Usability Engineering
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Module - 04
Lecture - 13
Requirement Analysis - I

Welcome to lecture number 13 of module 4. In this session we are going to discuss about contextual enquiry. It is an ethnographic technique a direct observational technique and we would see and learn how to conduct a contextual enquiry and how do we report the data or analyze the data and use it for conducting or defining the requirements from our users. So, let us begin.

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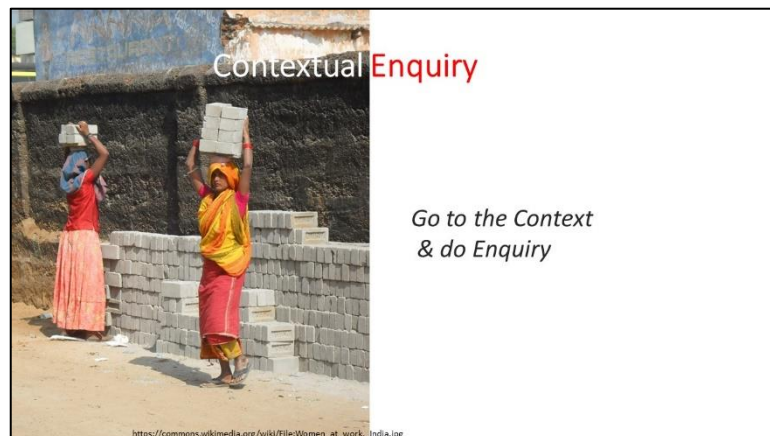
So, contextual enquiry means, go to the context and do enquiry, it is a direct observational technique. The focus here is to visualize to view the situation through the designers or the team members eyes. You must go to the place, go to the situation where the task is getting unfolded. Essentially, we are focused to understand the environment, to understand the various situations that influence our users while they are conducting their tasks.

And therefore, it says go to the context, go to the place where your users are doing their activities and observe them while they are doing the activities. Idea is to observe those activities as they are unfolding it is also associated with conducting or asking questions. After your observation or even sometimes during your observations you can do an enquiry, you can ask questions related to those activities and get responses from your users.

So, before we start discussing in detail about the techniques and the principles of contextual and enquiry, let us understand why gathering data is very hard. See your users, they do not get very detailed they only provide abstract information. They tend to generalize things, often they cannot even explain them out of context this is a property of your users, these are the property of every human beings.

Whenever you ask them to talk about a specific context, to talk about a specific situation, they will only provide you abstract data or the data which they can remember. If you can recollect the discussions of Professor Kahneman's work that we had earlier, we talked about the experiencing self and the remembering self. So, they will only provide you with the information that they remember and that too that information would be given to you in its abstract form, that information would not be very detailed in nature.

And they tend to generalize things that is the characteristics of your users, these are the characteristics of the people that you are dealing with. And if you ask them something which is out of the context which is not part of their habit-forming behaviors which they have not rehearsed or they have not been doing over a period of time, they will be able they will get confused and hardly would able to provide you with the data.

The second aspect or important characteristic of your users are users may not be very very accurate. They provide qualitative statements, they cannot accurately tell you the quantity they would somehow give you an idea of the quantity in relative terms. So, relative statements are something which they are more which they are more exposed to; that means,

they provide you with relative statements and these relative statements has a frame of reference.
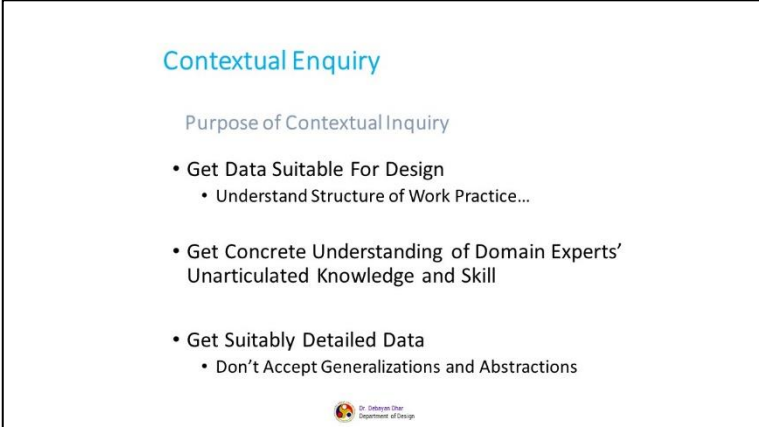
So, whenever they make a relative statement, they will refer it from their past experience. Some datum is there from where they would relate and then they will explain that to you and often they will end up in making inaccurate estimates of quantities. Third users often have a frame of reference that what we have been talking about. Look at the examples that I have just provided in this slide.

Engineers will suggest technical fixes, managers will suggest regulatory fixes, while workers will suggest procedural changes each one of your users based on their habits based on their exposures past experience they will have their own frame of reference. So, therefore, be very cautious when your users are making relative statements. You must be aware of the frame of reference that your user is using that your respondents are using, so that you can accurately understand the estimate from what datum, from what benchmark they are referring to.

And as an investigator you too have your own frame of reference. Many a time I have seen whenever my students start doing projects they start with an idea, they already have an idea. Instead of focusing on the issues, the necessities of the users the persons for whom they are designing they already have an idea. And then they go to their users to confirm whether the whatever ideas they have does that idea work with them. So, these leads to biased decision making because you are already biased with your design ideas.

So, be very careful about these issues while you start focusing on or getting into the contextual enquiry modes. So, the purpose of contextual enquiry is to get data suitable for design. We want to understand the work practice.

Understand structure of work practice and this is very important, we want to understand the structure of work practice. So, the focus is on the task of the activities that are being performed by home, by our user and this word practice means we want to understand about their habitual information right. We are more concerned about the habitual information because these are the practices our users have been repeating day in and day out.

They might be facing issues while they are doing this work over and over again, we want to get into those situations we want to understand those issues that are plaguing our users that are plaguing our respondents. And therefore, we want to have a detailed idea about the work practice. So, always keep that in mind any goal I mean any user study the goal of it is to understand the work practice specifically when we are developing, our intention is to develop a software that is usable.

Second purpose we need to get concrete understanding of domain experts, this is also very important. Who are the domain experts here? We want to understand and get information from the domain experts; but who are the domain experts? Are we referring to somebody who is learned and who is known in a particular subject or are we talking about somebody who has who specializes in a particular subject?
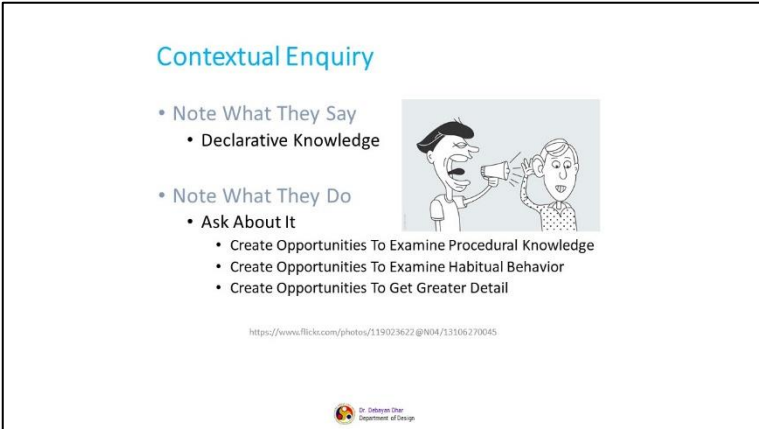
Yes, but in a different way. We are talking about the users. The users that we are referring to are our domain experts. And why they are domain experts? Because they exactly know their work, they have been doing this work over and over again they know in and out of the work of the work practice. And therefore, they are our domain experts right we want

to understand the unarticulated knowledge and skill that they have our domain experts are the users right.

Our users are the domain experts and they are not trained in communicating the knowledge they have information and this information are unarticulated in nature, we must extract that. So, they possess unarticulated knowledge and skill and our intention to extract that and understand what their requirements are. Our third purpose is to get suitably detailed data, we do not want to accept generalizations and abstractions, remember users because they have this the unarticulated knowledge and skill.

Therefore, they always provide you what generalized data and abstract data, we do not want that. What we want is detailed data from our users and therefore, we must use techniques like contextual enquiry to get those kinds of data.

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Now, it is important then when we go for a direct observational technique like contextual enquiry, we must focus on what they say. That means we want to focus on declarative knowledge and these are the information that are stored in their memory as facts, these are factual information descriptions of certain things. So, we want to focus on what they say because that tells us about the declarative knowledge they have.

And we want to note what they do. So, the focus is on what they say and what they do together. So, we are here to interpret these two things, what they say and what they do. We need to ask about how do they do certain activities. And why we are doing that? We are doing that to examine their procedural knowledge. When does something becomes a procedure for them? How does habit get forms?

If a particular procedure is repeated over and over again over the years it generally becomes an habit for a person. And that is what exactly we are referring to, we want to know their habitual behavior we want to understand all these things in not abstract in not abstractions, but in detail right. So, the highlight here is in order to get detailed information we must examine or extract their procedural knowledge which helps us to understand their habitual behavior.

And we know since they have the quality of providing abstract data, data that is not structured that is not detailed. And therefore, we want to observe them because this tells us about their procedural knowledge. And we also want to focus or what they say which is about the declarative, the facts that get stored in their memory here we are referring to the remembering self. While you are observing a particular activity, we can also get some data about the experiencing self as well.

So, this contextual enquiry is a mixture of what? It is a mixture of getting data from the experiencing self and remembering self, right. See the richness, here we are focusing on both these things if you remember my lectures on Professor Kahneman's work on the self theory you will realize the importance of getting data related to the experiencing self.

And how do we get this? Because, we are focusing on what they do. So, while they are doing the work we can get them answered few questions and from that we can actually get data about the experiencing self. While we do examine other kind of questions that are primarily attitudinal in nature in nature and those are something which will provide us with data for from the remembering self.

This is one of the primary reasons why contextual enquiry is so rich. Whenever the situation arises if you have a chance to conduct a contextual enquiry the design team and designers always prefer contextual enquiry. Even though it requires resources and time to conduct it, but it has been always the first choice for designers in order to understand or get accurate data about the requirements of your users.

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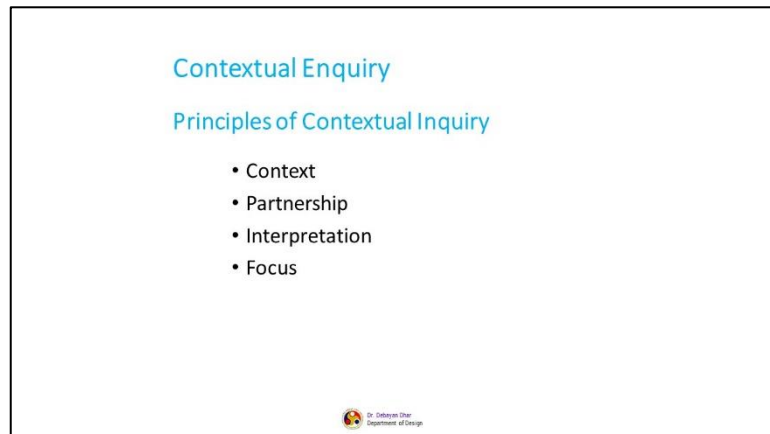
Now, let us come down to the principles of contextual enquiry. Contextual enquiry has 4 principles and these are the principles based on which the entire activity is performed. The first one is context, second is partnership, third interpretation, and the fourth one is focus.

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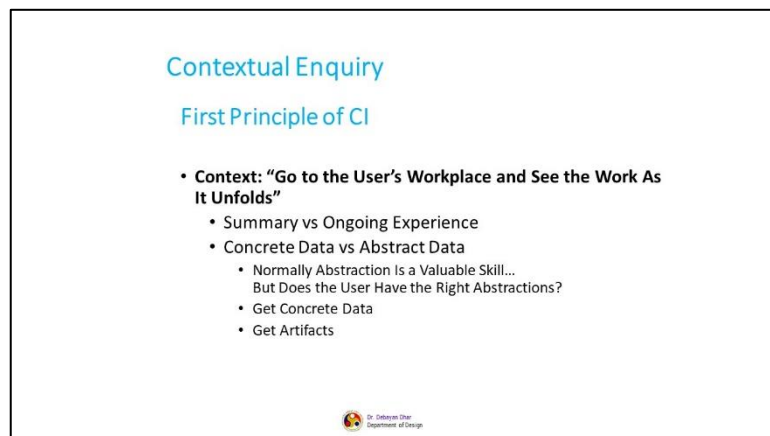
Let us start discussing all these principles one by one. First principle of contextual enquiry; the word itself tells you what does it mean context go to the user's workplace. See we are not asking that he should be brought to the lab, we are not asking for this we want you to go to the user's workplace. Do not bring him to your lab or to your space and then do a contextual enquiry. No, go to his own settings his settings his natural settings in order to see how he executes the task how the things are being done.

Idea is to see how the task gets unfold how the entire activity unfolds and the essence of doing all these things is because we do not want this, we want this. Because if we

summarize, if we have a summary experience it is all about getting abstract data no. Therefore, the reason is the issue is we want to capture the ongoing experience. And the ongoing experience is always detailed and therefore, we want to get this data. It is about concrete versus abstract data, we do not want this we want this concrete data.

See many a time in research or in research field it is a welcome phenomenon or a welcome habit if you can come up with abstract statements or abstract or you can abstract something from a detailed data that is a welcome thing. And it is a valuable skill, but in this case, it is not the same thing we are not getting an abstraction from detailed data. Here the focus is to get detailed data, we will be abstracting it later, but now the focus is to get as much detailed the data as possible.

Now, why we are focusing on that? Because our question is doing the user have the right abstractions and why we are raising this question? Because of his frame of reference right. His frame of reference would not be known to us, his past experience would not be known to us. And therefore, we are not sure whether he would be able to rightly abstract, create providers with the abstract knowledge that we will understand and that is the only reason we go for concrete data that is detailed right.

We want to get concrete data, we want to get to the artifact; that means, each entity which he uses which influences his decisions. We want to focus on influences that influences his decisions.

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The second principle of contextual enquiry is partnership: partnership says means what? Make you and the user collaborators in understanding her work, understand this. Doing a

user study or getting into the mode where you can extract information from your users is not an easy affair, it is a highly complex activity. And why it is complex? It is complex because first of all your personal interaction might influence, might motivate or discourage your user to provide you with the data.

If somebody is your friend, if somebody is yours is there a personal relationship associated with someone with whom you are conducting data collection that personal relationship will influence the kind of data your user will provide to you. Consider this situation I have a friend I ask him to appear for a study or I want to observe him, I go to his place. Now he might have we might have a situation where he always acted smart in front of me.

So, even here also though I am doing user study in instead of getting accurate data accurate details his personal relationship that he always acts smart with me, he will try to behave smart with me in that situation as well. Take another example; for example, you have I have gone to my friends place to conduct a contextual enquiry and I want to observe an activity and ask him that I will observe him he starts activity, but then he realizes that he does not have the procedural knowledge, these are not the regular activities he performs it is not stored as a habit in inside him.

And therefore, now he thinks that oh he has come to me to conduct this study and now he will feel bad if I do not give him adequate information. Now, what he does? He starts providing me with his opinion. So, I am now getting opinionated data. Do you understand what is happening? Now, is that do are we happy with opinion data? No, we do not want opinion data we want procedural data, we want to get detailed data about their habits which is already formed right.
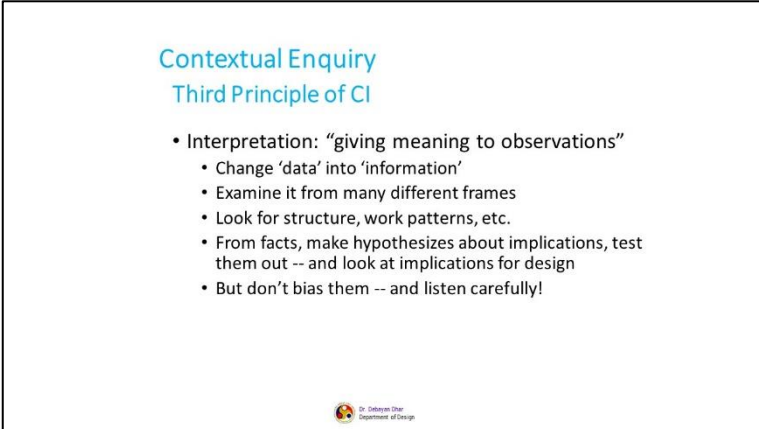
And therefore, partnership is very important, it is important that we make ours; that means, the design team of the designers and our respondents or the user's collaborators in understanding the work or the work practice. You need to use your relationship model to tilt the roles to one that gets them to give you information that is an art. You have to use your relationship with the respondent in such a way that he should give you the accurate data not biased data.

And if you if you start asking questions, if you want to conduct an interview process it during the contextual enquiry you need to understand that you should not control the data that is being provided to you. You should not say no do not tell me all these things, tell me

that no you should not do that because that discourages your user, that makes them jittery they get confused. So, one of the relationship models that work here is what you have to become a good apprentice you know.

In order to get the insights to the work practices more like a observant partner. You need to be patiently observing your user as your user is showing you how the work that he does or while you are observing him doing that work. Keep it in mind do not ask him to do something artificially just because you have gone there to observe him, no. Get there when he is motivated or because of some external factors he need to do that work, the motivation should come out of his habitual practice not because you are asking him to do.

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The third principle of contextual enquiry is interpretation: giving meaning to observations, the focus here is whatever data you are capturing you have to convert the data into information. So; that means what? Data when put into a context or a it is saying scenarios can be classified as information. You need to examine this from multiple perspective, from multiple different frames because only then you can interpret it correctly because interpretation needs to be done right.

So, in order to interpret this data accurately you must examine the data from different frames means different perspectives right. And while you are interpreting this data what is what should be there in the back of your mind? You should look for structure, any work patterns these are the most important things that you should look for in the data.

From facts you need to make hypothesis about implications; what are hypothesis? Hypothesis are all about assumptions right. From these data you need to assume

something, oh I think this is happening, this kind of things are happening I think this in this activity there this is the phase where the user is probably confused, he is not getting the required information to process to the next step.

And therefore, I think we need to look into this situation in great detail and you we can come up with the design intervention here, you know. These kinds of assumptions are required which we call as hypothesis and we need to test it out in order to ensure whether we are accurately hypothesizing or not. Whether our assumption is true or not, how do we ensure? We need to go and test it out and finally, we are ensuring all these things only to make sure that we do not bias them we need to listen carefully to what they say right and observe what they do.
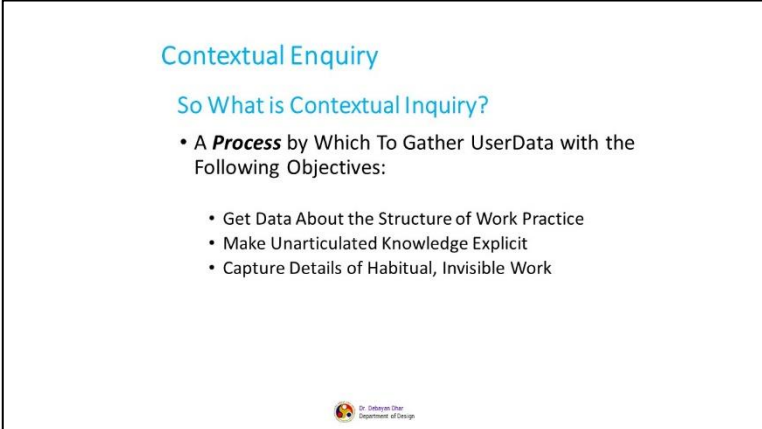
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Now, coming down to the fourth principle of contextual enquiry is focus. The fourth principle is focus: it means keep the conversation on useful topics without resting control entirely away from your customer expert; that means what? You do not dominate what kind of data your user or customer or the respondent should give you, but you should anchor I will use this word anchor. You should anchor what?

The user to focus on useful topics that concerns you, the designer right that much anchoring is required otherwise they will go astray, but then ensure that it has to be very politely and subtly. So, that they do not feel that you are overpowering them and they are influencing what kind of data they should give you ok. So, there is a thin line between being felt as a controller and being as an anchor to the discussion right.

It is a fine line that you have to trade in between and for that you need to remain objective focused, you must know what your objectives are before you start the enquiry. Your goals for the observation should be clear for what you have gone there to observe. This should be clear like it is all about steering a conversation gently that is what we have been discussing about. And remember the objective is getting more detail, covering all the relevant aspects of the domain and there will be situations where you will get surprised ok.

In those situations you must admit your ignorance, just because you do not know about the situation, does because that you are not aware of this situation you should not abandon the data. No, you must accept that yes this is something that I knew, I found out for the new.

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So, finally, let us start how do we get into contextual enquiry. So, contextual enquiry is a process by which we gather user data and the objectives are to understand the structure of the work practice procedural knowledge I am just trying to repeat the same thing ok. So, that it is clear to all of you we want to ensure that the unarticulated knowledge becomes explicit; that means, detailed data not abstract data. And since we are focusing on procedural knowledge we must get to understand what are the habitual behaviors, invisible work, the influencers.

So, contextual enquiry is a process to gather user data with these following objectives to get procedural data to get detailed data and to get habitual data.

So, each session lasts about 2 to 3 hours and this session will be you being observing the tasks as well as conducting interview; that means, you are asking questions about the task practice and ideally 10 to 20 interviews or sessions are done. So, you see it is not only interview. So, you must understand this each interview starts for 2 and 3 to 4 hours, but it is also associated with observation; that means, you are directly observing the task that is getting unfolded.

And for each contextual enquiry say for a particular field of study you can conduct at least 20, 10 to 20 interviews which has observations embedded into them. That means not only interviews you many a time I have seen my students doing contextually in this way, they will go to the place they will catch hold of some people and they will ask questions. Well, now that is an interview completely interview it is devoid of any particular observation.

They will tell me that ok I have gone to the place, but I have not seen any task getting unfolded I could not see the actual practice because the time was different then it is not a contextual enquiry. A contextual enquiry is not only about asking questions and conducting an interview, no; it is accompanied by observation. So, you go you schedule your session during a time when that task is being performed when your users are performing an activity.

For example, you have you have gone to a kitchen you want to see how people cook foods, how do they procure foods you must go when they are doing those activities. You should not ask them can you do this activity for me and I want to observe then it is biased. No, you need to observe those activities while they are being performed and then you can have
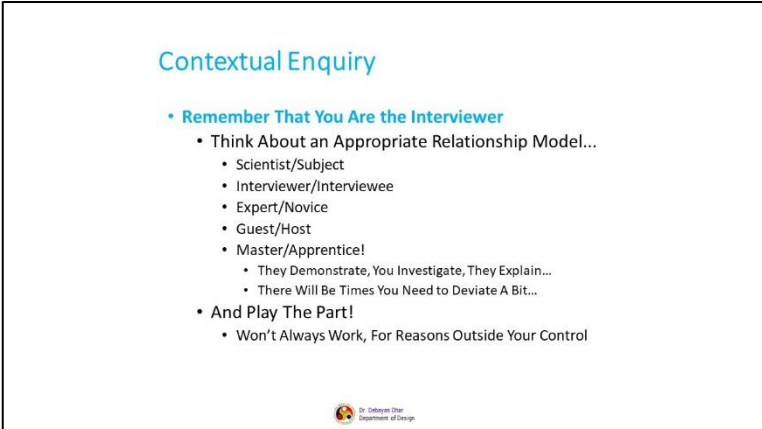
these interview sessions right. So, that is why I have said interview and observation this should go together, only interview will not work then it is not a contextual enquiry.

So, this focuses on attitudinal data the interviews while the practices focus on the behavioral or the procedural knowledge right. Go to the context to the user's workplace, get into a partnership model apprentice, talk with them, engage with them, make them comfortable, they should not get intimidated because of your presence, they should not get biased because of the relationship that you have with them.

You should be able to tilt the roles in such a way that they get give you detailed information and then comes interpretation, develop a sure understanding. If you have recorded data and if you are trying to interpret if you feel that you are unable to do it because of some issues with your information, you have insufficient data you can have them in this session you can have your users talk with them as you start interpreting the data that is also a good way of doing this.

Therefore, this I am saying here develop a shared understanding you can involve your users your respondents to be partner with you while you are interpreting the data of the contextual enquiry sessions. And remember again the focus is on direct enquiry to meet design needs that is what the focus is all about.
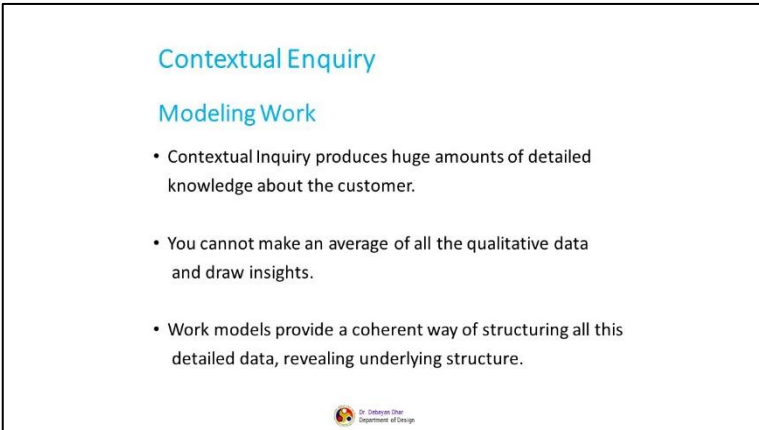
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Now, remember that the relationship that you will have with your respondent with the user while you are conducting in text contextual enquiry is of paramount concern and that is because this can influence the nature of data that you will be collecting. So, therefore, think about an appropriate relationship model and what are those models?

Whether you want to go for a scientist subject model interviewer interviewee model, expert novice model, guest host model or master apprentice model; which one which one among these models can be used as a relationship model between you and the user that you are observing? Among all these the most appropriate is this one master apprentice; why? They are your master, the experts they are the domain experts remember they are the domain experts they will demonstrate and you will investigate, they will explain.

And there will be sometimes when they will deviate a bit, but then you need to anchor those sessions and get to the objective. And you need to be very careful not to break or not to deviate get deviated too much. Too much anchoring or forcefully asking your user to get back strictly to the objective may derail their openness to provide you with useful data right. So, you must focus on the correct relationship model in order to ensure that you get good quality and accurate data.

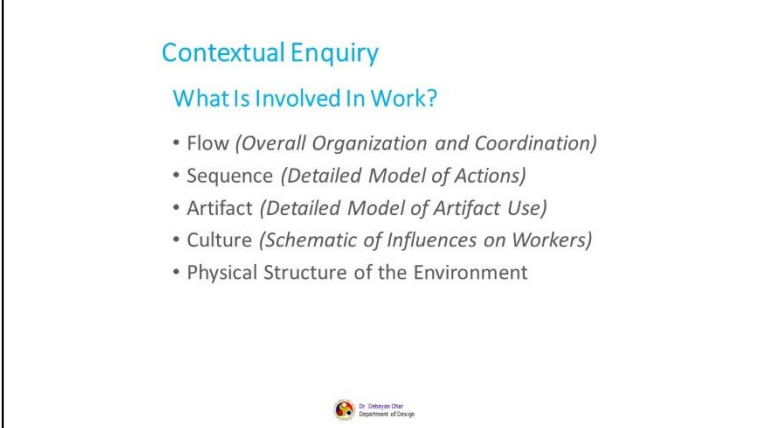(Refer Slide Time: 38:42)

Now, let us come down discussing on modeling the work. So, contextual enquiry produces huge amounts of detailed knowledge about the customer or we are using the word customer here, but do not interpret as this, it can be your user or your respondent. You cannot make an average of all the qualitative data and draw insights that is not what you are going to do that is not the objective of data interpretation.

So, work models provide a coherent way of structuring all these detailed data revealing the underlying structure. So, work models us in getting into the detail of this data and uncover the underlying structure. See we are interested to observe the patterns, is not it? Of the work practices that are dominant across the sessions. And therefore, we must use

these work models to understand and capture the underlying structure of the or the patterns of the work practices.

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And what are how are these work models created or what are actually the work models? These are the work models, the flow model, the sequence model, the artifact model, the culture model and the physical model are the 5 models work models that we can create from the observational data and the interview sessions together that we are conducting as part of the contextual enquiry process.

What is a flow? Flow means a flow model it enlists all the overall organization and coordination related data together. The sequence model it highlights the detailed model of all actions, activities the artifact model provides detailed model of artifact use and the culture model it provides schematic of influences on workers. So, these is all about the influences that influences decision making for the activities that they are performing and finally, you have the physical structure of the environment in the physical model.

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So, let us see each model one by one. Now, the purpose of flow model is to capture what? The roles of the individuals who are involved in the activity or the work process or work practices ok. Roles: what do what are the roles they have? Are they manager is it a discussion between a manager and a staff, a manager and the boss, manager and the driver whether it is a discussion between a faculty or the student or the mother and the child what are the roles they have?

So, you will identify the roles of the individuals who are involved in that activity or work practices. Nature of communication and coordination so important you must define the nature of the communication and coordination that is happening between these two entities, say the boss and the staff. So, this is the boss and this is the staff, what are they discussing about? What is the nature of interaction they are having? This you must get defined in the flow model.

The mechanisms that help and hinder mechanisms that support this interaction, this interaction that we are talking to talking about or that hinder; that means, that create barriers for this kind of interaction. And what are the strategies that they use to communicate right that is the purpose for developing a flow work model.
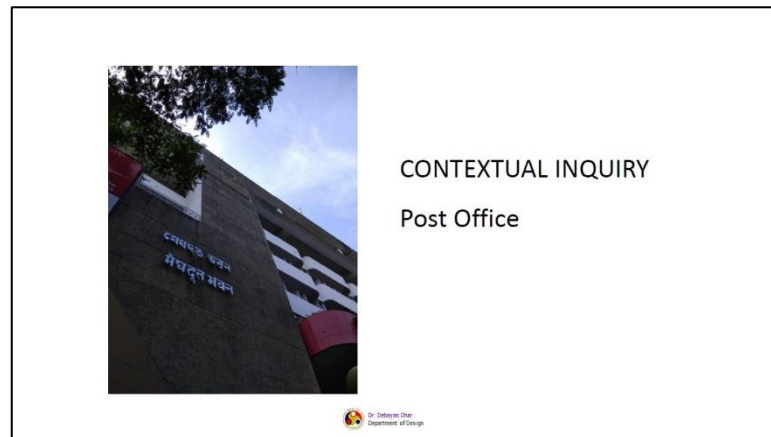
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Some of the key components of the flow model are individuals which are highlighted using bubbles with responsibilities like these bubbles right, groups of individuals with common actions. So, from individuals to groups of individuals places central to work, large box with responsibilities so these are the places central to work. Responsibilities: that means, it is associated to their role.

Flows; that means, arrows between individuals that highlight the relationship between the entities, the artifacts the products that are used in executing the tasks or the activity communication topic which are the labels what kind of communication they are having.

And important part, the breakdown of the lightning bolt. So, a breakdown in if anything you see that this task not getting completed you can have a breakdown like that a lightning bolt like a structure to highlight that you have observed a breakdown; that means, the task could not get completed.

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Let me show you one of the flow models for a contextual enquiry session that was done by one of my students of the post office.

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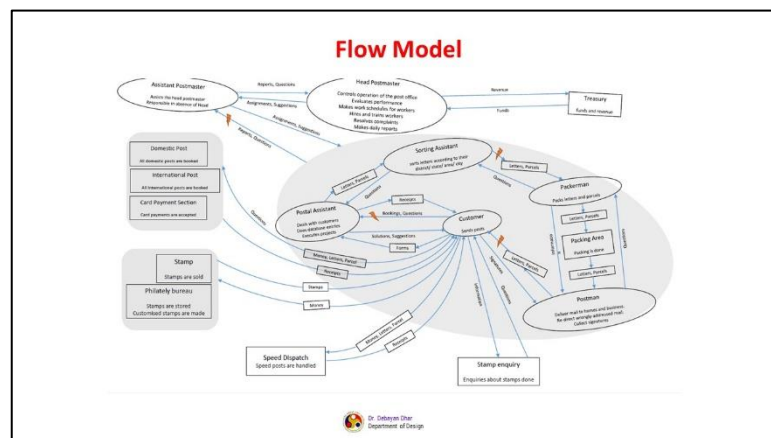
What you see here is a flow model, what you see here are the roles. See the roles here, the relationship the labels that define the relationships ok. The nature of interaction; large boxes are used to highlight the entities, the physical entities. See these are small artifacts that are used across these relationships between say the customer and these large entities right.
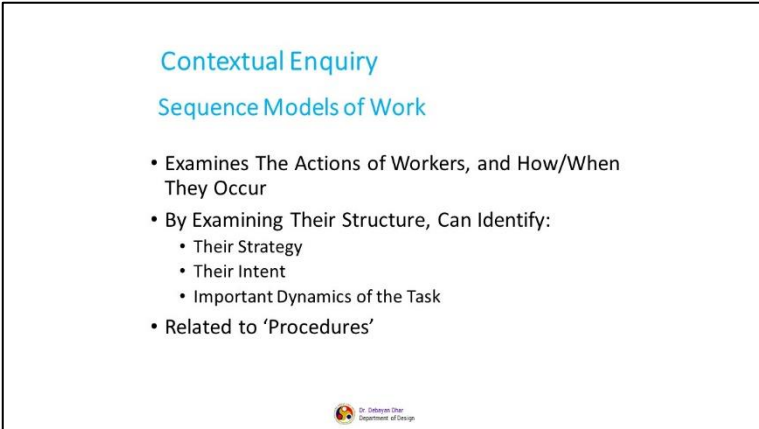
And what you see is some of the breakdowns that the person has observed. And where do these breakdowns exist? For example, the breakdown exists between the sorting assistant and the letters. Some issue the designer who was doing the contextual enquiry session he has observed, even he has observed a breakdown between the postal assistant and the

customer and it was related to bookings and questions related to bookings and other questions and he observed a breakdown here right.

Again, another breakdown happened between the entire process and the assistant post master and this was related to the reports and questions. So, this is a flow model that defines the entities, the individuals, the roles, the kind of artifacts that are used the relationship they have and also the breakdowns and issues that exists. Now, it might happen that you may not observe breakdown every time that is also possible right you will not be able to observe breakdown every time.

So, do not expect, do not forcefully put a start identifying breakdown if you observe something serious, if you observe that the activity could not be performed because of some situations then only you will classify that as a breakdown.

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Let us now come to the second work model for contextual enquiry. The second work model is the sequence models of work. And what do they examine? They examine the actions of workers and how and when they occur. So, the focus is how the activity is getting unfolded, activity is getting unfolded right. So, the focus is on the procedural knowledge right. So, by examining their structure you can identify their strategy, their intent, important dynamics of the task and all this tells you about the procedural knowledge.

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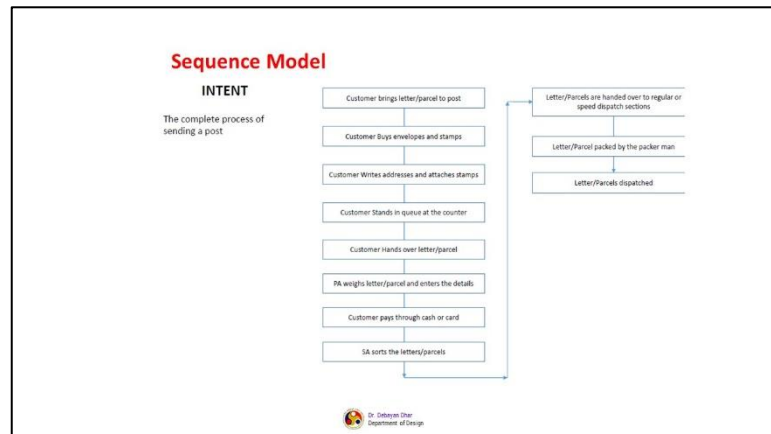
Let us see a sequence model of the same situation of the post office which the student has observed. Now, here if you see this is a sequence model of a customer who wants to complete the process of sending a post. So, this is his intent, he wants to send a post. And what is the sequence? So, just I would like to close this up the issue with presentation.

Now, what is the sequence he brings, so with this intent he brings a letter or parcel to the post, customer buys envelopes and stamps, writes address and attaches a stamp, customer sends stands in a queue, customer hands over the parcel, the postal assistant waits letter parcel and enters the details, the customer pays through the cash or card the sorting assistant sorts the letters and parcels.

Then the letter parcels are handed over to the to regular or speed dispatch sections little parcel packed by packer man and the later parcels finally, getting dispatched. These are the sequence how the entire activity is completed ok. So, you can see how the activity is getting unfolded this is what we refer to as procedural knowledge procedural, we are focusing on procedures. We here we see here the main intent with which the person has started this activity and the detailed steps that he undertakes for the activity to get completed this is a sequence model.

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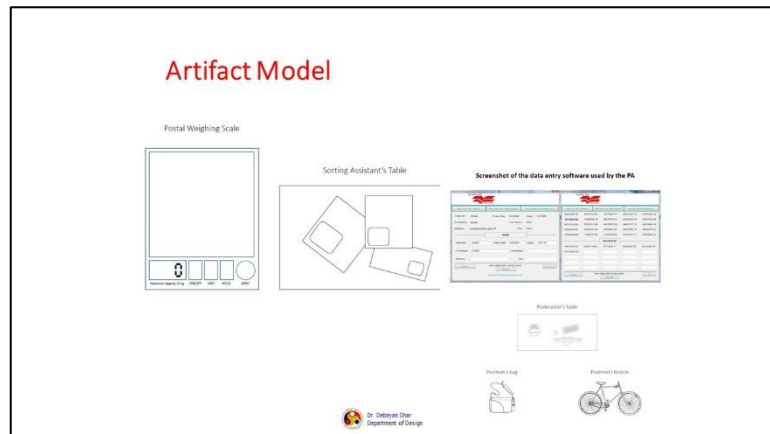
An artifact model: an artifact model it lists the products that are used in that sequence. So, we referred to the sequence that was; what was the sequence? The sequence was sending a parcel and during that during this process the entire sequence that we talked about had the postal assistant using the weighing scale, the sorting assistant using the sorting table. And then the postal assistant uses this interface to fill in the data and entered all the details for the required document to be processed this was the post masters stable and these are the artifacts that were used by the postman to complete the activity.

Now, while he may not, he may not have seen the postman to use the bicycle, but definitely he has seen that the postman having the bicycle and the bag. And therefore, it is being represented small here in a small way here. While these products have been highlighted here because they played a major role in ensuring that the activity gets completed ok. So, that is the focus on the artifact model. So, the artifact model provides us with these entities.

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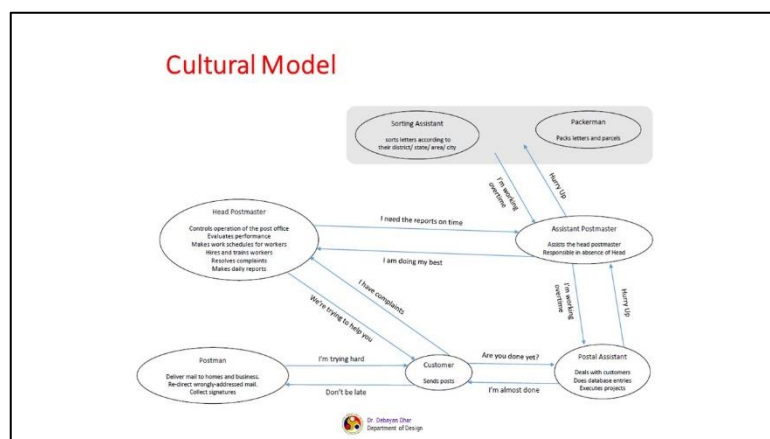
Now, let us come down to the most important part of the models which is the cultural model. Remember the cultural model allows us to identify the influencers, we want to identify the influencers. Influencers means the ones that influence decision making. So, whatever activities the student has observed in the post office he identified that the activities were influenced, the assistant postmaster activities that he has observed it was influenced by the sorting assistant by the packer man and he has explained how it get it gets influenced, it was influenced by the headmaster you know.

And this is the nature of the influence and even this postal assistant also because his responses dependent on these two entities and why this is important see whenever you want to design a software you want to design a specific interface, you must know how your customer or your user is making a choice is going for a decision is deciding and his decision is influenced by many factors.

So, you must know what those factors are and therefore, while you are observing a particular task you are doing a contextual enquiry you are observing somebody doing a practical activity, you must know why he is making this choice.

Why not that? Why he is using this, why not that? How did you open up this? Why did you choose to click here? All these questions are important. And you only get the details of the influencers if you start asking questions; that means, once you start conducting the interviews, he will start getting these answers responses to the regarding the influencers.

So, therefore, see direct observation will only provide you with procedural knowledge which are detailed in nature, but asking interview questions will allow you to understand why he is taking that particular decision and why he has taken that decision. What influenced them to take a decision, you might go for example, you might go to a market and see people buying vegetables, people buying clothes.

While you see the procedure, you must enquire that what made him to buy this and not that, what made him to discard this shop and go to somewhere else, that was a breakdown. These can only be interpreted if you ask questions. If you conduct an interview with the person after you have observed the session and this will provide you with an insight about the influences that are influencing their decision making.
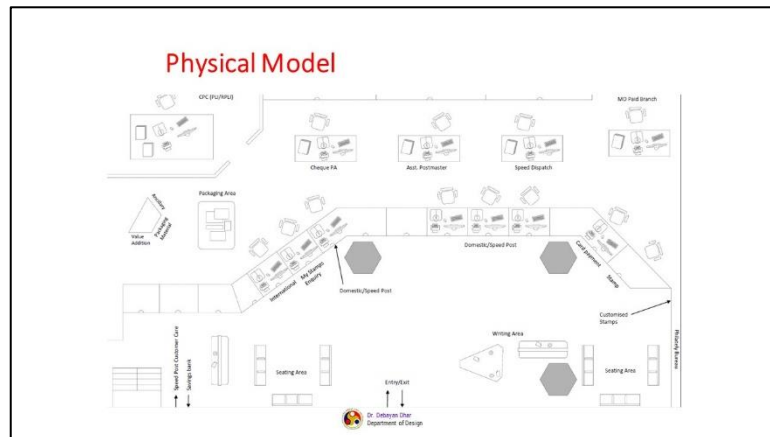
After cultural model the final one is the physic physical model. So, physical model is actually the layout of the space in which the entire activities performed. So, what you see here is a layout of the physical space of the post office that the student has gone there and conduct a contextual enquiry. Which desk was kept where, from where customer got the stamps, which was the sections he has identified everything in detail, you know. Where was the entry and exit where was the seating area, where was the writing area, where was the domestic speed post section right.

And international section, card payment section everything was highlighted in detail right, packaging area right, check postal assistant, assistant postmasters stable, speed dispatch everything was detailed out here. So, that is a physical model for your contextual enquiry data analysis. These are the five models, you go on creating these models as you start conducting multiple sessions with many many, at many many places and you look for the patterns, the dominant patterns the structure that gets reflected across these many sessions.

Those are the important aspects that will let you know what are the requirements to that necessities, the unmet means that you need to focus on.

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So, finally, what do you extract as an insight for from contextual enquiry? You your first priority to see if there is an issue, that is breakdown that is existing ok. Many a time you may not observe this. So, then the focus is a specific practice be improved then the focus becomes this ok. So, the focus is on behavioral and attitudinal data both, procedural knowledge and declarative knowledge both. We want to know the data about the experiencing self from our respondents as well as the remembering self.

They reveal a lot about our user's habits and their preferences. And we want to gather, identify the issues with an objective that we want to increase their productivity, their efficiency and the effectiveness of task completion that is what we want to do. So, this was all about contextual enquiry. We will learn understand about other techniques in the subsequent lecture sessions.