The Focus Group Method

Extracted from: J. Kontio, L. Lehtola and J. Bragge, "Using the focus group method in software engineering: obtaining practitioner and user experiences," *Proceedings. 2004 International Symposium on Empirical Software Engineering, 2004. ISESE '04.*, Redondo Beach, CA, USA, 2004, pp. 271-280

Focus groups emerged as a research method in the 1950's in the social research as researchers expanded the open ended interview format to a group discussion [12]. Focus groups are carefully planned discussions, designed to obtain the perceptions of the group members on a defined area of interest. There are typically between 3 to 12 participants and the discussion is guided and facilitated by a moderator, who follows a predefined structure so that the discussion stays focused. The members are selected based on their individual characteristics as related to the session topic (so-called purposive sampling). The group setting enables the participants to build on the responses and ideas of the others, which increases the richness of the information gained [13].

Focus group sessions produce mainly qualitative information about the objects of study. The benefits of focus group are that they produce candid, sometimes insightful information, and the method is fairly inexpensive and fast to perform [14]. However, the method shares the weaknesses of many other qualitative methods – biases may be caused by group dynamics and sample sizes are often small – and, therefore, it may be difficult to generalize the results [15].

Currently, the method is widely used, e.g., in market research, product planning, political campaigning, defining business services, and in system usability studies [14,16,17,18,19,19,20,21]. Interestingly, the eWorkshops created by the Fraunhofer, U.S.A. Institute for Experimental Software Engineering can also be considered focus groups, albeit implemented over the Internet and using a very specific format [22].

There are several textbooks and detailed guidelines available on how to plan and run focus groups [12,13,23,24,25,26], making it a method that is relatively easy to adopt and use consistently. McQuarrie [27,28] offers extremely useful focus group book reviews which help in selecting a proper book whether the reader is an academic researcher, an industry practitioner or a moderator.

Steps in Focus Group Research

Based on several sources on focus groups [17,23,25], we have summarized the main steps of the focus group research in the following.

<u>Defining the research problem.</u> The focus group method is best suited to obtaining initial feedback on new concepts, developing questionnaires, generating ideas, collecting or prioritizing potential problems, obtaining feedback on how models are presented or documented, and discovering underlying motivations [17]. The method is not suitable for testing hypotheses, making final decisions, obtaining quantitative assessments or opinions ("how much", "how many"), exploring issues with potential political or sensitive issues, studying complex issues that are difficult to grasp in a session, of defining prices or cost preferences [17].

<u>Planning the focus group event.</u> The focus group event usually lasts two to three hours and has a predefined schedule and structure. The number of issues to be covered needs to be limited so that sufficient time can be allocated for the participants to comprehend the issue and have a meaningful discusión and interaction about them. The limited time also creates a constraint on how complex issues can be addressed.

<u>Selecting the participants.</u> The value of the method is very sensitive to the experience and insight of the participants. Thus, the recruiting of representative, insightful and motivated participants is critical to the success of the focus group study. Depending on the type of research question, participants may be people that do not have much experience in the topic of the focus group – or may be seasoned experts that can rely on their years of experience when interacting in the group. It is generally recommended that some overrecruiting takes place as last minute cancellations usually happen. It may also be useful to use pre-group questionnaires so that the session time is used most effectively for discussions.

<u>Conducting the focus group session</u>. The focus group session needs to be carefully managed for time while still making sure that all main contributions can be made during the allocated time. The session needs to be initiated by an introduction where the goals and ground rules of the session are explained to the participants. Each of the topics is usually presented one after another.

The discussion and interaction in a focus group session can take many forms. It can be a structured discussion, where the moderator acts as a chair; it can involve brainstorming techniques, such as affinity grouping or teamwork methods; polling and voting using preference votes or the Delphi method [29]; comparison games; or even role plays [17]. Langford and McDonagh [13] present 38 different tools and techniques that can be used to supplement a traditional focus group discussion.

There are several alternatives for data capture during session. There can be additional observers taking notes during the session, audio, video or keyboard recording can be used, and artifacts used during the session can be captured if the session involved techniques producing such artifacts. It may also be useful to arrange a debriefing session immediately after the session so that fresh observations and interpretations from the session are captured as fully as possible. It is obvious that relying on moderator notes will not be sufficient, being a moderator is a full-time job in a focus group session. It can even interrupt the discussion it the moderator starts making notes [13].

The role of the moderator is critical in a focus group session. The moderator should facilitate discussion but not allow his or her own opinions influence the discussion. The main task is to listen and probe deeper when necessary, requiring that the moderator must be able to grasp substance discussions quickly. It is often necessary to paraphrase participant points to ensure that the contribution was correctly understood.

The <u>data analysis and reporting</u> of focus group studies can use the methods used in qualitative data analysis [30,31,32,33,34]. Quantitative data, if gathered, can be analyzed using descriptive statistics and other standard quantitative methods.