

Design Thinking A Primer
Professor Dr. Bala Ramadurai
Analyze Workshop – Part 01

Hello and welcome back to design thinking. This module is on analyse, so we already saw what theory behind analyse was with lots of examples, stories and so here we are with the practical demonstration of how it is applied in a real world problem. So here I am with my students, my TA - my teaching assistant to see how to apply this so that you can get a good idea on how to apply it on a real world problem. As always we have our trusted sticky notes to help us with that.

So we will show you using these and the techniques that I described earlier which were “5 whys” or” multiple whys”, multi “why” analysis and the conflict of interest analysis. So we’re going to apply it to the writing experience problem. So over to these people I am going to start off with a couple of questions. I am very curious on what they really found out in the empathize phase which is our first phase. We got into the shoes of the customer, we even did a skit for your role play for you to see what is going on. They went on field and actually interviewed a lot lot number of people compared to the ones that you probably saw on the snippet that we had.

So, here we are I am going to sort of do interview to find out what went on. Guys, so nice show last week, it was good talking to all these people and flesh and blood so they are your potential customers. Yes, so question to you, so first of all was it useful you know, eye opening for you, how was this? How was the experience in all for you?

Siddharth Maturi [CEO, Knoin Electronics]: Firstly, Sir it was definitely useful I’d say not just because it’s not what we get to learn from them in the process what we are looking to build a business model on, it’s also a new kind of insights these guys bring out or when we actually observe them what they are doing for a specific task when asked to do. We’ve actually come out with great insights in fact, so we are looking forward to bring them on to the table now.

Professor: Okay.

Nithin Kurian [COO, Knoin Electronics]: So, one thing that was definitely to add on to what Siddharth was saying. One thing that definitely came out is how technology has influenced the way students are learning and sharing versus how we used to learn when we were in school.

Especially few of our interviews with customers, the way people are sharing these days, no one is no longer sharing their hardcopy books with anyone anymore. They are all capturing it digitally on photograph, another applications and sharing.

So, a lot of difference between the way we thought learning was going on when we actually went and talked to all our customers.

Professor: So, any other Aha! moment that you said, Oh! wait a second I didn't think of these and you got that out of the interviews? So one is the sharing part I totally agree, I have seen in my own experience that the students actually report their phones and take a picture of the slide and usually ask me to get out of the way so that they can get a view and then I always heard that they share it with their own groups.

Nithin Kurian [COO, Knoin Electronics]: One major difference in the way students are learning these days again coming back to how digital students are digitally savvy students are and how they are accommodating that into their learning process because YouTube, other learning enablers like NPTEL they are all huge influencers on how students are learning these days. Any concept that he wants to learn or he is not understood, student goes online and he is learning through videos which was a big insight. We knew that was happening but the extent to which almost all of our interviewees were of the opinion, they were hugely dependent on videos as a medium for learning.

Siddharth Maturi [CEO, Knoin Electronics]: And again adding on to this point, not just videos there are lot of digitally available educational content available for learning. Now what they come up in the interviews is they might not be accessible to all the content at all times especially when they are sitting inside a classroom. So, they want to refer a specific word or a topic what is going on white board in the classroom that they cannot do in certain classes basically because of the obvious reason that they cannot use a smart phone inside a classroom and coming to the sharing part as well.

So there are instances where students are supposed to wait till the end of that class, where they again go back, play the entire power point presentation slide by slide or whatever is important to them just click those images and share it within their peer groups, or if it is a content written on the white board it's another problem there would be that students cannot wait till the end of the class the board would be wiped out N number of times in this due course of time. So again getting a phone out in between get clicking a picture is a huge problem for them and as we see

taking down each and every note for them is also not an option is what they feel according to them.

Professor: Great! So, that's one thing that I wanted to find out is how different is your customer journey map from what you had envisaged by yourself to what the on field survey actually not survey on field interviews actually helped you is something that is definitely worth while doing so that's why we go and talk to them. So now coming to real things, so what do we work on what are those starting points for us say 2 or 3 problem statements that you have that you think have to be addressed as part of our exercise.

Siddharth Maturi [CEO, Knoin Electronics]: One would basically be the sharing of the content Sir.

Professor: Okay.

Siddharth Maturi [CEO, Knoin Electronics]: From one student to other students in different mediums one would be clicking pictures and all or the conventional way which we were thinking to be happening is giving the hardcopy to their peers and getting it Xeroxed or a copy of that thing. That is a problem statement definitely we feel today that not having easily having that easily accessibility to smart phones to do something like this or actually take down the entire notes and give a hard copy to the classmate is one of the huge problem statement.

Then another problem statement would be the number of subjects they'll have to operate with as in each subject would have individual notebook and textbook for that thing.

Professor: Right.

Siddharth Maturi [CEO, Knoin Electronics]: So again in our interviews we found out that not every student has individual notebooks for individual subjects, there are students who maintain a bulky register for all the subjects, the partition that bulky register into 3 or 4 divisions and each division is an individual subject for them.

Professor: And do they actually have some kind of tagging or bookmarking kind of thing.

Siddharth Maturi [CEO, Knoin Electronics]: Yes, Yes, Yes.

Professor: Okay.

Siddharth Maturi [CEO, Knoin Electronics]: So that is how they differentiate between subjects.

Professor: Subjects, okay.

Siddharth Maturi [CEO, Knoin Electronics]: And in this situation if we talk of a user who is having a bulky register and taking down 2, 3 subject notes in one register. The problem with him or her would be getting easily retrieving the content which he specifically wants at that moment of time. He has to go through a lot of pages for the page he is actually looking for.

Professor: How many subjects do typically they I mean you've talked to postgraduates, I know you've talked to school going kids, so what is the typical number of subjects that they have?

Siddharth Maturi [CEO, Knoin Electronics]: A school going student has on an average around 10 to 13 subjects.

Professor: Wow, Okay!

Siddharth Maturi [CEO, Knoin Electronics]: And PG student has around 6 to 8, 9 subjects.

Professor: Postgraduates has 6 to 8, 9 subjects. Okay.

Nithin Kurian [COO, Knoin Electronics]: And every day probably 60% to 70% of those subjects would be covered.

Professor: Right, school kid probably has 6 subjects in a day.

Nithin Kurian [COO, Knoin Electronics]: Yes, 6 to 8 subjects in a day.

Professor: Probably the college going student probably lesser.

Nithin Kurian [COO, Knoin Electronics]: Yes.

Professor: But to somewhere in that order, okay got it, so ya, go ahead, please.

Siddharth Maturi [CEO, Knoin Electronics]: Then, coming to the other side of the story is having different notebooks and textbooks for different subjects where that's very easily seen in school going students even today.

Professor: Okay.

Siddharth Maturi [CEO, Knoin Electronics]: Right! So, the students have to carry a set weight which is not really a recommended situation for school going students now with the advent of technological advancements we are making. So we feel that is a huge problem there for a

student who is carrying like 6 to 7 text books plus 6 to 7 notebooks in one bag that's another problem we have identified. And thirdly, we would say another problem is the access to digital learning content itself.

Professor: Okay.

Nithin Kurian [COO, Knoin Electronics]: Yeah. So, in terms of access to digital content. One is the fact that students are not able to access content in class or at any point of time they want to access because of the kind of tools that enable you to access these contents. The problem with these tools, your tablets or your laptops is that you have all kinds of access to all kinds of content not just educational or learning, you have all kinds of content.

Professor: Yes! Distractions.

Nithin Kurian [COO, Knoin Electronics]: Yeah, distractions. So it is difficult for the student and for parents and teachers to you know trust the student and make his learning available on such medias. But there is a lot of content available like he mentioned for learning so that that is a problem or a gap that we want to look at.

Professor: Okay, so great, so we have three problems. I am thinking let's apply the analyse framework so the two tools that we talked about on this. So let's start with say we'll go one by one, so that people who are viewing this will get a fair bit of idea as to how to apply this in any problem that they are working on and get real feel for after all design thinking is about practical experience so that's why demonstrating to them how it's done. So let's start with the first problem. The question to ask is put a "why" in front of it and say why is this happening?

So I will leave it to you guys. You can use the means in front of us and get cracking. I'll be an observer, bug on the wall as usual and I will observe and I'll probably drop in a few hints if I think you are going somewhere.

Siddharth Maturi [CEO, Knoin Electronics]: Right, so we'll start with the number of subjects and the books - textbooks and notebooks associated with all the subjects.

Nithin Kurian [COO, Knoin Electronics]: Right.

Siddharth Maturi [CEO, Knoin Electronics]: We'll start with that as the problem. Why do students need to carry so many notebooks and textbooks?

Nithin Kurian [COO, Knoin Electronics]: Why are students using lot of notebooks and textbooks in school?

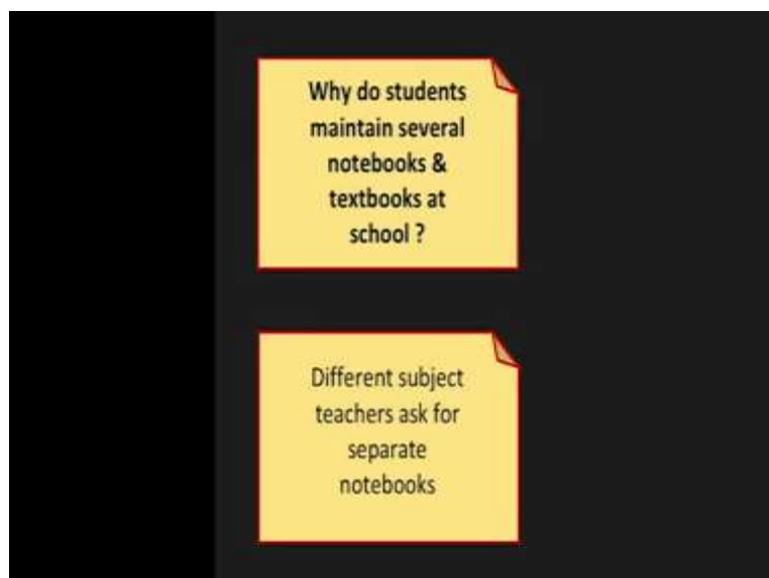
Siddharth Maturi [CEO, Knoin Electronics]: Yeah!

Nithin Kurian [COO, Knoin Electronics]: Different or lot of notebooks and textbooks.

Siddharth Maturi [CEO, Knoin Electronics]: Will this be the first “why” Sir?

Professor: Yeah!

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Siddharth Maturi [CEO, Knoin Electronics]: Why do students use several notebooks and textbooks at school?

Professor: I will just set it here, place it here, first “why”.

Siddharth Maturi [CEO, Knoin Electronics]: Now we apply another “why” to this.

Professor: Yes, so what’s the answer?

Nithin Kurian [COO, Knoin Electronics]: What’s the answer to this question?

Siddharth Maturi [CEO, Knoin Electronics]: One is that teachers there are individual teachers for individual subjects.

Nithin Kurian [COO, Knoin Electronics]: Right.

Siddharth Maturi [CEO, Knoin Electronics]: Starting from the root, and each teacher would like to have to maintain their own subject notes and not mix it with other subject notes. For the very obvious reason that they would like to verify the notes what student,

Nithin Kurian [COO, Knoin Electronics]: Let's put that as our first statement as yeah so different subjects. So let's take it as a fact that there are several subjects for students to learn. So different subjects are taught by different teachers that would be the answer to why students are carrying several notebooks for learning in school.

Professor: Yeah! Yeah! Just put it down here.

Siddharth Maturi [CEO, Knoin Electronics]: Different subjects are taught by different teachers.

Professor: Just put it under this, we see it as a second "why". Why are there different subjects taught by different teachers? So that's the next level.

Siddharth Maturi [CEO, Knoin Electronics]: Well then to answer that why teachers would like to again like I said teachers would like to have their specific subject notes in their special book and not mix with other subjects so that it's easy for them to organize in 60-70 student's notebooks for one subject rather than looking 60-70 student's notebook which has 2 or 3 other subjects as well.

Shyam Paul M: That will be difficult for the teacher.

Professor: Yes, that will definitely be difficult.

Siddharth Maturi [CEO, Knoin Electronics]: So it would be for verification of notes so that teacher can verify student notes.

Professor: I think that there you are answering the question why are different subject notebooks being asked by different teachers.

Siddharth Maturi [CEO, Knoin Electronics]: Yes.

Professor: So it's not about different subjects being taught by different teacher but they just want it that way, it should be separate. Reason for that is what you are saying is that I want to be able to verify it individually, so that's the,

Nithin Kurian [COO, Knoin Electronics]: Okay, so we probably have to.

Professor: But now you've to keep examining whether all this chain makes a logical sense. So is this the answer yes I think so, why do students carry several notebooks and textbooks to school? Because different teachers want it to be maintained as different notebooks. If I have a single register it is going to be tough. Maths teacher wants this, but the science, now you can't get it because it's in maths.

Nithin Kurian [COO, Knoin Electronics]: So rather than different subjects being taught by different teachers it would be that different teachers would want their notes..

Professor: Absolutely, you can scrap this and write it if you want.

Siddharth Maturi [CEO, Knoin Electronics]: Different teachers

Nithin Kurian [COO, Knoin Electronics]: Teachers would want their subjects written in different notebooks which is essentially why students are carrying different notebooks for different subjects.

So why do teachers mandate that their subject should be written in a separate notebook rather than in one particular notebook. So then it would be for verification. Is there anything else why student why teacher would mandate?

Professor: Correction.

Nithin Kurian [COO, Knoin Electronics]: Yeah! Verification and correction.

Professor: But do teachers actually do that? Do they sit and verify class notes? I don't do that as a but as a, I am a college professor.

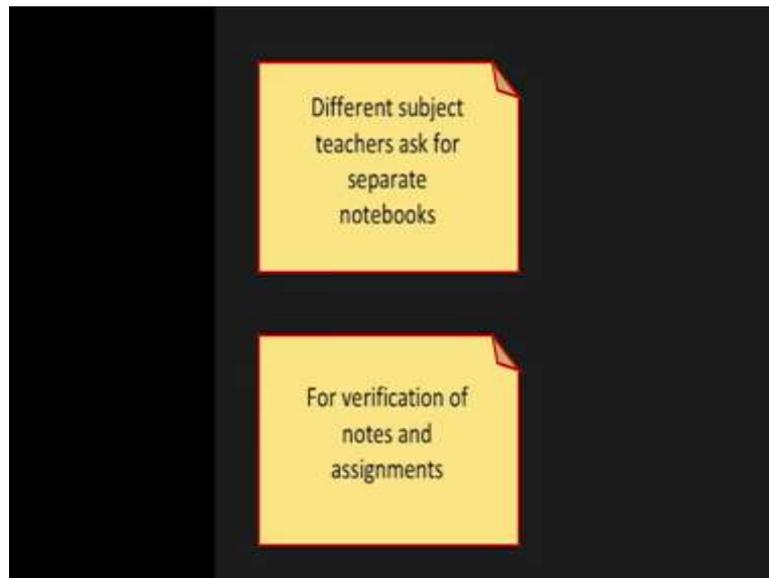
Siddharth Maturi [CEO, Knoin Electronics]: Yes, as a college.

Professor: School teacher probably they do, school teachers they do. So this is probably true for a school case.

Shyam: As there will be like homeworks as well.

Professor: Right, Right. So they'll have to check that as well and that has to be in different notebook as well. Perfect! Makes sense, this is for school teachers.

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Siddharth Maturi [CEO, Knoin Electronics]: This is for verification of.

Nithin Kurian [COO, Knoin Electronics]: notes and assignments. Or here.

Professor: Yes, this goes like this you can keep it one level after the other so I am just doing it this way.

Nithin Kurian [COO, Knoin Electronics]: Okay. So, why do teachers want to verify the notes or assignments that they have asked the students to do? To ensure that the students' learning is happening.

Siddharth Maturi [CEO, Knoin Electronics]: How effectively to ensure how effectively?

Professor: The assumption is that the notes that they have written has gone through their mind and it's coming is on there. So whatever they have learnt or heard or what is being transferred to the notebook. That's the assumption.

Siddharth Maturi [CEO, Knoin Electronics]: Yes, and to understand the learning process.

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Nithin Kurian [COO, Knoin Electronics]: To ensure that the learning has happened. Effective learning has happened for the student which is why they want to see whether the notes have been taken and the assignments have been complete.

Professor: Okay, why would a teacher be interested in effective learning?

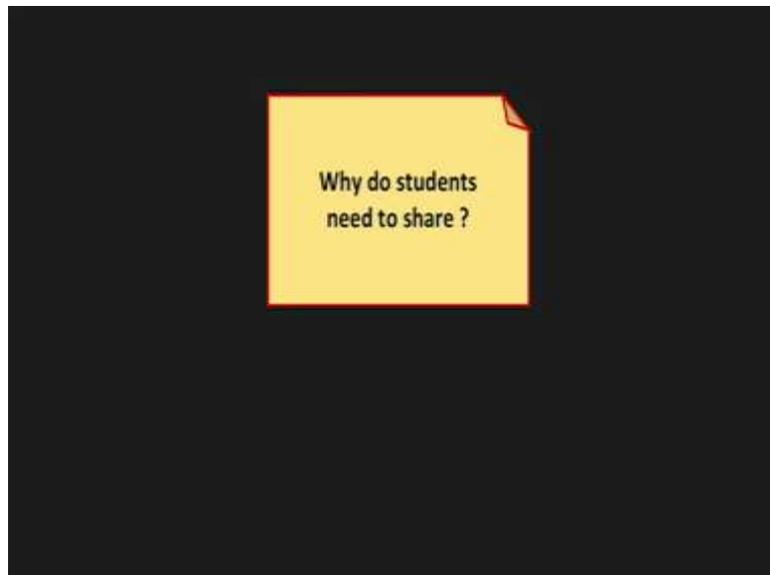
Siddharth Maturi [CEO, Knoin Electronics]: That's the job.

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Professor: That's the job. That's why they are paid for, right. Okay, so that would be the, so when you reach a natural limit or you know reach something very fundamental you can stop.

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Nithin Kurian [COO, Knoin Electronics]: Would it be possible to have multiple answers to the same question?

Professor: Oh! Yes. I have seen or seen students do it. I have done it myself is to have branched “why” as well. So you’ll have a line coming here as well I have seen that as well.

Nithin Kurian [COO, Knoin Electronics]: So, I think in this case probably, yeah. So one reason why students need to share notes is probably because I am a slow writer or my understanding or it takes time for me to comprehend and put it down to words, so that might be one reason.

Siddharth Maturi [CEO, Knoin Electronics]: Pace of understanding and jotting down is slow.

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Nithin Kurian [COO, Knoin Electronics]: Yeah, that could be one reason, slow writing, slow learning and understanding.

Siddharth Maturi [CEO, Knoin Electronics]: Yeah.

Nithin Kurian [COO, Knoin Electronics]: Another reason could be that I was absent on a particular day.

Siddharth Maturi [CEO, Knoin Electronics]: So that we have a branch

Professor: Oh, yeah that's a branch okay, I'm sorry.

Nithin Kurian [COO, Knoin Electronics]: Another reason could be that I was absent on a certain day.

Professor: Right.

Siddharth Maturi [CEO, Knoin Electronics]: Yeah, lack of attendance.

Nithin Kurian [COO, Knoin Electronics]: Lack of attendance. Another reason could be that I want a better learning experience from someone who has written notes better than me.

Professor: Right, there always these good notes takers.

Nithin Kurian [COO, Knoin Electronics]: So even if I have written my notes I would probably want someone who has written notes better, I am sure he has written notes.

Shyam: Maybe their handwriting will be better.

Nithin Kurian [COO, Knoin Electronics]: Yeah, they do all like this.

Siddharth Maturi [CEO, Knoin Electronics]: So looking for better note taking students.

Professor: Right, better notes.

Nithin Kurian [COO, Knoin Electronics]: Better notes, better notes, better notes. Looking for better notes. Yeah, seeking for better notes.

Siddharth Maturi [CEO, Knoin Electronics]: Yes.

Nithin Kurian [COO, Knoin Electronics]: So now we have to apply “why” on each of this.

Professor: Yes, now you got your job got triply cumbersome yes.

Siddharth Maturi [CEO, Knoin Electronics]: So pace of understanding writing is slow, why would be the pace of understanding and writing be slow for a student?

Nithin Kurian [COO, Knoin Electronics]: That would be.

Siddharth Maturi [CEO, Knoin Electronics]: The obvious reason that every one’s understanding is not build the same.

Professor: We could say that’s a natural limit.

Nithin Kurian [COO, Knoin Electronics]: Natural limit, yeah. So I think yeah.

Siddharth Maturi [CEO, Knoin Electronics]: Then this.

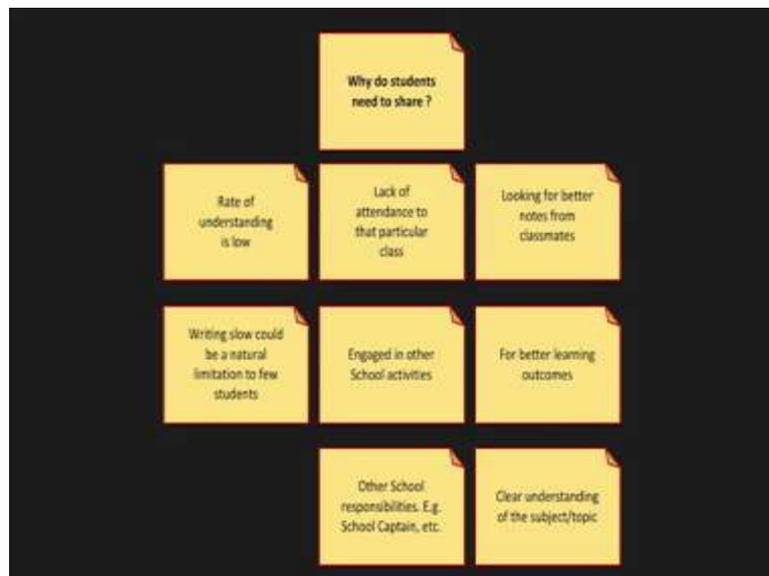
Nithin Kurian [COO, Knoin Electronics]: So I think we can put that down or should we be putting that down.

Professor: Up to you I mean if it makes the problem richer in understanding you can put it down; I don’t mind it.

Siddharth Maturi [CEO, Knoin Electronics]: I think we can put it down Sir.

Professor: Okay, put it down.

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Nithin Kurian [COO, Knoin Electronics]: Natural limitation for an individual student.

Professor: Again some of these are some assumptions that we have, so let it be that way. It's your own understanding of the situation. It's not reality itself represented, and it's to your understanding.

Nithin Kurian [COO, Knoin Electronics]: Why would there be lack of attendance to.

Professor: That particular class.

Siddharth Maturi [CEO, Knoin Electronics]: So, that's subjective so.

Nithin Kurian [COO, Knoin Electronics]: It could be because he was sick.

Professor: Good movies playing.

Nithin Kurian [COO, Knoin Electronics]: It could be because he was sick.

Professor: Yes, sickness is a common reason.

Nithin Kurian [COO, Knoin Electronics]: Yeah, illness, yeah illness could be a common reason.

Siddharth Maturi [CEO, Knoin Electronics]: Engaged in some other activity.

Shyam: Co-curricular activities in school.

Professor: Yeah, in school they pull you out for some other activities.

Shyam: Annual day and all.

Professor: Yeah, like gathering, annual day, school day.

Siddharth Maturi [CEO, Knoin Electronics]: Engaged in other school activity or absent for personal reason.

Nithin Kurian [COO, Knoin Electronics]: Yeah, I think let us keep it to this one.

Nithin Kurian [COO, Knoin Electronics]: And looking for better notes from classmates would be because they want to score better marks for their exams or because they want.

Siddharth Maturi [CEO, Knoin Electronics]: Probably missed out a couple of lines in between when teacher was teaching or while they were taking down or.

Shyam: All the important points these guys.

Siddharth Maturi [CEO, Knoin Electronics]: And see and try to understand how a studious student is preparing his notes.

Nithin Kurian [COO, Knoin Electronics]: Looking for better notes from classmates, why would because I think that point would come here. If he's missed a few lines then it will again come to the his writing becoming slow.

Siddharth Maturi [CEO, Knoin Electronics]: So I think this will be.

Nithin Kurian [COO, Knoin Electronics]: When I am looking for better notes, I am expecting that my learning outcome from those notes would be better than my learning from my own notes. Yes. So, we are looking at better learning outcome, so can we put that down as better learning outcome?

Shyam: Yeah, for better understanding.

Nithin Kurian [COO, Knoin Electronics]: So why are we looking for better notes from classmates because our learning outcomes are going to be better.

Siddharth Maturi [CEO, Knoin Electronics]: Fine, okay.

Nithin Kurian [COO, Knoin Electronics]: So I think this one is done. Why would student be engaged in other school activities?

Siddharth Maturi [CEO, Knoin Electronics]: Class CR's or house captains they have other duties as well to conduct in the school, so that could be one of the reason.

Professor: So if they are monitors of the class or class leaders or representative's classes yes they can have other jobs to do, other responsibilities, okay.

Siddharth Maturi [CEO, Knoin Electronics]: For better learning outcome why would someone.

Nithin Kurian [COO, Knoin Electronics]: Why would someone want better learning outcome? They can score better marks that could be one reason.

Siddharth Maturi [CEO, Knoin Electronics]: But understanding it better.

Nithin Kurian [COO, Knoin Electronics]: Better learning experience, but it becomes same.

Shyam: To do good in academics.

Nithin Kurian [COO, Knoin Electronics]: Yeah that is what so to do good in academics would essentially translate.

Siddharth Maturi [CEO, Knoin Electronics]: Academics is not the entire concept of learning.

Nithin Kurian [COO, Knoin Electronics]: Yeah, so that's what. Either you can have a better learning or you can translate that better learning into your academic performance which is basically scoring better in your exams. So you can put down one reason as,

Siddharth Maturi [CEO, Knoin Electronics]: Having a clear idea on the topic on the subject. Clearly understanding on the subject.

Nithin Kurian [COO, Knoin Electronics]: On the subject, fine.

Siddharth Maturi [CEO, Knoin Electronics]: Academics and all come automatically if the student has the clear understanding of what he is.

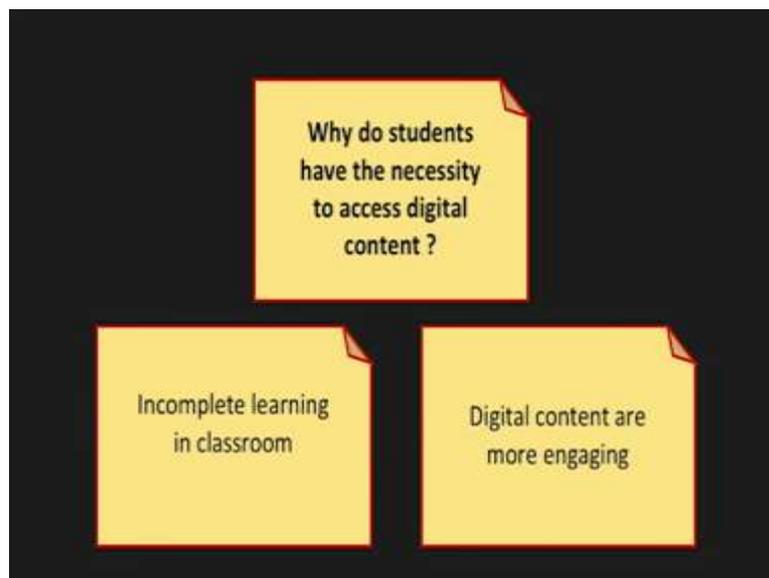
Nithin Kurian [COO, Knoin Electronics]: Why does he want a clear understanding because that's why he is there in the school and other responsibilities that is again coming back to school being holistic and that being a natural part of his activity in school I think that's it.

Professor: So what's the third I mean third problem statement that you are working on?

Nithin Kurian [COO, Knoin Electronics]: Access to digital content.

Professor: Access to digital content, okay.

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Siddharth Maturi [CEO, Knoin Electronics]: Okay, so why do students have the necessity to access digital content?

Nithin Kurian [COO, Knoin Electronics]: So one reason could be that the learning that happened inside the classroom was incomplete which is why they would be looking at something like digital content.

Siddharth Maturi [CEO, Knoin Electronics]: Incomplete learning.

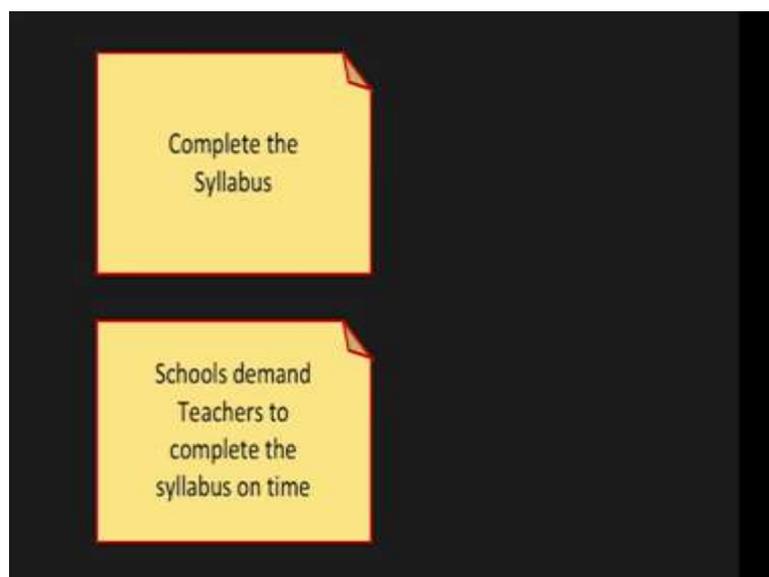
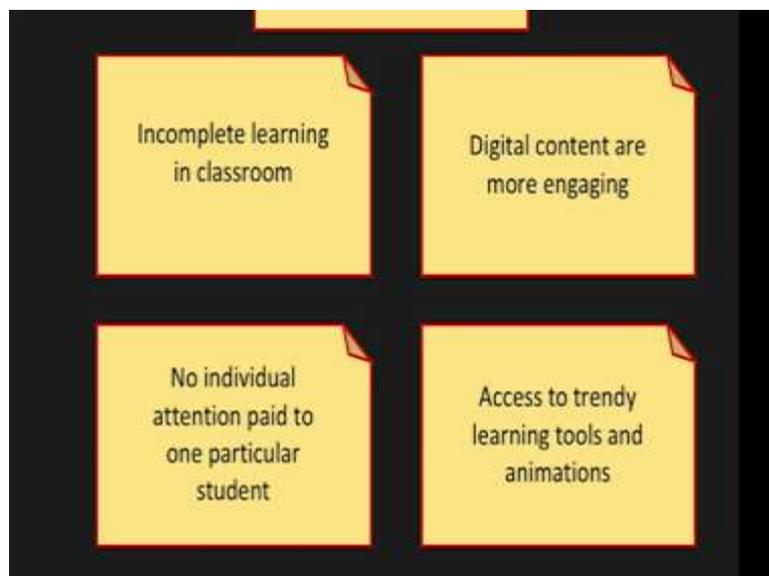
Nithin Kurian [COO, Knoin Electronics]: Incomplete learning in classroom, another reason could be that such content are more engaging than, I think we can put those two reasons down.

Siddharth Maturi [CEO, Knoin Electronics]: Digital content are more engaging and also that they have lot of options in digital content not just class textbooks, so that is also.

Nithin Kurian [COO, Knoin Electronics]: Already learnt, yeah. So let's put all that down into the word of engaging meaning your options something that is coming as new so let's put it all down into the fact that digital learning is more engaging.

Siddharth Maturi [CEO, Knoin Electronics]: So we can just bring around. Yeah.

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Nithin Kurian [COO, Knoin Electronics]: So why is learning incomplete in classroom? Because probably the teacher would only explain it once for the entire class and no individual attention is given for one particular student.

Siddharth Maturi [CEO, Knoin Electronics]: Right, no individual attention.

Nithin Kurian [COO, Knoin Electronics]: And why would digital content be more engaging than monologue from a teacher in class.

Siddharth Maturi [CEO, Knoin Electronics]: Digital content is again an online kind of a service, so it has a number of options where students can go and pick up from.

Nithin Kurian [COO, Knoin Electronics]: Also the probably the tools that digital content allows you to use would be much more greater than what teacher can do in a classroom, he can use animations, he can use all kinds of digital tools, so that might could also be one reason

Siddharth Maturi [CEO, Knoin Electronics]: So access to fancy tools, trendy tools, trendy learning tools.

Nithin Kurian [COO, Knoin Electronics]: Yes.

Siddharth Maturi [CEO, Knoin Electronics]: Trendy learning tools and animations.

Nithin Kurian [COO, Knoin Electronics]: So why is individual attention not given to a particular student? Because if a teacher would start giving individual attention to each and every student he or she would not be able to complete, so it would be.

Siddharth Maturi [CEO, Knoin Electronics]: To complete the syllabus.

Nithin Kurian [COO, Knoin Electronics]: To complete the sub portions, yeah syllabus. I think why is there access to more learning because that is the way it is.

Professor: Okay, again natural limit. That's how world seems to be working this way.

Nithin Kurian [COO, Knoin Electronics]: To complete why does the teacher want to complete the syllabus? Because she is being monitored and the curriculum demands or the school demands that, the teacher completes it. In fact in our customer and stake holder interviews, we have also come to identify that teachers have a weekly review wherein they are expected to see that certain amount of portions are completed in that particular week.

Professor: Okay, it's a difficult situation that a teacher is when they do not cover what they are supposed to in a week, resolution of a week, okay I get it.

Siddharth Maturi [CEO, Knoin Electronics]: Why do schools demand teachers to complete the syllabus? Again it's.

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Professor: The function of the school itself, this is why they exist in the first place to complete courses, okay I think you have done a comprehensive analysis of the three questions that you started off with. So one thing I would like to tell you is that this branching is common it's done and sometimes you reach levels deeper in one line of thinking and not in another problem.

One could be potentially you do not have enough information, do not have enough experience, other is you may have more information and you know understands it may get deeper, so that is probably even deeper in some and not somewhere else. So you can also augment this with field studies, you can go to customers observe them and actually see if any of this is valid, this is based on your own experiences or some of the interviews that you had in the past can also go particularly check for these as well that is also accepted.

Okay, so good so now the logical next step is to identify a particular level at which you have to operate, okay so you can pick saying one or two things is that you see that according to your own subjective judgment that yes this is a very important problem a level at which we have to work and so you can pick one level like that or you have seen students come often to you and or you have observed students in a state where oh yeah this is a problem somebody has voiced it to you or you have heard it in the past.

So these two you can use to fix at what level you are going to work, okay so that's the once you fix the level then we will go onto the conflict of interest analysis, we will pick one in any of these and just pick one and we will work with that on the conflict of interest to show how it's done to the audience. So your subjective judgment and where you saw that students were in your own interviews you said wait a minute, this is really interesting ones for them.

Nithin Kurian [COO, Knoin Electronics]: Can we use sharing as our?

Professor: Your baby, you decide.

Nithin Kurian [COO, Knoin Electronics]: Because students are doing a lot of sharing and they are using existing technology to somehow meet their necessity is not done in a proper way. So we would like to explore.

Professor: Okay, so now can you fix the level or the particular "why" which is your focus.

Nithin Kurian [COO, Knoin Electronics]: So probably this one better learning outcome.

Professor: Better learning outcomes.

Nithin Kurian [COO, Knoin Electronics]: That is the level we would want to reach.

Professor: Okay, so we will fix it at that one, so we are going to do work here yeah we can do that.