Contextual Interview

1. Overview

Contextual Interview is one of the most common structures for contextual Inquiry. Contextual interview is an interview conducted in the job site. The purpose is to interview users while they are performing their day-to-day work duties. It consists of one-on-one interactions lasting between two to three hours. During these interactions the customer does her/his own work and discusses it with the interviewer [1]. At the same time, the interviewer observes them and can interrupt them at any time to ask questions.

Contextual Inquiry was developed by Karen Holtzblatt at Digital Equipment Corporation in 1986. Since then, Holtzblatt and Hugh Beyer have built on Contextual Inquiry to address the product design process; they practice Contextual Design in their company (InContext) [5].

2. Objective

The idea behind Contextual Interview is to identify a process for designing systems. Such systems usually support users from many different business contexts and cultures that engage in similar work. Contextual Interview provides an expedient process for gathering user information in the time available, and a mean of gaining appropriate and helpful information about user's work [2].

Traditional methods like surveys, structured interviews, or focus groups collect information about what people do and what they want in a new system [2]. But the approach of these traditional methods does not gather information in the moment in which users are actually doing their work. The information gathered is also limited to only include user's answers of questions previously created. Thus, the data gathered can be too abstract (summarized) and can lead to misunderstandings.

The Contextual interview deals with the limitations presented above by executing the interview in the interviewee's work environment while they are doing their work. At the same time the interviewer is observing their actions, asking some questions about their tasks, and asking the users to talk aloud including something that he did not understand as he/she works.

3. Principles

Contextual interview works with three principals [2]. These principals are simple and can be described as follow:

- Context: The context is very important. It is necessary to talk with people in their environment work during their ongoing work to understand better possible problems and/or challengers about their work and tools they use.
- Partnership: The interviewer needs to be aware that he is not an expert in the interviewee's work; he does not have the user's experience. He needs to listen what users have to say about their experiences. The role of the interviewer is only to understand users' work and experiences to after conceive technological solutions.
- Focus: The interview focus needs to be narrow and restricted to an exactly feature of the tool you expect to build. Prepare questions such as what is the work we expect to support? What are the key work tasks? And who is involved in making the work happens? [1]. These questions will keep you in the correct path to research about problems and solutions of a specific tool or process.

4. How it works

There are three macro steps that you can follow in order to do a Contextual Interview.

The first step is *Planning the interview*. Plan how an interview will be executed. In other words:

- Decide whom to interview (identifying customers),
- Define the interview framework (purpose, schedule visits, select initial users, amount of time, define questions) and,
- Set the focus before the interview.

The second step is *Conducting the interview*. Execute interviews collecting data during an interview.

The third and final step is *Analyzing and Interpreting Results.* Analyze and interpret the data collected during the interview to indentify the problem.

5. Benefits/Advantages

As a benefit/advantage we can enumerate the following points:

- Provides richer details about complex situations.

- Gives interviewers a deeper understanding of skills and knowledge needed to do the job. This may help in identifying job-site social and environmental issues that affect performance.

- Since the interviewer interviews many interviewees that share the same environment and tools, a consistent vision of work and possible problems is developed because each interviewee can have a different way to view the situation.

- Avoids misunderstands because interviewer has many factors (rich data) to analyze and interpret results to find conclusions.

6. Problems/Disadvantages

There is no perfect methodology, said that, here it is a list of problems / disadvantages you can find.

- It is time consuming to conduct interviews: each interview takes about 2 to 3 hours.

- It is difficult to schedule interviews: find companies and people that want to participate. When you find a company, it is hard to book interviews that optimize the time of the interviewer and the avoid overlapping of interviews (interviewed available time).

- It has high cost: the interviewer must spend many hours interviewing.

- Requires a very skilled interviewer: interviewers need to know very well whom, what, and when to ask questions.

- Can disrupt the work process: users will have a strange person observing them. This can decrease their performance.

7. A simple worked-through concrete exercise

Let's say that Microsoft has created a new .net framework, .net framework 4. The framework is in the beta version and is available to developers. Microsoft needs to know what these developers think about .net framework 4 and which problems they are finding.

Microsoft has done a survey in order to identify the problems with its new framework, but only a few people answered. Then, Microsoft decided to do interviews, but the answers were very abstract. Developers said that the new framework has many problems, but when the interviewer asked about which problems they had, interviewees could not give a direct answer or describe a specific problem.

After having such troubled feedback, Microsoft decided to conduct Contextual interviews. To accomplish this goal, Microsoft decided to contract a Contextual Interview specialist.

The specialist had to plan the process. The first step was to identify companies that were using the new framework and see if they would allow theirs developers to be part of an interview process. He/she had to select the interviewees and schedule the visits, which were key steps in the whole process.

The next step was to prepare the questions. The questions must be related to the users work. The goal was to set the focus before the interview, making notes on key issues of the framework identified from previous information.

As Microsoft needed this information as early as possible, the specialist decided to work with his team (3 interviewers: multiples interviewers).

Each interviewer followed the same steps for each interview:

- Introduction: The interviewer tried to establish a relationship. He turned the camera on and introduced himself to the interviewed and told him why he was there. The interviewer obtained the verbal consent from the participant to use the data gathered during the session. The interviewer also informed the interviewed that he was interested to know more about his work using the .net framework 4. He informed that he intended to spend 2 to 3 hours in this interview and the interviewed could have a break or that it could be ended at any time if the interviewee wished so. He asked the interviewee to give an overview about .net framework 4 and his opinion about it.

- Ongoing work inquiry: the interviewer asked questions and shared with the interviewee ideas about .net framework 4. He interrupted the interviewee every time that he had questions about the interviewee's work, but he took care to not make interruptions in inconvenient times. He also spent some time in silence just watching to have a better understanding of interviewee's work.
- The Wrap-Up: the interviewer reviewed the key points of the interview and clarified any uncertainties. He asked for permission to contact the user later in case of he/she had more questions.

The interviewers did the transcription of interview' notes after each interview. Thus, in the next interview they could include comments, insights, or questions that arised.

After, the interviewers got together and the main interviewer begun the meeting giving an overview of his/her interviews and talking about the observed users' work. The team reviewed the transcripts (data result of the interviews - notes and videotape) together and one of them wrote the understandings onto Post-its in order to organize the information.

They used affinity diagram to organize the post-its and as a result the diagram lead to a conclusion, identifying problems and issues in .net framework 4.

Finally, the specialist presented a final report that Microsoft used to find solutions to improve .net framework 4.

8. Reference

[1] Beyer, Hugh, and Holtzblatt, Karen, *Contextual Design: Defining Customer-Centered Systems*, by Morgan Kaufmann Publishers, Inc., 1998, Chapters 3, 4, 5, 6 and 7, pages 41 to 136.

[2] Holtzblatt, Karen, and Jones, Sandra, *Human-Computer Interactions: Toward the Year 2000,* by R. M. Baecker, J. Grudin, W. A. S. Buxton, and S. Greenberg, pp. 241-253 (**)

[3] Holtzblatt, Karen, Wendell, Jessamyn Burns, and Wood, Shelley, *Rapid Contextual Design*, by Morgan Kaufmann Publishers, Inc., 2005, chapters 1, 2, 3, 4 and 5. Pages 21 to 122.

[4] http://www.intranetjournal.com/articles/200108/id_08_01_01a.html

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[5] http://incontextdesign.com/people/karen-holtzblatt/

[6]http://civicactions.com/blog/2009/feb/09/how_create_effective_personas_your_projects_part_2

[7] http://www.usabilitypost.com/2009/09/09/contextual-interviews-and-ethnography/

(**) Recommended reading

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