Usability Engineering Dr. Debayan Dhar Department of Design Indian Institute of Technology, Guwahati

Module - 04 Lecture - 14 Requirement Analysis - I

Welcome to lecture 14, module 4. In this lecture we are going to discuss about interviews in detail how to conduct and what are the considerations that we have to keep in mind, while we start going for interview session.

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Interviewing Users

• Interviewing favors depth over sample size.

• Being semi-structured, each interview will be unique, making it hard to objectively tally data points across the sample. Although we are typically interviewing in context, it's not fully naturalistic.

So, interviewing favors depth over sample size; that means, we are essentially interested to dig depth and go deep into the detailed information we want to extract detail factual information experiential data from interviews rather than having large quantities of interviews done. That is what we mean by interviewing favors depth over sample size.

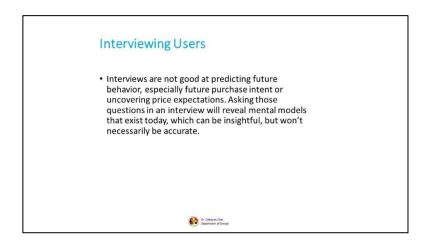
Now, interviews are generally semi structured in nature while a structured interview also possible, but ideally or generally it is semi structured in nature. So, being semi structured each interview will be unique because each respondents each interviewee and his environment is unique and it makes it hard to objectively tally data points across the sample. Since all the participants are unique their personalities are unique their environments are unique.

Therefore, it becomes hard to objectively identify a pattern across all the data points objectively while qualitatively it is possible. Although we are typically interviewing in

context it is not fully naturalistic. It is not fully naturalistic because of your presence because of the situation that you are there and your presence might feel intimidating for the interviewee.

And therefore, though you are going to the in contextual inquiry you have seen that you go to the context and start observation. Still your presence your line of argument the interaction that you will have with your respondents might make him feel jittery, might make him feel that it is not a natural environment where you are having this interview session. Many a time we have even conduct interview in a setting that is not actually the context in which work is being performed right.

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So, interviews are not good at predicting future; this is very very important. They are not something that going to tell you what is their future behavior going to be. What kind of if you are focusing on their buying behavior or purchase inter in intentions then they are not going to tell you what kind of purchase intentions or what kind of expectations they have.

So, asking those questions in an interview will reveal mental models that exist today right. So, whatever that they provide opinion their interpretation or the references that they draw these are all based on the data that is present today the experiential data that they have undergone in the present. And these only tells about the present and not about the future.

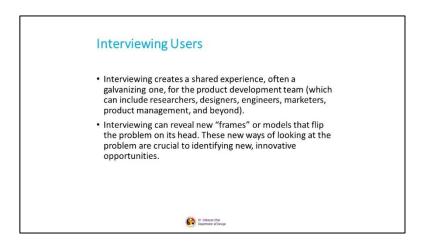
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So, these can be insightful these tells you a lot about their existing practice essentially, they do not talk about the future. You must remember that interviewing is not a social conversation this is not many people confuse a social conversation with interviewing no it is not.

It is not to inquire it is not to extract data from the respondents interviewing users involves a special set of skills, it takes work to develop those skills. The fact that it looks like an everyday act can actually make it harder to learn how to conduct a good interview because it is easy to take false refuge in existing conversational approaches.

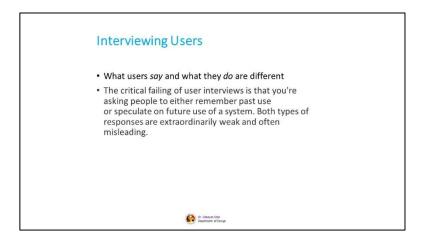
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Interviewing creates a shared experience, and often a galvanizing one. For the product development team and the team includes you know researchers, designers, ethnographers, engineers, marketers and many more. Interviewing can reveal new frames of models that

is what we have been focusing on. It reveals new frames and models these are what we refer to as the mental models right. That flip the problem on its head. These new ways of looking at problem are crucial to identifying new innovative opportunities.

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Now, some of the basic facts which should guide us when we go for interviewing are this what users say and what they do are completely different. Sometime we focus on this right, what they say and what they do their behaviors refers to work practice. Now, why we are making this statement? We are making this statement because you should remember that attitude is influenced by the remembering self.

And the remembering self is all about extreme experiences the peak end rule that we discussed from Professor Kahneman's work, right. How the experience was when the end of interaction happened. So, though it influences attitudes and attitudes are importance because attitudes influence your behaviours, but then essentially what they be do and what they say and what they do are completely different. We should first focus on what they do and then understand their attitude in order to make sense of their mental models.

The critical failing of user interviews is that you are asking people to either remember past use or speculate on future use of a system. And both these types of responses are extremely weak and often misleading. Because whenever you are asking about future they cannot predict a future they are only communicating their opinion based on their present circumstances, based on the present experiences. Therefore, it is misleading.

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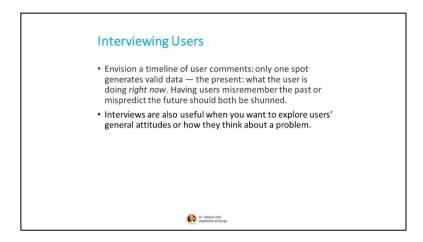
Interviewing Users Remembering past is difficult – For your users Human memory is fallible. People can't remember the details of how they used a website, and they often tend to make up stories to rationalize whatever they do remember (or misremember) so that it sounds more logical than it really is. Users are pragmatic and concrete. They typically have no idea how they might use a new technology based on a description alone. Users are not designers, and being able to envision something that doesn't exist is a rare skill. (Conversely, designers are not users, so it doesn't matter whether they personally think something is easy.)

Now, for users you must realize that remembering past is really a costly affair. It is very difficult human memory is fallible and people cannot remember the details of how they used a website and they often tend to make up stories; this is what where it gets dangerous. They often tend to make up stories to rationalize whatever they do remember. So, in case they are not able to remember their past or the events, which you are inquiring, they will make up stories about that.

And they will make up in a way. So, that it sounds more logical than it really is users are pragmatic and concrete. They typically have no idea how they might use a new technology based on a description alone because you must remember that they are not designers.

They are being able to envision something that does not exist is a very rare skill which only is something that can be associated with the design community. Similarly, thinking the designers as the end users or the users is also something that should not be considered.

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Now, envision a timeline of user comments: Only one spot generates valid data and that is what the present the one that is associated with the experiencing self right. What the user is doing right now? Having users misremember the past or mis predict the future should both be shunted.

Interviews are also useful when you want to explore users' general attitudes. So, now, we are gradually sinking into the idea of when it is being used when the focus is on getting data from the remembering self, right. That is the focus how they think about the problem. See the idea is to understand the mental model understand the mental structure that defines their behavior.

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Let us understand a brain dump, what do you mean by brain dump? So, say for example, you are a team of three four members and you want to start a project and the project first

starts with envisioning how do you identify your users requirement. One first thing before you start conducting user study at the beginning of the project is you start with having a brain dump and what does that mean.

That means get everyone's heads out on the table; that means, whatever information whatever assumption is there in the head of all the team members. Whatever thing they can visualize or memorize or they can recollect they should get those things out. Whether its real-time, face-to-face, in front of a whiteboard or asynchronously across offices or a wiki, talk through assumptions, expectations and closely-held beliefs, perspectives and hypotheses.

Before even start doing the user study, first discuss these assumptions. Bring out these assumptions you can use post chit to write down those assumptions and stick it into a board contradiction are inevitable. So, what I am thinking about user group, what my team member is thinking about user group, there can be divergent thinking there can be differences that is inevitable except that the point is not establishing a consensus. So, the idea is not that everyone should converge to a particular theme ok no, that is not the idea.

So, the objective is that we must start having these assumptions clearly defined before we even start with the user study objective specifically the interviewing users. So, by saying it loud and writing it down the issues leave the group specifically and enter an external and neutral space.

So, now, once all these assumptions are being brought out from each of the team members head and it is being written down in the post its and stick there in the board. You now know that this is what we actually are referring to or we have our core belief systems.

Now, let us start our user study with some objectives in our hand. This stage you will define whether you want to go to your users to confirm what you already know or whether you want to know or get information about things which you do not know. This activity which we are referring to as the brain dump allows you to clearly state your position.

Whether you are trying to go to you to the interview stage to figure out whether these assumptions that you had are in reality being phased by majority of them or are you interested to get data, which you are not aware of something which you are not aware of. This activity is essentially good one to give you this kind of details.

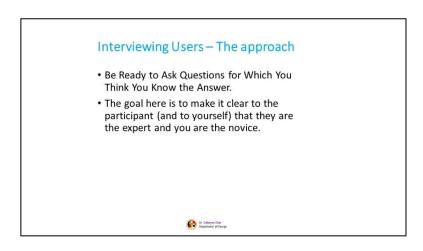
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So, while doing this activity you must remember that we are not doing this activity to converge to one idea if you want to anonymize the data you can write the post its the themes can be written down in the post it tags and it can be posted there in the board without the names of the persons who have written that. In that way it can be anonymized. So, the idea is not to converge the idea is to not to figure out whether somebody is thinking right or somebody is thinking wrong.

No; the objective is to shake up what is in your mind and free you to see new things that this is things that we already know. Let us now come out of this situation and think about a new perspective. And let us see if we can gather a new perspective of the situation that we are investigating on. Think about it as a transitional ritual of unburdening your mind your head with the loads of information.

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Now, how do we approach interviewing users? Be ready to ask questions for which you think you know the answer. That means you are there to verify your assumptions. The goal here is to make it clear to the participant.

And also of course, to yourself that there are the expert and you are the novice; same, the same principle that we have discussed in contextual inquiry applies here the tilting of the roles. They are your domain experts the respondents the interviewee is the domain expert you are the novice person you have hardly in a idea about the situation and the experience that your responders is talking about.

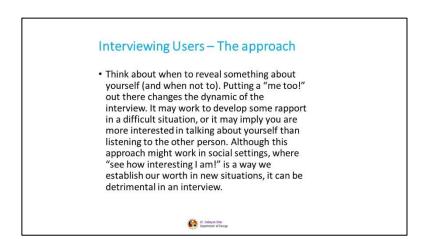
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Be selective when talking about yourself many a times what happens in order to open up your respondent we start talking about ourself. We talking about some experiences about the situation of the about the phenomena that we are referring to, but be very cautious very very selective while you start discussing about these situations.

You are bound to hear stories in the field that you strongly identify with whether it is someone's frustration with a broken part of you know of the windows or their passion for Pre-Code some Hollywood or some Bollywood movies or something like that. You know all that is important to connect with your participant it is not the best idea to get there by sharing your common interest. Remember that the interview is not about you it is about your user, about the interviewee, about the respondent.

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Think about when to reveal something about yourself and when not to because that can be leading that can bias your interviewee. Putting a "me too" just saying me too that I also; that means, I also had experienced the same feeling and not going into the detail of the feelings may be important and it might change the dynamics of the interview.

It may work to develop some rapport in a difficult situation when you know your interviewees are feeling uncomfortable they are not very smoothly opening up with their experiences. Or it may also imply that you are more interested in talking about yourself than listening to the other person that perspective can also be understood from by the user. So, be very careful. Although this approach might work in social settings, where "see how interesting I am" is a way we establish our worth in new situations. It can be detrimental in an interview.

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Interviewing Users – The approach You should definitely talk about yourself if doing so gives the other person permission to share something. A small revelation may give the interviewee permission to move forward with the interview.

You should definitely talk about yourself if doing. So, now, this is the caveat you should definitely talk about yourself. You should definitely talk about experiences if doing so provides impetus to the person to the interviewee or provides a permission to the person or give him impetus to share something from his side. A small revelation, but do not go for detailed revelations. A small revelation may give the interviewee permission to move forward with the interview.

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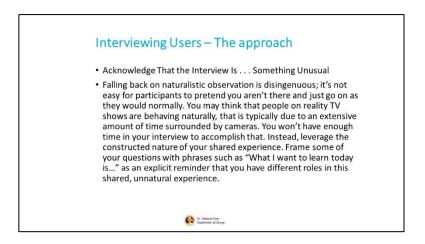
These are some of the important aspects for starting with interview sessions. You must work toward the tipping point now this is the most crucial aspect of interviewing. Understanding or getting the tipping point and what do we mean by tipping point? There is often a visceral point; it is called the visceral point in the interview where the exchange shifts from a back-and-forth question-and-answer; that means, this type of question and answer to question and answer to a question story setup.

Think of a situation where you ask a question and respond and answer it and multiple times it goes where in an interview session and at certain moment of time your respondents start providing you detailed answers. This is the time when your respondents start explaining the stories that is what we call as the tipping part.

The ideal an ideal interview should always have this kind of situations where when a question is asked a story is being explained. So, your interviewee starts visualizing a story going back to the past experiences start explaining the story to you. And stories are the richest insights because they have vivid details and your objective is to get to this point in every interview.

So, in every interview instead of just having a question and the immediate response and objective response and one-line response or two line response you should focus on a question where you are getting a story the respondent is giving you sufficient enough details there is a entire narrative experience that is being shared by the respondent to you.

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You must acknowledge that the interview is something unusual you know falling back every time whenever you want to get back to this kind of situations many a time we fall back to naturalistic observation and it is disingenuous. It is not easy for participants to pretend that you are not there and just go on as they would normally know because the relationship that you have with him.

You may think that people you know on reality TV they are you know very creative and they are behaving naturally, but then understand number of times that take on the situation. It is typically due to an extensive amount of times are being surrounded by cameras that they now forget about the situation and they are thinking about the particular context they are not aware of that situation anymore.

Now, you will not have enough time in your interview to accomplish that instead leverage the constructed nature of your shared experience. Frame some of your questions with phrases, such as what I am to learn today is; that means, you are explaining your objective you are trying to explain why you are there that would create some kind of rapport with your interviewee.

It is an explicit reminder that you have different roles in the shared unnatural experience and it will tilt the roles also. They will understand that they are the master, they are the expert and they are supposed to you are there to learn from them to get information from them and you are patiently listening to them.

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That is what we come down to the next important part. Listening: so, when you engage in conversation you are often thinking about what you want to say next that is every time whenever you interact with anyone just observe this in your everyday life. Every time you are listening you have an objective how to respond that is how you listen. And listening for the breathing cues that indicate it is your turn to speak.

So, you close the look at the gesture of your interviewee or the person with whom you are having a discourse that is not the way you should listen. You should listen to understand listening is the most effective way you can build trust you can build rapport. It is how you demonstrate tangibly to your participants that they have to what they have to say is important to you.

Interviewing Users — The approach • Listen by Asking Questions - In addition to demonstrating listening by what you don't say, you can also demonstrate that you are listening by what you do say. The questions you ask are signifiers that you are listening. Try to construct each question as a follow-up to a previous answer. If you are following up on something other than what the participant just said, indicate where your question comes from. For example, "Earlier, you told us that..." or "I want to go back to something else you said...." Not only does this help the person know that you're looping back, it also indicates that you are really paying attention to what they are telling you, that you remember it, and that you are interested.

And your gesture will explain that to them you should listen by asking questions in addition to demonstrating listening, but what you do not say you can also demonstrate that you are listening, but what you say to your respondents. The questions you ask are signifiers right.

This is the very very important topic that we are discussing. The questions that you ask actually signifies whether you are really interested are you listening do you have interest in what do you say what you ask for? Try to construct each question as a follow up to a previous answer.

If you are following up on something other than what the participant just said indicate where your question comes from. Like example earlier you told us that or I want to go back to something else you said like this it refers to the earlier question or the earlier statement that the interviewee has made this motivates the interviewee that you are listening.

And you are interested and you are carefully following what the person is saying. Not only does this help the person know that you are looping back that is what you know is a sick is a cue that you are listening carefully looping back. It also indicates that you are really paying attention to what they are telling you, that you remember it and that you are interested that is what it means.

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And finally, you must communicate that you are listening through your body language. Make and maintain eye contact with your participant. If you find eye contact personally challenging, take breaks and aim your gaze at their face, their hands and items they are showing you.

Using your eyes to signal your commitment to the interviews these are soft gestures, which plays a paramount role in enforcing trust in enforcing the situation making the situation lighter. So, that the respond comes up more about their experience to you. Acknowledge their comments with head nods or simple "mm-hmm" sounds.

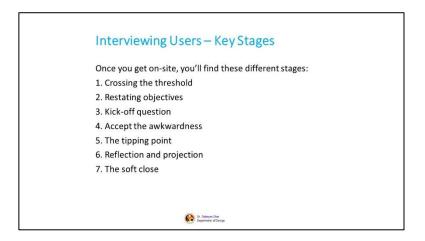
Be conscious of your body position when you are listening, you should be leaning forward you should not be leaning back and being in a relaxed position you should lean forward and you must be visibly engaged with what the person is responding to you. And when you are not listening remember the gestures of your body communicates that you are not concerned, you are not paying attention to what they are saying to your respondents and interviewees as well.

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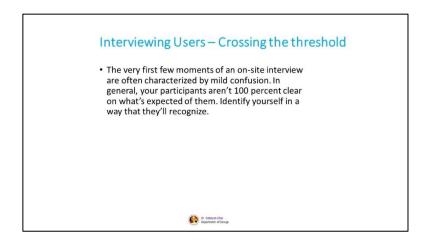
So, listening; the listening body language is important because it not only gets you in the state or reflects the state that you are in, but it also very clearly tells the person you are talking to that you are listening that is important. You should not give any cue out of your gesture that you are not interested or you are not listening if, such cues are given immediately the interview would have a breakdown. The interviewee will lose interest in speaking up to you or giving you information about the situation that you are asking for.

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Now, coming down to the key stages of interviewing users. Once you are there in the site there are some distinct stages for the interview and these are 1st, crossing the threshold restating objectives, kick-offs question accepts, the awkwardness, the tipping point which we just discussed now reflection and projection and the soft close we just quickly run up through all these things.

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Now, the very first few moments of an onsite interview are often characterized by mild confusion, it will always happen. And it happens because your participants are not sure are not 100 percent sure or clear what is expected out of them. What information do you want from them, they are not clear about that? So, identify yourself in a way that they will recognize use terminologies that they are familiar to right.

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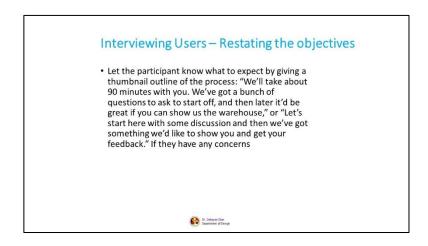
The next stage is restating the objectives. This is the point at which the interview itself really begins because you are explaining to your interviewee about your goals. You thank the participant for taking the time to speak to you and at a high level tell her what this is all about.

Now, many a time these are done in a very informal way to make the situation lighter to get to the to a situation where the interviewee and the interviewer feels comfortable. So, it

is ok to describe your works like it is a study for marketing research, if that is the most understandable way for the interviewee to know what you are doing remember you use words you use terminologies that they are familiar with.

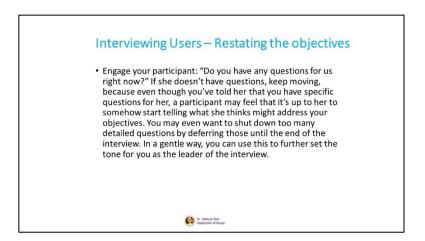
You do not use words that you are familiar with as an interviewer. The differences between user research design research and market research does not matter to the user. So, speak out use words that matters that make them understand what you are doing. You need not to be factually or semantically correct about your objectives.

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Let the participant know what to expect by giving a thumbnail outline of the process you can say like you know we will take about 90 minutes with you we have got a bunch of questions to ask to start off and then later it would be great if you can show us the activity or the place or that room right. Or let us start here with some discussion and then we have got something we would like to show you and then get your feedback; that is also an acceptable way of starting with.

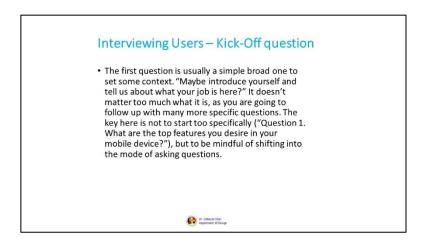
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And then if they have some concerns you engage with those participants. You ask them questions like do you have any questions for us right now? If the respondent does not have does not have any questions you can keep moving because even though you have told her that you have specific questions for her, a participant may feel that it is up to her to somehow start telling what she thinks might address your objectives.

You may even want to shut down too many detailed questions by deferring those until the end of the interview, but you do that in a very polite way. In a gentle way you can use this to further set the tone for you as the leader of the interview. But remember you are not an expert, you are not a master, you are a leader because you are tactfully anchoring the interview process that is what you are going to do.

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The first question; asking the first question the kick-off question the first question is usually simple broad one to set some context. May be introduce yourself and tell us about your what your job is here? Now, it does not matter too much what it is, as you are going to follow up with many more specific questions.

And the key here is to not start to specifically ask generic questions. What are the top features you desire in your mobile device? Asking generic questions, but to be mindful of shifting into the mode of asking questions. So, it is a it is a mode asking starting with generic questions to quickly getting into specific questions.

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As you proceed, you may encounter some resistance. Although many people (especially those likely to agree to participate) will be extroverted and comfortable, some people will be uncomfortable. There's no formula for how long it takes people to get past discomfort. Some people will get there with you in a few minutes, whereas others may take an hour. Rather than frowns and squirming, you may observe stiff posture and clipped deliberate responses. They may fend off your questions by implying that those are not normal things to be asking about, or providing little or no detail about themselves,

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describing their behavior as "you know, just regular."

Now, you need to accept the awkwardness and when as you proceed you will realize that you will encounter some resistance from your interviewee. Although many people especially those likely to agree to participate will be extrovert and they are comfortable, but some people are there will not be comfortable with your questions or with themselves being opening up with their answers.

There is no formula how for how long it takes, but generally it takes a long time to convince them to bring them out of their state of discomfort. Some people will get there with you in few minutes whereas, others may take an hour. So, rather than you know frowns and squirming you may observe stiff posture very stiff that is will tell you that they are not opening up and clipped and deliberate responses.

And they will be you know very tactfully will not provide you detailed answers. They may fend off your questions by implying that no, no these are not normal things that you are asking about and providing little or no detail about themselves. So, therefore, they are they

will not think and they will not start giving details to the questions that you are asking. They will not be describing their behavior and they will say you already know what should I say about that. You know this kind of responses you will get.

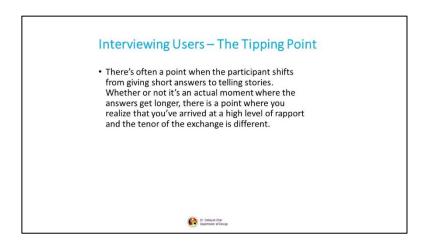
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Now, if you feel that you do not have permission to keep going or that this person does not really want you there, you are in this stage do not feel nervous. First, you have to accept that this is an awkward situation. It is not the worst thing in the world to be conversing with someone and feeling ill at ease right. Now, give your participant plenty of ways to succeed.

Now, what how do you come out of that situation. Ask her easy questions, keeping the inquiry factual straightforward and simple do not ask questions she is not comfortable with to make the situation lighter. Now, this is not the time to ask challenging questions either and to bring out props and stimuli be patient and keep asking questions and keep accepting acknowledging and appreciating her responses. That is the only way how you come out of the situation of being feeling awkward.

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The Tipping Point we already discussed this earlier this is what is the goal of any interview session. There is often a point when the participant shifts from giving short answers to telling stories. You know that is what a good interview should aim for giving short answer to telling stories. Whether or not it is an actual moment where the answers get longer there is a point where you realize that you have arrived at a high level of rapport and the tenor of the exchange is different.

You realize that the interaction is going so smooth that even if that while you are asking questions you are getting enough and sufficient details of the experiential state of the activities from their past they are taking time thinking about the situation and providing you great details. These are the are situations that are ideal in nature this is what we should aim for.

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Interviewing Users — Reflection and Projection • The deepest rapport comes when the participant has spent enough time immersed in the topic in a supportive and exploratory fashion. By this time, you've presumably captured many of the details around process, behaviors, usage, and so on, and are ready to move into the higher-level part of the inquiry. Her responses drift into sweeping statements about herself, her goals, her dreams, her past, the future, our society, and so on. You are now fully drawn into her world. Just because people are speaking about a future doesn't mean it's an accurate prediction. It's what these predictions and reflections reveal.

The deepest rapport comes when the participant has spent enough time immersed in the topic in a supportive and exploratory fashion. By this time you have presumably captured many of the details around process behaviors usage and so on, and are ready to move on into the higher level part of the inquiry.

Her responses drift into sweeping statements about herself, her goals, her dreams, her past, the future, society and so on. Understand the qualities of the statements that are being said. Statements about herself, her goals, her dreams, her past, the future and the society and all these reveals the mental model that we are so interested to understand.

You are now fully drawn into her world just because people are speaking about a future does not mean it is an accurate prediction. It is what this predictions and reflections reveal and you must know that while they are predicting future they are doing it on the base of their present experiences.

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And finally, you come to the stage of the soft close. The winding down of the interview can be a soft process. Remember, physicians and therapists there are they are familiar with the doorknob phenomena and what does that mean? That means, crucial information is revealed when just the patient is about to depart it is called the doorknob phenomena.

So, consider keeping your recording device on, if you are recording what the respondent is saying or writing down. Ensure that you keep that activity on and stick with it a couple of minutes more, those may be the bits of recorded data that pull the whole project together for you to analyze the phase.