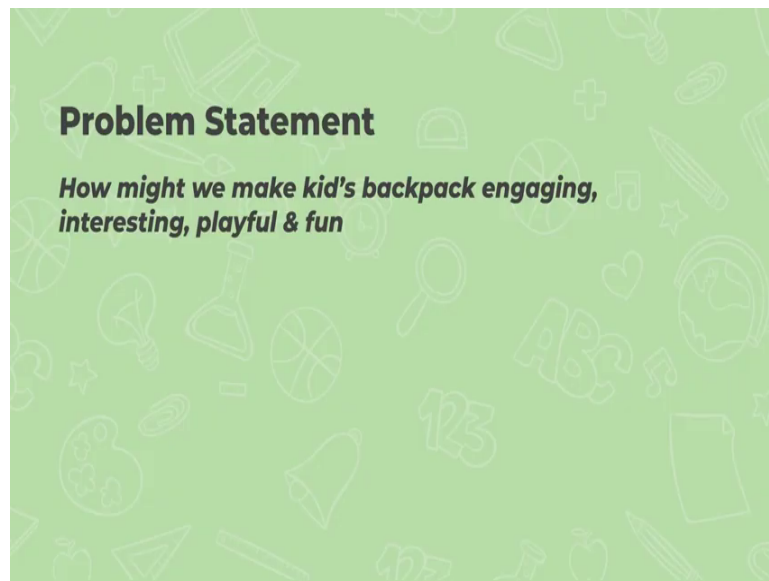
The problem statement that we finalized was how might we make kids backpack engaging interesting playful and fun. And the reason why because primary school kids carry a backpack on a daily basis and they interact with it every day in their classes, of course, the post-COVID time this has been changed a little bit, but again this is something that is going to stay.

And the target user is going to be two categories. The first one is the user, the children's age group from 5 to 12 and the buyers are going to be their parents.
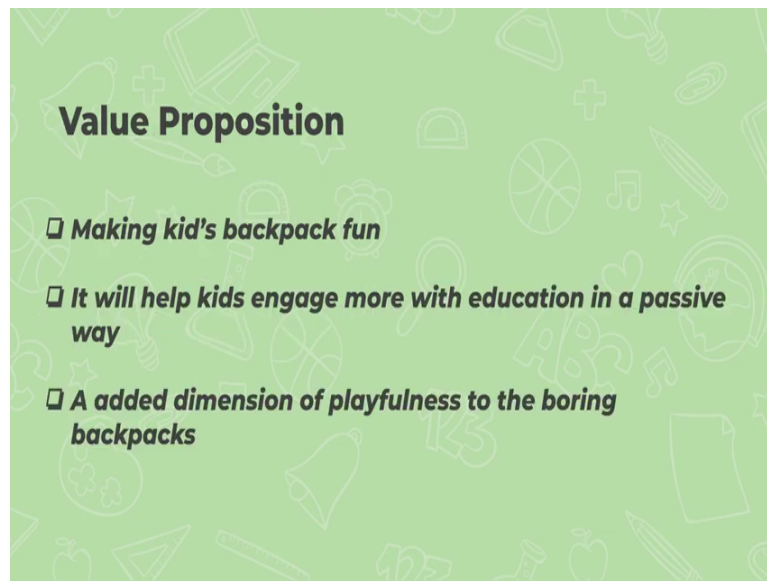
And we thought of what value proposition that can be added to the segment is that making kid's backpack fun it is going to help kids engage more with education in a passive way and we can add a dimension of playfulness to somewhat boring backpacks that we see on the market right now.

We thought of many ideas and the one that we narrowed it down to is the gamification like adding something that can kids can interact and play with the backpacks. So, we were thinking that there are two kinds of like entrepreneurships. One is like solving a particular problem and another segment is a problem is not something that is there, but a value proposition is there. For example, something related to arts and aesthetics.

Similar situation is happening in our particular case because if we look into functionality of backpack any kind of backpack would do the job more or less, but we are just adding a dimension of gamification to it adding a value proposition.

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The problem is not clear. I know that you want the backpacks to be engaging or in something for kids, but what is the problem that is not clear.

Sir, that actually that only we want to you know ask you know is it necessary that we need to solve a problem

Let us not use the word problem then, let us say the need. If the need is novelty that I want something new something else something other which is exciting which is new which no one

else has its unique could be its an emotional need then that is how we need to spin it, that is how you need to understand that what is the purchase behavior of this target population.

How frequently they buy, do they buy one backpack a year or multiple backpacks or when do they buy boring backpacks when do they buy engaging backpacks. But something you must have to serve. It could be a problem that you are solving, it could be a psychological emotional need that I just want something new, I am getting bored I need to shop.

We are not looking at directly at the problem, but we are looking at the opportunity that is there in the segment.

If it is going if it is big enough these kinds of ideas are difficult to get funded for early stage team if you show growth. If you are able to show very high growth very soon then maybe investors will get interested that ok, if there is something unique that you are doing you are able to show, but if you somehow do not lift off you know then investors will not be interested because there is nothing as such unique in a way that no one else can compete or come in very soon to replace you. So, your speed of execution will be your move.

In fact, students that you know today we got a very interesting point about the value proposition and the investor. See we you know it is there we know it will we know it made the business very good or whatever, but you know like we had to put all the you know all the jigsaw puzzle together to make it really you know work well. If you are a startup you know you are putting your own money and then you have this hunch that it is going to work maybe it is true, we are not at all you know contesting that.

But you know the purpose, the gamification, what it is getting or like you know Sarin was saying, a school now advertise that [FL] educational backpack [FL] school [FL] fees [FL]. So, if this you are targeting the schools to make this as a interesting way of bringing more you know more revenue to the school as well as more students to school because you are getting them intelligent gamification backpack which makes education better.

So, multiple things, multiple strategies. So, you know like you know like. So, please think about all that and we will catch up again. So, next team we have.

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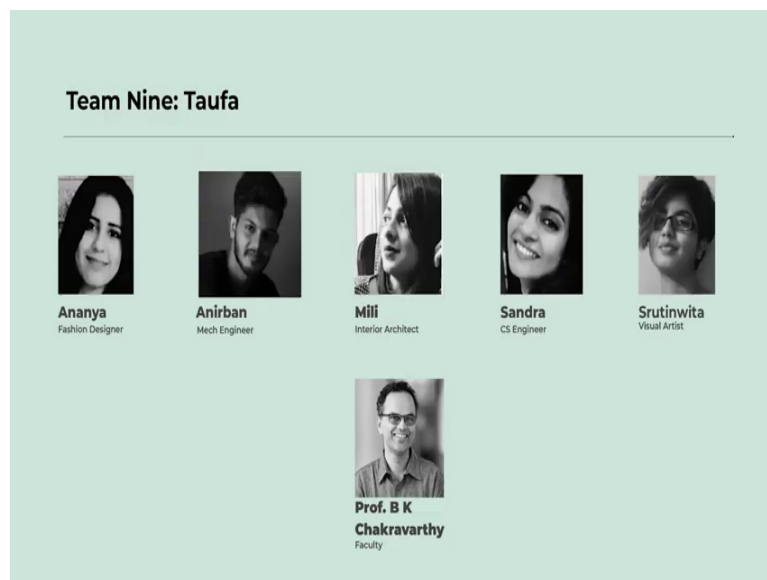
We will just show the you know the jam board discussions that we have been having. So, our basic idea is uplifting the crafts and craftsmen, artisans what they do. So, we figured not figured, but we are assuming the problem be they face is you know not proper merchandising not no proper advertisement, people do not know about it and in today's age nobody wants to buy you know wooden toys, people just want to buy a you know remote control toys. My brother he was gifted a drone on his 10th birthday.
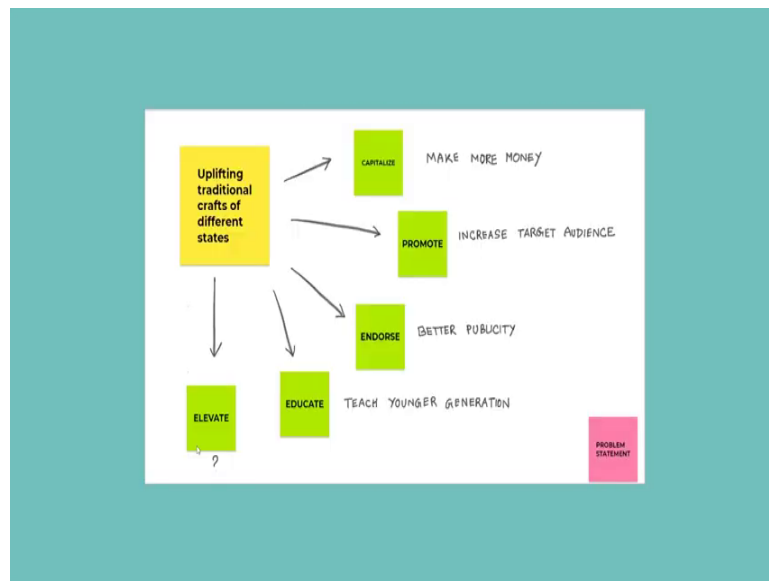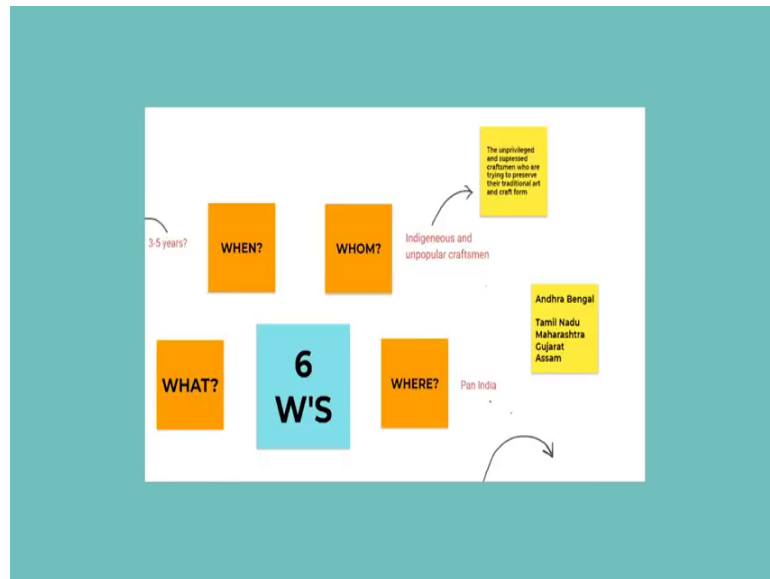
So, that is how that is the generation gap, why you know people do not want these kinds of toys. So, how do we market them in a way that you know people reach it and then they you know go back into that party [FL] toys [FL]. The concept of happy meals at McDonalds; so, they have this toy which ideally has no function at all.

People, but still kids adults whoever buys it they love it because it is just so cute and the idea of making it themselves you know putting that sticker over there now building a toy the same thing with kinder joy. So, why not market it in a way that you do not have a choice you get it and then when you get it you realize wow, this is so nice. Considering all this our idea is to capitalize the market of you know craftsmanship and you know aim that process helping them grow uplifting them yeah.
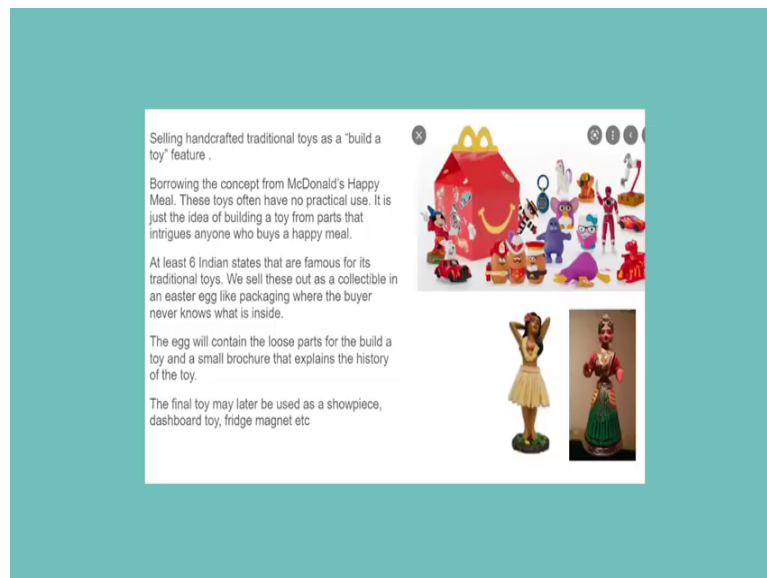
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So, the thing is that there are like many states in our country and each state has a different kind of tradition and culture within them, but children today's children's are more like inclined towards digitalized Sandra told. So, they want video games and everything. So, everyone is not getting to know what is authentic and like to their own state.

So, we want to promote that. So, that children buy something and they open it and then they see the pieces parts of this toy and then they assemble it.
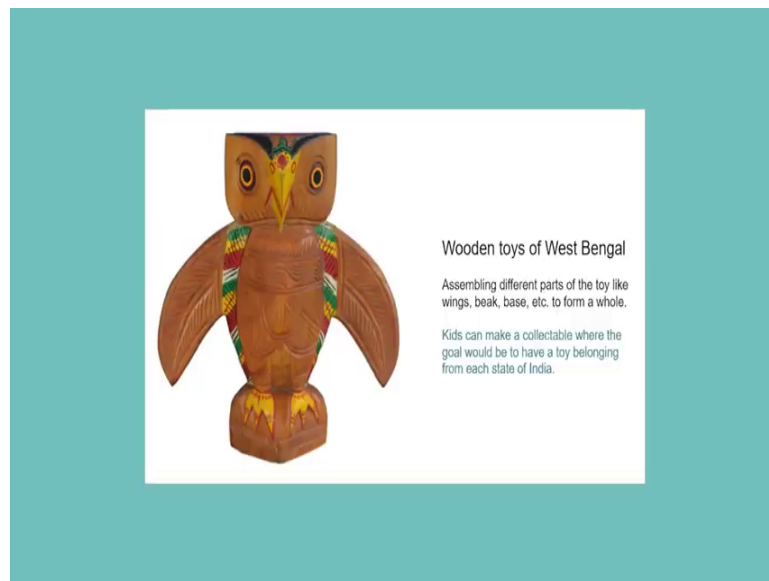
Like I am from Bengal. So, I have given an example of wooden owl [FL] toy. So, suppose the child opens it and it will have the beak separately the wing separately. So, he will also get a joy in assembling it and obviously, they will not throw it away right, it will be kept over there and they can collect it can be collectible and it like they can have a collection of all the states and like 28 states they can say that I have all the 28 collection. So, that is our marketing point.

But that our target customers would be schools teachers and parents and target users would be children and we are mainly focusing also on revival of the languishing crafts.
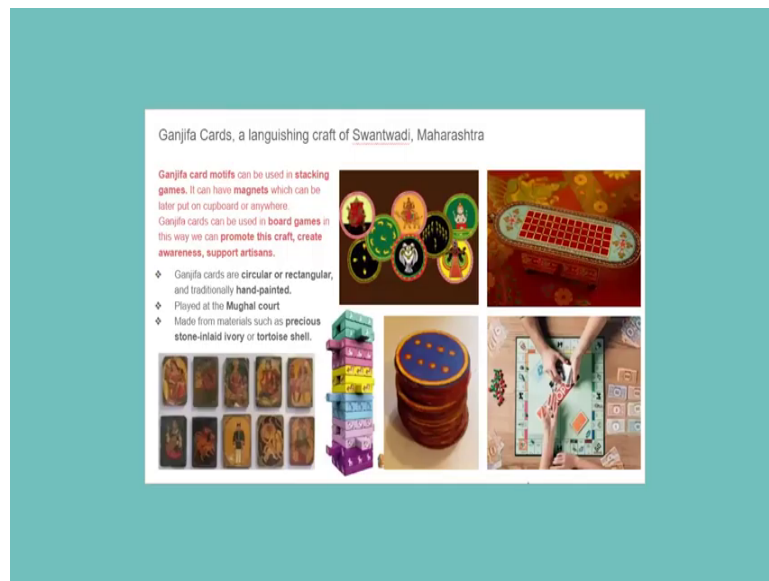
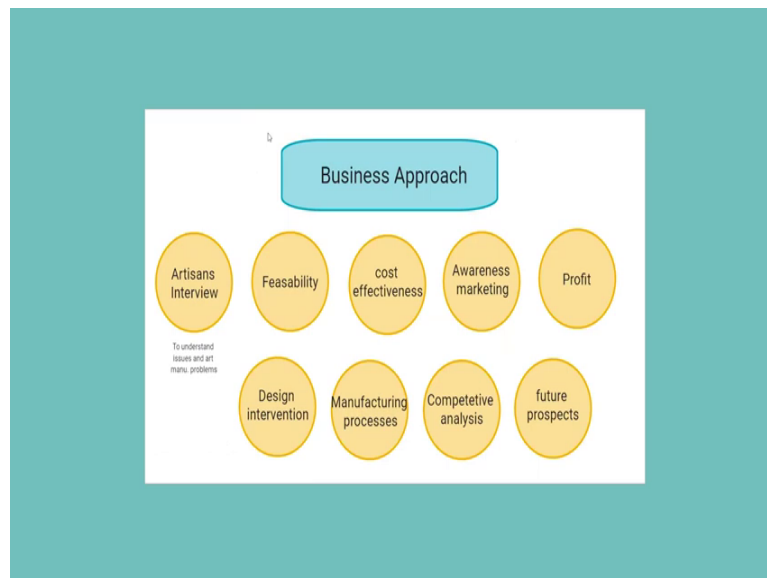So, for example, there is this craft called the Ganjifa Cards of Sawantwadi Maharashtra area. So, those cards can be used maybe in board games and those board games can be like marketed and this craft can be propagated through that.

So, we were also thinking about the languishing crafts also and our approach would be that we would be focusing on the cost effectiveness, feasibility and we would also be looking at the competitive analysis whether such kind of products are there in the market or not whether other people are doing similar kinds of things as well or not and also how we are going to manufacture it the manufacturing techniques.

Because the manufacturing techniques would be different because we are doing a design intervention and we will also be conducting artisan interviews. So, we still have to figure out like we have to finalize some of the crafts which may be taking forward

Is a very generic input I give to all such startups who are doing anything in handicrafts and all, sorting the supply chain may be a hugely valuable to the artisans and all and it will actually you know bring a lot of efficiency and lead to a lot of impact and all that.

(Refer Slide Time: 61:05)

Find the customers. There is no problem with finding and sourcing the crafts.

Kids do not care what toy they get. The product is aimed at the parents.

Position your product properly.

But your main problem is finding the customers for all these right? If you can sort that part India [FL] handicrafts [FL] talent [FL] you will get your supply chain [FL]. But getting the customer figuring out who will buy, where will they buy, how will they buy that is the most tricky part.

Kids love all these remote controlled and you know drones and all that most likely because that is what they are getting exposed to. If we would give them other types of toys and if

parents would spend time building those with them gives love, especially the younger kids love more when things are more activity oriented when things are more building oriented.

It is the parents who kill that creativity because they do not have time to spend with them. So, your main challenges are parents. So, you really need to interview how can you influence them what will make their mindset change and adapt to all these things when it may happen. Maybe it will happen when they are visiting Sikkim and then they are thinking [FL] yeah maybe I get a local toy. I do not I am just right now you know thinking out loud.

But you need to interview and understand how when they are buying what they are buying, why is it really motivated by the child's preference or that they have actually influenced the child's preference in such a way from the very get go that this is what the child prefers now, but kids really do not care.

When I remember a colleague telling me that he forgot to bring something when he was on a trip to some other city, so, he just took home the you know the mixer that you get with your coffee in the flight and the kids loved it [laughter] as a toy. Kids love playing with [FL] in the kitchen right they do not care. You give them anything cool and crazy and interesting they will love. So, it is the parents who are your struggle.

Yes. So, that is why we hope to market it in a way that they do not have a choice who when parents go out to buy toys for their kids they will obviously, go for the better ones you know the fancy classy ones, but when it is you know given out like a additional equipment like how happy my meal markets its toys right, it is a free thing, you cannot put your choice in it [FL] I want another toy.

You.

So.

You have to figure that out whether you want to devalue your product like that or you can actually get some premium and you can actually position it with a better toy or fancier toy you know. Why are you saying the other ones are fancy and this is not fancy maybe this is the fancier one.

That is a very big paradigm shift no students, because that could be a case because see for example, when these McDonalds and all does these toys they are in large quantities very very low cost, but whereas, when we go to our artisans and craftsmen the cost is going to be a little higher.

Yes.

It cannot be really given for free.

Yes.

[FL] free [FL]. It can be, remember you said the tourism [FL], it could be memorabilia where the kids will go and assemble memorabilia from a local location (Refer Time: 64:27) and last team please.

(Refer Slide Time: 64:28)

Hi, we are working. Currently this is the team.

Problem Statement

How might we bridge the generational gap between parents and young adults using gamification?

And we are working on the problem statement which is bridging the generational gap between parents and young adults using gamification.

About

Exploring boundaries within relationships through interactions.

Age is one big reason for the gap between generations. However, the main issues are in terms of thinking patterns & trends.

So, we did a lot of research about what are the basic blocks that parents or children or just people from two generations have and we are trying to explore that boundary and promoting interactions between the parents and their children so that there are certain blocks of communications like marriage or say sexuality or religion which are certain things that we need to or career that parents and children or just people from two generations need to talk about, but are uncomfortable bringing up conversations like this or asking such uncomfortable questions or just bringing up topics.
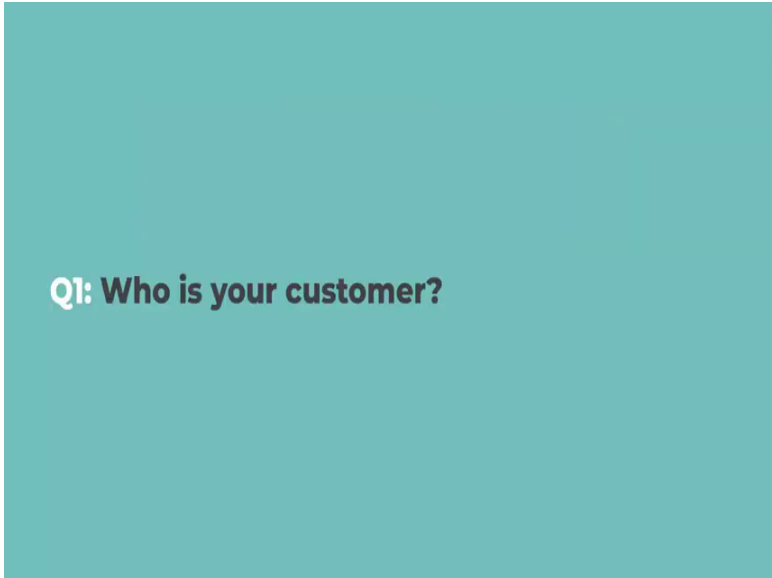
So, this game is going to be built around such interactions and such conversations. It would be more of an initiator than a place to discuss, but it would just bring out you know what

perceptions people have, what are they thinking and how can these gaps then be meant after realizing that you know what the thought process of the people are.

So, because I think generation we have categorized it as the something that is meant by age or that is you know defined by a certain age group, but it is mostly about the events that those people have shared in common and have formed an opinion based on those events. So, for us to know them and for them to know us it is important for us to share and talk about such things.

So, that you know it is easier in future in terms of coming to a conclusion on which everyone agrees and no one is rebelling out or no one is not liking a decision. So, things like that. So, basically mending generational gap through a game and initiating conversations on such topics is what we are going to focus on.

(Refer Slide Time: 66:52)

Q1: Who is your customer?

Who is the customer you are selling a game, what exactly are you planning to do?

So, the direct user would definitely be people who are wanting to have a conversation and since we are going to target different conversation topics, whoever is in need of those conversations can buy that, but apart from that also people generally tend to go to therapy for solving out such questions or needing an external help.

So, even then if it could be done through a game people who are giving therapy can just you know initiate this as a game that you play with each other and start a conversation. So, it could be that. It could also be you know a part of a maybe your school program or a college program where you are just trying to you know you see a student not doing that well and you are trying to help that student by initiating such conversations with their parents through like a game.

Direct users will use, but ultimately who will initiate that?

In India specifically it is kind of established that the children's like us and our parents we have a generational gap. So, probably it will be initiated by people like us who will introduce this to their parents.

When dealing with multiple personas, be careful not to deal with the problems of one group based on data about the other group.

Start small and have a focussed customer base. You can expand after being established.

We have different personas in customer segment. We want to solve one personas problem. We take evidence from the other persona, who may not even need to solve the problem because they are so proactive and they are already done. So, here for example, the challenge could be maybe it is not there, but you need to be careful that it does not happen is that you go and interview children whose family dynamic is such that if they wish they can even have the conversation. They play games they interact and do things right.

So, they will say yes we will play the game, but the ones who struggle they do not even play games or have such interaction to even initiate that conversation. So, how do you break that kind of you know situation that is we need to be careful about. The therapy angle is feasible, but then we need to worry and we need to interview the therapists to understand.

If there are any you know ratings or certifications or you know something official that needs to be there before they are able to recommend because ultimately it should not question their license and you know their profession. So, they need to comply with some regulations etcetera. So, figure out where it will be the easiest to start with the adoption will be quickest and you know.

And larger.

Larger. So.

See if you are looking at business [laughter] you are looking at business I want large number of customers and large adoption so that I can make money for my company to do rest of the.

Yeah.

Personas you know.

Yeah.

So, your focus has to be there. So, you all are very very you know the topics are damn good, but the depth and width are too wide. So, we basically focus you know like what (Refer Time: 70:01) Sarin saying like it could be just that children to parents and you know how your monetization will happen; the parents are so happy that they start giving tips to the software company which is developed this you know. You build money while you are playing this, you do not build money upfront.

Right.

As a example sir we can start with a young parent. For example, their kids are 8 standard or something. So, the icebreaker for the conversation can be career. So, they can start with the career aspect of it and as the kid grow up.

Yeah.

The parent can buy the expansion plans of marriage or any other things like the financial finance status and all that. So, as the kid grows up as the parent and kids relationship bonds they can add up the expansion plans some (Refer Time: 70:46).

[FL] only [FL] connection [FL] continuous phone [FL] game [FL] connection [FL]. So, you get lot of money. So, [FL] develop [FL] you give me additional things, start small have a very focused customer base very focused user very focused financial plan [FL]. If I was a parent and you know you are making me talk to my teenage son who is the US studying.

So, you have one customer who is ready here.

[FL] upfront [FL] game [FL] for examples. [FL] game [FL] then we will see other things [FL]. We will have multiple persona, then you capture the whole segments all the segments, but one segment you started with you know these two people the you know like you will do.

Sir persona is parents and children living in different cities.

Yeah.

It could be a WhatsApp plug-in game [FL].

Yeah.

[FL] WhatsApp plugin, large number of users at one go [FL] you will become something like BharatPe. Thanks (Refer Time: 71:50) Sarin for that.

Thank you.

Thank you.

Part and saying and this was wonderful and.

Same here.