The focus group method: Generating high quality data for empirical studies

Julia Hallas
Auckland University of Technology

This paper discusses the practical implications of planning for and conducting focus groups in order to ensure that the required data can be generated during the interview. The paper centres on three activities researchers new to the method could engage in, to acquire the methodological knowledge and practical skills necessary to generate the data for an empirical study. Within the context of an empirical study in progress, the three activities are discussed in detail: undertake a literature review, develop a comprehensive interview schedule, and conduct a focus group pilot. Researchers who centre their attention on these activities are more likely to succeed in generating the high quality data required, as they will be engaged in the most beneficial aspects of planning and conducting the focus group interview.

Keywords: focus groups, interview schedule, interaction, technology adoption

Introduction

"A focus group is a special type of group in terms of purpose, size, composition, and procedures" (Krueger & Casey, 2000, p. 4). Traditionally used in social science research (Merriam, 2009), the purpose of the group is to bring people together, in order to listen, and capture their attitudes, experiences or perspectives on a focused topic, or specific set of objectives (Krueger & Casey, 2000; Richards & Morse, 2013; Subramony, Lindsay, Middlebrook, & Fosse, 2002). Used as both an interview and an observational technique (Teddie & Tashakkori, 2008), the focus group allows researchers to gain access to issues around a topic, particularly when not much is known about that topic (Richards & Morse, 2013). For example, the data may be used to scope themes and write questions for other methods such as individual interviews or surveys (Rabiee, 2004; Walston & Lissitz, 2000).

This paper reports on one methodological aspect of a larger empirical study in progress. The aim of the multi-case study in progress is to investigate how the phenomenon of technology adoption occurs for lecturers within workplace contexts in a university. While the literature on the adoption of technology in higher education has tended to focus on students' perspectives, less attention has been directed towards understanding university lecturers' experiences (Gerbic, 2012). Additionally, Ottenbriet-Leftwich, Glazewski, Newby, & Ertmer (2010) argue that not only are lecturers' perspectives on technology lacking in the literature, when they are acknowledged, they tend to be portrayed as being incapable of implementing technology effectively. The study in progress study seeks to address these issues. Although studies on technology adoption have tended to take a quantitative approach (Rogers, 2003; Straub, 2009; Thong et al., 2006), this approach is less appropriate for studying the consequences of adoption (Rogers, 2003) by university lecturers. A qualitatively richer and deeper understanding of this this phenomenon may be achieved by meeting directly with lecturers, both collectively and individually, in order to gather stories of what it is like to adopt a technology for learning and teaching. Accordingly for the study in progress, focus groups were chosen as a way of scoping lecturers' experiences, with the data used to inform the subsequent individual interview schedule in phase two of the research. This methodological decision provided the author, who was new to the method, the opportunity to develop the knowledge and skills required to plan and conduct focus group interviews.

Drawing on the research and practice literature, this paper discusses three activities researchers new to the focus group method can engage in to acquire methodological knowledge and practical skills to generate the data required for an empirical study. The effort required to organise participants for focus groups is considerable, therefore the potential to take advantage of its interactive nature should not be jeopardised by inadvertently running it like an individual interview. The question that guided this paper is, what activities could a researcher new to the focus group method undertake in order to learn how to generate the data required for an empirical study? Three activities were devised and are discussed below: (a) undertake a literature review to develop knowledge about the kinds of data that may be generated for analysis, (b) develop an interview schedule to guide the process of generating the required data, and (c) conduct a pilot focus group interview to develop skills in generating data.

Generate the high quality data required for analysis

The first activity, a review of the literature, revealed a number of ways in which the high quality data required for analysis might be generated. The text - *Focus Groups* by Krueger and Casey (2000), provides an overview of how to plan for, conduct and analyse focus groups, including chapters allocated to developing questions, selecting participants, and reporting. A review of the literature highlighted the importance of considering at the planning stage, how the focus group data will be analysed. In their text, Krueger and Casey (2000) describe strategies for analysing the content in data - what participants discuss in the group. However the literature describes another strategy, that of analysing the interaction between participants – what participants are trying to learn, i.e. how they try to understand and conceptualise the issues under discussion (Wilbeck, Abrandt Dahlgren, & Oberg, 2007). Understanding how the interactive activities occur in the group may be enhanced by focusing on the co-construction of knowledge (Wilbeck et al., 2007) and it is this interaction between participants, which yields high quality data (Wilkinson, 1998). Consequently a main benefit of reviewing the literature was identifying the importance of active discussion to encourage the co-construction of knowledge between participants. By capturing this complex interaction between participants in focus groups (Richards & Morse, 2013), the interactive factors may be analysed, providing another dimension for researchers to reflect on their findings (Wilbeck et al., 2007).

Compared to the individual interview method, the main strength of the focus group method is the group dynamic created by the participants. Accordingly Wilbeck et al., (2007) argue that the interaction itself has rarely been evaluated, analysed or discussed about the focus group data collected for empirical research. Findings are often reported using individual quotes from participants, giving "the impression that individual viewpoints can be isolated from the context in which they were expressed" (Wilbeck et al., 2007, p. 259). It is the social interaction in focus groups that create synergies; encouraging participants to act in ways they would not do in an interview or survey (George, 2013; Wilkinson, 1998). When synergies are created within a dynamic group, researchers are able to "study how people engage in collective sense-making" (Wilbeck et al., 2007, p. 249), ensuring that the type and range of data gathered is often deeper, richer and more complete (George, 2013; Rabiee, 2004; Walston & Lissitz, 2000). This allows the researcher to analyse how participants' views are constructed, expressed, defended or even modified within the context of the discussion (Wilkinson, 1998).

The review of literature showed that the main strength of the focus group method is the co-construction of knowledge between participants. In order for a researcher to capitalise on this strength to generate the required data, it is vital to develop skills in planning the focus group interview, and this is addressed in the next section.

Develop an interview schedule

The second activity involved the development of an interview schedule. The interview schedule is a practical tool which acts as a guide to keep the moderator (the name of the person who facilitates the focus group) on track, reminding them of specific techniques which may be used to generate the data required. For the inexperienced focus group moderator, the development of an interview schedule is crucial to preparing for the focus group, and guides the session from start to finish. Aspects to consider include: length of session, selection of participants, scripting, and development of questions.

Consideration should be given to the length of time allocated for the focus group and the number of participants taking part. A typical session should take between 1.5-2.0 hours (Richards & Morse, 2013) and should consist of between 6-10 participants (Cohen, Manion, & Morrison, 2011; Merriam, 2009; Richards & Morse, 2013). However Wilbeck et al., (2007) suggests that smaller groups are best for encouraging interaction between group members.

As participants are usually selected for their knowledge of the topic to be discussed (Merriam, 2009), purposive sampling rather than random sampling is generally employed (Rabiee, 2004; Richards & Morse, 2013). Participants should be chosen for their homogeneity, while seeking some heterogeneity to encourage active discussion and contrasting opinions (Krueger & Casey, 2000; Wilbeck et al., 2007). The purpose of the multi-case study in progress is to gather multiple perspectives on the phenomenon of technology adoption, and by employing four diverse cases; differing viewpoints on the same topic are expected to emerge from the data. The participants belong to one university, and as a result they share similar characteristics. However, they were selected for their knowledge of technology adoption within one of four differing workplace contexts. Consequently they will have had different experiences of adopting technology for teaching, and can provide multiple but differing perspectives on the same topic. It is worth noting Krueger & Casey's (2000) warning that individuals do not represent everyone in a particular group, for example, in terms of gender or culture, however they may offer insights about the opinions of the group, and this limitation should be taken into account. The names of participants may be listed on the interview schedule, and in order to meet ethical requirements, a space to record that the consent form has been signed and returned is useful.

Ensuring that participants feel comfortable and that their contributions are valued (Wilbeck et al., 2007) is essential for encouraging active discussion (Rabiee, 2004). A supportive and non-threatening atmosphere may be created by informing participants that different perspectives are expected and welcomed, and that there are no right or wrong answers to be assessed by the moderator (Krueger & Casey, 2000; Wilbeck et al., 2007). Following this advice, it was useful to develop a script for the interview schedule that introduced the participants to the session, informed them that their perspectives are valued, and to remind them that they should keep the discussion confidential.

The interview schedule contains the questions to be asked during the focus group. Wilbeck et al., (2007) conclude that focus group questions encourage interaction when they are open-ended and designed to provoke emotional responses. They argue that it is the power participants hold in a focus group that improves the quality of the data. This is reflected when the questions empower participants to discuss what they feel is important, and in doing so, are able to use their own language, and express their worldviews, giving the researcher access to the discourse participants use to express the topic (Wilbeck et al., 2007). Krueger & Casey (2000) describe the use of a questioning route and categories of questions that researchers can use to develop the key questions for the focus group. Drawing on their ideas for a questioning route, the focus group questions for the multi-case study in progress were developed as follows. The intention of the *opening question* is to establish a sense of belonging to the group, and to identify participants' voices for transcription purposes. The purpose of the *introductory question* is to get everyone talking, so is designed to be easy to answer and to focus participants on the topic. The *key questions* are developed from the study's main research question, and the intention is to ask them from a simple to complex order. The *end question* gives participants the opportunity to reflect on the groups' discussion and to make any final comments about the topic that are important to them. Essentially, the *end questions* bring the discussion to a close, and as they are critical to analysis, they should not be left out (Krueger & Casey, 2000).

In summary, a schedule may contain the date, length of session; a list of participants' names; a reminder to collect consent forms; a script to introduce the session, and the interview questions. Each of these aspects is a reminder of a strategy, which may be used to generate the high quality data.

Conduct a focus group pilot

The final activity involved conducting a focus group pilot for the multi-case study in progress. All aspects of the focus group must be conducted in such a way that it generates the required data. Therefore this section discusses the focus group pilot, which was held to test the various aspects listed on the interview schedule, to gain practice in moderating a session and to determine if the data required for the study would be generated.

As Krueger & Casey (2000) state, food promotes conversation, so providing refreshments 30 minutes before the interview start time gave the participants the opportunity to be introduced to one another and to engage in relaxed, general conversation. During this time consent forms were completed ensuring that the participants were ready to start at the appointed time.

For recording purposes, the TranscribeMe app, see http://transcribeme.com may be downloaded onto a smart phone and used to record the audio file during the focus group. The audio file is easily uploaded to the website for transcription with a push of a button. To use this service as a client, an account must be set up and credit card details supplied for payment of transcriptions. The transcript for the focus group pilot was returned within two business days as requested, and after listening to the recording, minor changes were made to the text of the transcript, and notes prepared regarding specific interactions between participants which would be used in analysis. A useful aspect of the TranscribeMe website is that it provides an interactive form which estimates the cost of transcribing and the transcription turn-around time.

While conducting the focus group pilot, the worry of actually 'moderating' the session sometimes got in the way of concentrating on what the participants were saying. For example, moderator concerns centred on how to get through all of the questions in time, and how to move on to the next question when the participants kept talking and jumping in after each other. At one stage, some participants were asking questions of each other, and it seemed as though they were going off topic. However Wilkinson (1998) suggests that when participants ask questions of each other, they may be more on topic and more searching than the moderator might dare to ask

(Wilkinson, 1998). Participants may disagree or challenge each other; they may build upon the responses of other group members creating a synergistic effect (Wilbeck et al., 2007; Wilkinson, 1998). In focus groups, activating prior knowledge and elaborating new knowledge are important parts of the interaction process (Wilbeck et al., 2007).

The employment of the *probe technique* is essential to ensuring that the required data is generated. Probes are questions or comments, which follow up something that has been said by a participant in order to get to the heart of the matter (Krueger & Casey, 2000; Merriam, 2009). As an experienced focus group moderator, Merriam (2009) concludes that the fewer, more open-ended questions there are the better, allowing the moderator to really concentrate on what participants are saying and to follow up with the skilful use of probes. After the pilot ended, the participants were asked to provide feedback on the moderator's performance. The technique that they valued most was the probe question that included everyone in answering the questions. In particular a quiet participant said that they appreciated not being overlooked. As a result of conducting the focus group pilot, the questions for the multi-case study in progress were rewritten to ensure that they were sufficiently open-ended and intriguing enough to encourage lively interaction.

Conclusion

This paper has identified three activities researchers new to the focus group method can engage in to acquire methodological knowledge and practical skills to successfully generate the high quality data required for an empirical study. They are:

1. Undertake a literature review to develop knowledge about the kinds of data that may be generated for analysis. Then determine the kind of data required for the study in question.
2. During the planning stage, develop a detailed interview schedule to guide the process of generating the required data.
3. Conduct a pilot focus group in order to develop the skills for generating required data. In particular the pilot should be used to test the interview questions, and determine if the required data is actually generated.

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Contact author: Julia Hallas, jhallas@aut.ac.nz

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