Chapter 18

Using Multimedia Stimulus Materials in an Electronic Interview to Gain In-Depth Responses from Professionals: A Case Study

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ABSTRACT

In this chapter the authors describe a case study of an electronic interview with accompanying multimedia stimulus resources that was used to obtain in-depth data from a specific group of professionals. Set in the context of mathematics education, the case study sought data related to the interviewees' beliefs, professional decision-making, reflective observations, and evaluations of quality mathematics teaching. The experiences in the case study led the researchers to believe that an electronic interview with rich electronic stimulus material has great potential for other researchers. The quality of responses as affected by potential threats such as the effect of physical separation, time lapse, and response distortion including from social desirability, and participation in various aspects of the interview process are briefly reported. The main emphasis, however, is on the construction of the multimedia resources themselves and how they have contributed to building a shared language with participants to discuss subtle constructs.

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INTRODUCTION

In the social sciences, interviewing has traditionally been an important source of in-depth data, prompting a considerable body of research into interviewing techniques, for example, structured versus semi-structured interviews, and the use of stimulus materials. With the ready availability of electronic media, new opportunities have emerged for on-line and e-mail interviewing. In this chapter we describe and evaluate a case study in which an electronic interview with electronic multimedia stimulus materials was developed and used as part of a study to investigate quality mathematics teaching in schools. The electronic interview sought data related to the interviewees’ beliefs, professional decision making, reflective observations and evaluations of quality mathematics teaching.

In this chapter we describe a case study of an electronic interview with accompanying multimedia stimulus resources that was used to obtain in-depth data from a specific group of professionals. The case study was set in the context of mathematics education. An earlier paper on the same case study (Stacey & Vincent, 2011) reported details of an evaluation of the success of the interview process, considering the quality of responses as affected by potential threats such as the effect of physical separation, time lapse and response distortion including from social desirability. Participation in various aspects of the interview process was also reported. Whilst this paper summarizes some of these findings, it places more emphasis on the construction of the multimedia resources themselves and how they have contributed to building a shared language with participants to discuss subtle constructs.

A DEVELOPING THEORY OF INTERVIEWING AS A SOURCE OF IN-DEPTH DATA

The literature on interviewing as a research method accepts its undoubted role in providing access to the considered opinions and personal experience of participants (Gubrium & Holstein, 2001). The literature has also identified various threats to the quality of data from interviews, including low response rate and hence bias in achieved samples, response distortion, the influence of an adequate recording and interpretation of non-verbal behaviors of both interviewer and interviewee, and factors influencing the reliability of responses, such as the expertise of interviewees. These have been studied for traditional face-to-face interviews, and are now being studied for electronic ways of collecting ‘interview’ data.

Many studies have focused on the medium in which the interview is conducted. With the ready availability of electronic media, new opportunities have emerged for interviewing. The use of computers in interviewing is taking many different forms. Interviews may be conducted, for example, by e-mail (Bampton & Cowton, 2002) or using a combination of e-mail and face-to-face interviewing (Yun & Trumbo, 2000). Bampton and Cowton report the benefits of their electronic interview in terms of expense and time, but also point out certain disadvantages. Some interviewees responded immediately whereas for others there were lengthy delays, perhaps resulting in loss of spontaneity, although there was an opportunity to reflect on and modify a response. In a face-to-face interview, both interviewer and interviewee would normally be able to sense and respond to body language and voice inflexions. These visual...