Design Thinking
Professor Bala Ramadurai
Part 01
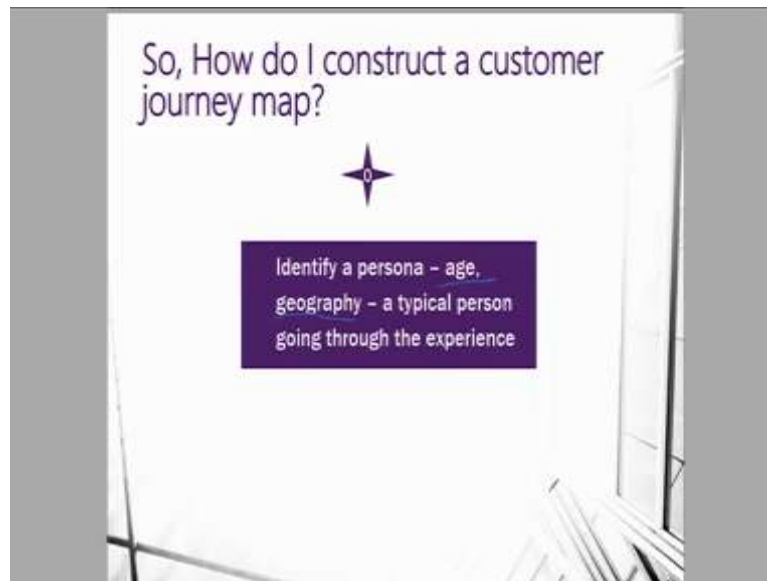**Empathize Workshop**

Professor:

Hello and welcome back to design thinking, the online course. Design thinking is about application; you have heard me talk about theory, about stories on design thinking, it's application as you have seen it or I have described to you and you visualized it in your head; but here I would like to demonstrate how it can be done, what better way to actually get the flavour of design thinking like seeing it in video here.

So here with me I have people who have experienced applying design thinking and practice in real life problems, real life situations, real life customers, real life people whom they have tried to help and they are still in that process of helping them. So we today will look at how to apply design thinking and in particular we look at the first stage of design thinking called empathize.

Empathize is the first and foremost and possibly the most important step in this entire journey that we have with you, so there I have four of my friends, colleagues, ex-students and people we bounce off ideas, I bounce of ideas with; they will sort of demonstrate to you how this part of Design Thinking is done. The customer journey mapping that I was talking to earlier about, customer journey mapping just to recap is as if you are going through the entire experience from the eyes of somebody that you are trying to help, don't let the word customer mislead you, they don't have to pay you; It's just somebody that you want to help in some way.

So we are going to demonstrate that with a case that my buddies here are going to work on. So over to these people and for before we start that I will tell you the major steps, just again recap; is the first step that we normally involve in customer journey mapping is to know who this person is: persona.

So the persona is in three parts one is the age of the person, second is the geography and third just for fun we will even name this person, ok. If this person is a male or female is important for your case go ahead and do that, but I do not insist, so if it is important for you definitely by all means you should call him or her and give it a particular sex and you can go with that otherwise it is not mandatory.

So that is the first and foremost that you have to be doing which is to identify the persona. Now again a tip here which I found it particularly useful is to have multiple personas who will be interacting with or whom you are going to track, whom you're going to shadow. So one could be a sixty year old gentleman the other could be a forty year old lady, so you could have these two types of personas and you could be shadowing them as well.

So that is as far as the persona is concerned, the second that we saw the last time was the phases that we tracked them.

So just to be very simple write down the activity that they are trying to map, so what happens before and after is also equally interesting because you want to find out how this person got around to doing this activity and what happens after the activity is done. So to simply put it, it is before the activity, during the activity and after the activity, so these are three distinct phases and you can be, you can even expand on it and give it more phases if you like but this is the bare minimum.

So another tip here; For each step before say for example it is good to have at least three steps in that just to get a full idea of what is going on; and same with after and same with during; again more the merrier, if you have seven different steps, eight different steps it is ok that is what your tracking, that is what your customer does, so be it. So bare minimum is 3, 3 and 3 so you will have a total of 9 steps in all, minimum number of 9 steps, so that is what we are going to do.

Now we use sticky notes as I am going to show you here, these are sticky notes that are very useful you will find; one of my friends was joking that Design Thinking is probably the single most reason why these sticky notes sell so much, so I am not here to advertise for sticky notes but they are pretty useful because you tear them off and you can put them back in and you can place them in one place, write whatever you have to write or do even draw stuff and move it around; it is very easy and with a table like what we have I am going to show you it is easy to move things around and the team can participate they can look at what is going on.

So it is pretty useful for that purpose; otherwise, yeah,good thing for me will be to invest in companies which are making this but for now we will stick to the uses of design thinking for this purpose of customer journey mapping, ok. So over to the team, the gentlemen here are who have discussed with me and have explained to me what is it that they are working on, we will do a customer journey map so you heard me talk about the steps and that is what we are going to do.

So I will be sort of a bug on the wall for most of the time I will just be observing what you guys are doing, in case there are things that you need help with I think that I can probably butt in and probably help, I will do that otherwise mostly you are sort of auto director, ok over see you guys. So here are my post it notes for you.

Siddharth Maturi (CEO, Knoin Electronics):

So guys, what we are going to do now is we are going to consider school going student's life and we are going to create a persona around a student and try and see what activities he is going through in a school, probably find out any problems in his activities like sir said we are going to jot them down as before, during and after; and see how we can map them with respect to the customer. So we will start off by creating the persona for the student.

Nithin Kurian (COO, Knoin Electronics):

Right,let us give the name for a student first, yeah can we name him Sam?

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Siddharth Maturi (CEO, Knoin Electronics:

Yeah, let us name him Sam.

Nithin Kurian (COO, Knoin Electronics):

And he is definitely a school going student, so probably his age would be somewhere around 14, 15.

Siddharth Maturi (CEO, Knoin Electronics:

Right

Nithin Kurian (COO, Knoin Electronics):

So let us have Sam with age 14 years, let them be studying in an international school in Pune, India. So we have I think our first persona, so in school what would be the core activity that Sam would be doing?

Siddharth Maturi (CEO, Knoin Electronics):

Before getting into the activities we will just make a different post of this persona, ok so we can do everything we need him, ok right.

Nithin Kurian (COO, Knoin Electronics):

That is our first persona, ok.

Siddharth Maturi (CEO, Knoin Electronics):

So that is our first persona, now let us get into some activities.

Nithin Kurian (COO, Knoin Electronics):

Activities that he is doing, ok.

Siddharth Maturi (CEO, Knoin Electronics):

Probably most important thing in a school for a student is taking down notes, right.

Nithin Kurian (COO, Knoin Electronics):

Notes, right.

Siddharth Maturi (CEO, Knoin Electronics):

So let us consider the activity of a student taking down notes while a teacher is teaching in a class.

Nithin Kurian (COO, Knoin Electronics):

Ok. So the activity first activity that we are mapping with Sam would be taking notes in class, yeah. So let us keep that activity just underneath.

Siddharth Maturi (CEO, Knoin Electronics):

Yes.

Nithin Kurian (COO, Knoin Electronics):

Sam. So now like sir mentioned we have to have three different scenarios related to that activity.

Siddharth Maturi (CEO, Knoin Electronics):

Right.

Nithin Kurian (COO, Knoin Electronics):

What Sam does before that activity takes place, during that activity takes place and after that activity. So what would be some of the activities that Sam does before he actually takes notes while he is in class?

Shyam Paul M:

So in class like is first Sam will be opening his bag, taking his notes out.

Nithin Kurian (COO, Knoin Electronics):

Ok. Some of the activities that happened before this actual process of taking notes in class is that a teacher would enter the class that would be something that happens before; Then teacher would either ask the students to take out their notebooks and textbooks or they themselves

would have the notes and texts ready; that would be activity number 2, teacher instruction and notes, right? And what else? After that probably the teacher would start instructions, right start teaching then.

Siddharth Maturi (CEO, Knoin Electronics):

And eventually Sam tries to get what the teacher is teaching and tries to jot down some notes in his note book, right.

Nithin Kurian (COO, Knoin Electronics):

In his note book.

Suprativ Das (CTO, Knoin Electronics):

Is the profile of the teacher, like which subject the teacher might be teaching, is that important? In this case, in this activity, before the activity starts. Imagine a teacher who comes inside the classroom, he might be a science teacher or a maths teacher, say will that matter in this case?

Nithin Kurian (COO, Knoin Electronics):

Matter in the way he is doing his particular activity, yeah I think that might be something.

Suprativ Das (CTO, Knoin Electronics):

What topics.

Nithin Kurian (COO, Knoin Electronics):

That will affect the way he takes notes in class, right.

Suprativ Das (CTO, Knoin Electronics):

Yes

Siddharth Maturi (CEO, Knoin Electronics):

Probably for a language class he would be more into text books, poetry textbooks and such the kind of books and where it when it comes back to mathematics it is more of writing down practices, rough work.

Nithin Kurian (COO, Knoin Electronics):

Yeah, so in our class what I have seen some of the students in class writing in a certain way for languages and for actual notes. Imagine I am, I have seen my peers writing on the textbook when it is a language class; for example if it is, if the teacher is teaching a poem then probably the notes would be jotted down on top of the actual prose or the content whereas if it is a maths class he will probably have it is notes right written on a notebook, so he has brought out a good point.

So, yeah the Subject; and how the note-taking activity will take this.

Siddharth Maturi (CEO, Knoin Electronics):

Depending on a subject.

Nithin Kurian (COO, Knoin Electronics):

Depending on a subject.

Siddharth Maturi (CEO, Knoin Electronics):

I think this we can keep it as before the activity would happen

Nithin Kurian (COO, Knoin Electronics):

So that would be the list of activities that would happen, probably. Right?

Siddharth Maturi (CEO, Knoin Electronics):

Probably the list of tasks that would happens before the activity, right.

Siddharth Maturi (CEO, Knoin Electronics):

So now we can move on to what would happen while the activity is taking place.

Professor:

One tip, let me but in here; One tip I can offer here is that if you can write down one activity per note, that; I mean here you have written down four activities, so you can have four notes

with each activity there; It sort of lays out what the sequence of events is, ok like a story, so this scene happens then this happens then this happen. so that really helps; In case you get an insight later or you go to the field and you observe that hey, he actually, there is a subject teacher walks in and he does something different, then I can actually swap the notes, your post-it notes and then then that makes sense in there from the view.

Siddharth Maturi (CEO, Knoin Electronics):

So yes we will again.

Professor:

Yeah, good idea to tag it as 'Before'. Yeah that is a good idea.

Nithin Kurian (COO, Knoin Electronics):

So we will remove this one off

Professor:

Yeah, but as starting point I think it is good so that you have written it down but I would recommend you taking one per, yeah.

Siddharth Maturi (CEO, Knoin Electronics):

So then.

Nithin Kurian (COO, Knoin Electronics):

Teacher enters the class then there is a teacher instruction or students take out their notebooks and relevant textbooks from their bag would be the second activity that we identified.

Siddharth Maturi (CEO, Knoin Electronics):

Teacher instruction or books off the bag.

Nithin Kurian (COO, Knoin Electronics):

Books off the bag, yes. Then the next step would be the teacher starts instruction or teaching and.

Siddharth Maturi (CEO, Knoin Electronics):

Then student taking down notes.

Nithin Kurian (COO, Knoin Electronics):

Or student comprehending what needs to be; because the activity is before taking the notes, right. So the student comprehending and coming to an understanding of what needs to be written.

Siddharth Maturi (CEO, Knoin Electronics):

Right, so we have come up with four steps what Sam would be doing before the activity of taking notes in class, so now.

Nithin Kurian (COO, Knoin Electronics):

Great! Sir are we on the right track till now?

Professor:

Thumb is up.

Nithin Kurian (COO, Knoin Electronics):

Perfect.

Siddharth Maturi (CEO, Knoin Electronics):

So then we can move on to the 'During' timeline of the activity. So what would be the first step Sam would be doing while taking down notes, probably take out his pen?

Nithin Kurian (COO, Knoin Electronics):

Yes, I think the tool would be really important

Siddharth Maturi (CEO, Knoin Electronics):

Open the notebook and the pen.

Student 4:

Take the note.

Suprativ Das (CTO, Knoin Electronics):

I think there is one more point, like, the first thing might be selecting the book or the pen that you might have, for example, if you might carry, Sam might carry a lot of notebooks, right? and all the notebooks might be in a different sequence or it might be a topic in a different manner, so imagine it is a maths class and the teacher does not want, the teacher will never want Sam to take out his science notebook, so selecting the notebook also becomes an activity.

Shyam Paul M:

And I think there will be different notebooks for each subject.

Nithin Kurian (COO, Knoin Electronics):

Agree, but that would be pretty much covered in.

Siddharth Maturi (CEO, Knoin Electronics):

Teacher instruction or books off the bag, that would be a activity before taking down the notes

Nithin Kurian (COO, Knoin Electronics):

Before taking down the notes, him selecting which particular notebook need to be in this particular classes.

Professor:

If you consider that to be a serious problem you can note that down saying during this step he is not so happy because he has to go through five different notebooks or seven different textbooks before he can land up on the right book, so that could be a problem that you can write, note down somewhere.

Nithin Kurian (COO, Knoin Electronics):

Ok.

Professor:

That's actually you are doing fact finding as well, right one is the fact that you are shadowing this person but your ulterior motive is to see you know where can we help this the Sam in his life, so that could be one place.

Nithin Kurian (COO, Knoin Electronics):

Absolutely.

Siddharth Maturi (CEO, Knoin Electronics):

So yes we will take that other point.

Professor:

Yeah put it as sub, yeah perfect.

Nithin Kurian (COO, Knoin Electronics):

First activity would probably be him having to take out his pen.

Siddharth Maturi (CEO, Knoin Electronics):

Writing tool and writing a pen and open his book, this would be first step of 'During', now next would be.

Nithin Kurian (COO, Knoin Electronics):

Next would probably be either him continuing with what is already writing or him having to look back or check as to what he had written earlier relevant to that particular topic that was taught in class.

Siddharth Maturi (CEO, Knoin Electronics):

Right, so teacher might ask where did we end up in our last class and maybe Sam might come up with, he might go back to his previous pages, verify his previous chapter notes and come back.

Nithin Kurian (COO, Knoin Electronics):

Come back to write down his new notes.

Siddharth Maturi (CEO, Knoin Electronics):

I think verification of previous class's notes.

Nithin Kurian (COO, Knoin Electronics):

Notes might be an activity that he might do in this particular.

Suprativ Das (CTO, Knoin Electronics):

Recap of the classes.

Siddharth Maturi (CEO, Knoin Electronics):

Recap would be a teacher's choice again, yeah it is not an activity under Sam taking down notes in classes. So verification of previous notes.

Nithin Kurian (COO, Knoin Electronics):

Next thing would be him having to have a fresh page once his current page is done, he would probably choose to start off with a fresh page.

Siddharth Maturi (CEO, Knoin Electronics:

So selecting the page to start is current notes.

Nithin Kurian (COO, Knoin Electronics):

Next yeah, next line, next set of notes.

Siddharth Maturi (CEO, Knoin Electronics:

Selecting a page to write his next notes.

Nithin Kurian (COO, Knoin Electronics):

I think this would pretty must be an activity that he keeps going back and forth a new page and going back to his old page.

Siddharth Maturi (CEO, Knoin Electronics:

Probably depending on the chapter what teacher teaches, he might be taking down a written content or a diagram, so that is.

Nithin Kurian (COO, Knoin Electronics):

Right.

Suprativ Das (CTO, Knoin Electronics):

Graphical illustration.

Siddharth Maturi (CEO, Knoin Electronics):

Graphical illustration or a written content, so it would be like depending on the chapter or the teachers. So noting down either written content or graphical representations, representations like diagrams.

Professor:

Yeah I was going to say if you have a simpler word for that.

Siddharth Maturi (CEO, Knoin Electronics:

It came to me later so I had to add that. So I think we have got four activities during the taking down of notes any suggestions with respect to that.

Professor:

You are ok, you are cool.

Siddharth Maturi (CEO, Knoin Electronics):

Cool, so then we can move on to the 'After' timeline of taking down notes. So what would be Sam doing after he completes taking down his notes, probably.

Nithin Kurian (COO, Knoin Electronics):

Typically I guess there would be an end of instruction from the teacher is when Sam would probably think that now it's time up for me to stop my taking down of notes; So teacher would end his or her instruction would be one step.

Siddharth Maturi (CEO, Knoin Electronics):

So following teacher's instruction to stop

Nithin Kurian (COO, Knoin Electronics):

Again I think it would be like the one that we have mapped, like, either it could be a teacher instruction saying that I have stopped my class for today or it could be an automatic understanding from the student's side that today's instruction is complete.

Siddharth Maturi (CEO, Knoin Electronics):

Then probably might verify what he's written.

Nithin Kurian (COO, Knoin Electronics):

Verify what he's written, that might be something that he does.

Siddharth Maturi (CEO, Knoin Electronics):

Suprativ Das (CTO, Knoin Electronics):

He might want to.

Siddharth Maturi (CEO, Knoin Electronics):

Goes through his handwriting whether he has written neatly, his diagrams ended up neatly or not maybe he needs to give it to someone else to do it properly.

Suprativ Das (CTO, Knoin Electronics):

Probably someone else.

Professor:

Personal experience.

Siddharth Maturi (CEO, Knoin Electronics):

More like it.

Nithin Kurian (COO, Knoin Electronics):

So that is a possibility we can keep that as an activity, we'll see.

Professor:

I think you need to check this point with market, with real customers, this is checked. So this is from your own experience, good let us document that because this first step is about documenting it from your own experience and from what you observed, so that is there. The next is to actually go into the market with your target segment and see what do they actually do and then these things may change, you may add a few things also, ok.

Nithin Kurian (COO, Knoin Electronics):

Right.

Siddharth Maturi (CEO, Knoin Electronics):

Right sir. Probably verifying his notes with all, cross checking his notes from that particular class.

Shyam Paul M:

And if he feels like underlining or marking something, important points.

Nithin Kurian (COO, Knoin Electronics):

Yeah he might, again all comes under this, yeah right.

Siddharth Maturi (CEO, Knoin Electronics):

So this is step 2.

Nithin Kurian (COO, Knoin Electronics):

And then we guess.

Suprativ Das (CTO, Knoin Electronics):

I think there'd be two consequences, either he can put the things in his bag or he can share those notes with someone else. For example imagine I am a slow writer and someone is a fast

writer, he completes the things fast, I might skip out some topics, right, so I might need to write those things second.

Nithin Kurian (COO, Knoin Electronics):

Right, so he might either share what he has written if he is a fast writer with someone who is not as fast and wanted to check what was taken down by him is that is very well an option.

Siddharth Maturi (CEO, Knoin Electronics):

Either share he is notes.

Nithin Kurian (COO, Knoin Electronics):

Or so I think we can put that as the two alternate activities.

Professor:

Why not you can fork it also.

Siddharth Maturi (CEO, Knoin Electronics):

Either share notes or.

Nithin Kurian (COO, Knoin Electronics):

Close that particular notebook and keep it back in the bag.

Suprativ Das (CTO, Knoin Electronics):

Apart from this, do we, can we think the assessments, the class assessments that the teacher gives can be a post activity.

Nithin Kurian (COO, Knoin Electronics):

Then I think that would change the activity itself right, this would be probably something that is very personal for him.

Professor:

So suggestion would be to qualify this; taking notes in a non-assessment situation, ok, good point, because the scenario changes and what the steps are will change based on the activity. As you observe it, without any solutions we have done that. One last step which is important is to track the emotional status of your, of the student, of Sam, so there are times when he is happy, with wow this is great! okay that I could do this and there are times when he is not so happy, meaning sad and you jot that down and there is a third one where there is no emotion. For me the example that I probably gave you in class is getting down from a bus, there is no emotion associated with getting down; you have got down, you have got down, right.

So that is it, so here also you can see from your own observations or your own personal experience, there are places where you start wow this is great, this is nice, but now, not something that I am happy about, ok, so that's something that can you mark with a simple thing like a smiley or a sad face on the post-it itself.

Nithin Kurian (COO, Knoin Electronics):

Teacher entering the class would probably qualify as smiley or.

Professor:

Sorry.

Siddharth Maturi (CEO, Knoin Electronics):

Let us take, consider Sam likes writing.

Nithin Kurian (COO, Knoin Electronics):

Likes writing and likes to be in class and learn, yeah.

Yeah so that is the ideal situation.

Nithin Kurian (COO, Knoin Electronics):

Ideal situation that we want to map. So let us give a happy smiley when the teacher enters, right.

Siddharth Maturi (CEO, Knoin Electronics):

That is happy Sam.

Suprativ Das (CTO, Knoin Electronics):

That is great.

Siddharth Maturi (CEO, Knoin Electronics):

Then teacher's instruction for books off the bag, maybe this is not, yeah, he gets to know that it is not going to be a free class, yeah.

Nithin Kurian (COO, Knoin Electronics):

So it could be a sad emoji there.

Shyam Paul M:

He might be taking a lot of notes.

Suprativ Das (CTO, Knoin Electronics):

Moderate emoji, right.

Nithin Kurian (COO, Knoin Electronics):

And other thing is see he has to go through all his list of textbooks and notebooks; find out where this particular teacher's book, notebook is, take that out, come to the relevant page.

Suprativ Das (CTO, Knoin Electronics):

No, so Sam cannot be happy like this.

Nithin Kurian (COO, Knoin Electronics):

Yeah. Sam cannot be, I do not think he would be very.

Suprativ Das (CTO, Knoin Electronics):

Doing all this Sam will not be happy.

Nithin Kurian (COO, Knoin Electronics):

And meanwhile the teacher might be saying something that is important and he is not able to give his complete attention what she is saying, so confuse Sam or not so happy Sam probably.

Siddharth Maturi (CEO, Knoin Electronics):

Ok, or a confused Sam.

Professor:

Ok, so you put an exclamation and a question mark, ok.

Siddharth Maturi (CEO, Knoin Electronics):

Then teacher starts teaching.

Nithin Kurian (COO, Knoin Electronics):

I think that would pretty much be a normal thing, yeah straight face.

Professor:

Ok.

Siddharth Maturi (CEO, Knoin Electronics):

Then student comprehending what needs to be noted

Nithin Kurian (COO, Knoin Electronics):

This also might be an activity that could be difficult to execute.

Siddharth Maturi (CEO, Knoin Electronics):

Since we have considered Sam, let's make it a happy face, right.

Nithin Kurian (COO, Knoin Electronics):

Right.

Siddharth Maturi (CEO, Knoin Electronics):

Now that is the emotion for the 'Before' steps of the activity. Now let us get into the 'During' part, set up his pen and open his book to write, I think it is pretty bland, no emotion; Verification of previous notes, maybe a curious Sam.

Nithin Kurian (COO, Knoin Electronics):

Yeah, it might be something that would again be a hassle for him to go to where exactly the teacher is asked him to go or he wants to go, so yeah.

Suprativ Das (CTO, Knoin Electronics):

In that case not so happy.

Siddharth Maturi (CEO, Knoin Electronics):

Selecting a page to write his next notes is.

Nithin Kurian (COO, Knoin Electronics):

Pretty straightforward, right.

Suprativ Das (CTO, Knoin Electronics):

No Emotion.

Siddharth Maturi (CEO, Knoin Electronics):

Writing content or drawing diagrams; I think this should be the activity he should be happy with.

 Nithin Kurian (COO, Knoin Electronics):

Happy with yeah, he likes to take notes.

Siddharth Maturi (CEO, Knoin Electronics):

And that is the whole activity we've considered so that is the main part.

Nithin Kurian (COO, Knoin Electronics):

And he is persona is that way, right.

Siddharth Maturi (CEO, Knoin Electronics):

So that is the emotion for 'During' and in after the activity teacher's instruction to stop taking notes.

Suprativ Das (CTO, Knoin Electronics):

He will be very happy

Nithin Kurian (COO, Knoin Electronics):

No, because he was happy when she enters the class, so.

Siddharth Maturi (CEO, Knoin Electronics):

Maybe he want to draw more diagrams and write more, we are considering an ideal student who wants to write we are in a

Suprativ Das (CTO, Knoin Electronics):

Ok, so he will be happy.

Nithin Kurian (COO, Knoin Electronics):

No he will be sad, yeah sad.

Siddharth Maturi (CEO, Knoin Electronics):

Not able to write anymore. Now, cross-checking his notes from the particular.

Nithin Kurian (COO, Knoin Electronics):

I think that will be pretty straight forward.

Siddharth Maturi (CEO, Knoin Electronics):

Personal activity, so yeah straight forward.

Then either share notes or close that particular, I think it's, sharing notes would be a happy thing

Nithin Kurian (COO, Knoin Electronics):

Happy, definitely he would be feeling happy when he is sharing his notes.

Siddharth Maturi (CEO, Knoin Electronics):

So, yeah that is happy Sam again.

Professor:

Ok. Pretty good, it's turned out to be very nice, so two things from here; Like I said, when you go to the market you can confirm whether the steps are identical to what you had imagined from your own experience and from what you have seen. The second thing to do is to confirm whether the emotional mapping that you did, sometimes called the empathy map and people do detail the empathy map, we are going to do a very simple one, this is how we do it.

It is to check whether they are really happy, I mean you have taken an ideal student, of course you can pick those students, those ideal students you can ask your teacher and get those ideal students and then see if that is really the case, observe them, not ask them, so this is my tip to you is: observe not ask because they may tell you something which is what you want to hear but in reality they may be doing the opposite.

So that is something that you will have to do on the field, those are two things that you will have to note down in your field activity. Great! This is very nice, I am assuming you have also going to detail one more persona; That was our discussion. We will assemble again for another; So we are going to clear off the desk we will show you what we have done and then probably assemble again and we will do the second persona; because for this case it matters because the journey of writing notes and the dealing with notes does not end here in this scenario, that is why we are going to do a second one.

In case it is in your scenario it is, this is all you need, only one; Like in mine that I Illustrated Mrs. Avni's journey from home to office is what I had to track, then you can stop with just one but in this case we are also going to do another. so stay tuned, we are going to show you the next one .