

# Chapter 7

## Video-Enhanced Self-Administered Computer Interviews

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### ABSTRACT

*In video-enhanced computer interviews, questions are presented by virtual interviewers by means of pre-recorded video sequences. To date, two strands of scientific interest in video-enhanced data collection are identifiable. On the one hand, video-enhanced data collection is employed for interviewing respondents with special needs (especially deaf respondents) and young respondents. On the other hand, research is focused on the impact on data quality. Following previous results on enhanced data quality with audio-enhanced computer interviews, video-enhanced surveys are seen as a logical extension. In this chapter, previous research on both strands of applications of video-enhanced computer interviews is summarized to gain insight into preliminary evidence about the impact of these methods.*

### INTRODUCTION

Turning from paper to computer-based questionnaires (regardless of whether administered offline or over the web) offers a multitude of communicative elements which can be implemented in self-administered data collection. Multimedia

technology facilitates audio- and video-assisted computer-based self-administered interviews, where questions are asked with pre-recorded voice and video-sequences of a “virtual” human interviewer. Whereas there have been widespread applications as well as research about audio-enhanced methods within the last decade, this is still limited for video-enhanced methods. This chapter predominately focuses on self-administered

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computer based methods of (online as well as offline) data collection. Couper (2008) illustrates that offline and online trends of computer based data collection methods historically follow two different strands. On the one hand, online methods (web-surveys) are seen as the computerized extension of mail surveys to the internet. These methods (traditional paper-based mail surveys as well as web-surveys) are denoted as fully self administered methods in the sense that there is no direct contact between interviewer and respondent. In recent years, technological development also enabled the enhancement of web-surveys with multimedia elements (pictures, animations, audio- and video material)<sup>1</sup>. On the other hand, offline methods are seen as a development that follows a trend with its origin in face-to-face (FTF) interviews in that the interviewer is (partially or totally) replaced by self-administered paper-and-pencil (PP) questionnaires. Later on, paper questionnaires were replaced by computer-based questionnaires (computer-assisted self-interviewing, CASI).

Starting with text-based CASI methods (T-CASI), hardware development later on enabled audio-visual enhancement (AV-CASI) of purely text-based questionnaires especially by the use of audio (A-CASI) and video (V-CASI) material<sup>2</sup>. Self administered questionnaires (SAQ) in this strand of development were predominately used with sensitive topics to reduce response bias which are expected when answers have to be verbalized to interviewers. These methods differ from mailed and web surveys as interviewers are still present during the response process although the interviews are self-administered.

The motivation to utilize audio- and video enhanced computer methods (online or offline) in survey research again follows two strands. On the one hand, audio-visual computer questionnaires are suited to enable self-administered methods of data collection for special populations that are typically excluded when traditional (text-based only) questionnaires are employed. AV-CASI, for instance, has been used for respondents with

reduced literacy and special populations like young children and deaf respondents (Gerich & Bergmair, 2008; Gerich & Lehner, 2006; De Leeuw et al., 1997, 2003; Truman et al., 2003; Powell et al., 2002, Chan & Schmitt, 1997; Romer et al., 1997).

On the other hand, audio-visual methods are thought to be suited to improve data quality in survey research. This is mainly fuelled by previous research on A-CASI which has shown improved data quality compared to other modes of data collection (Couper, 2005; Turner et al., 1998; Lessler & O'Reilly, 1997; Tourangeau & Smith, 1996). It is argued along this line that the use of multiple channels of communication (textual, visual, and auditory channels) as well as the more human-like communication style (bringing social cues into self-administered interviews) helps to improve the understanding of questions and the support of respondents' cognitive processing (Fuchs, 2009a; Gerich, 2008a; Daft & Lengel, 1986). Furthermore, humanizing self-administered surveys is assumed to increase respondents' motivation and, hence, respondents' involvement during the question-answer process. Adding additional channels to interviews could help to make the communication more "natural" and emotionally satisfying (Sproull et al., 1996; Walker, Sproull, & Subramani, 1994).

However, human-like cues (e.g., voice or faces) and social presence are thought to evoke response bias like impression management, social desirability and reduced self-disclosure, which – in turn – would tend to negate the advantages of media richness regarding the processing of information (Cassell & Miller, 2008; Nass, Moon, & Green, 1997; Weisband & Kiesler, 1996).

In this chapter experiences and results of research on both strands of applications of audio-visual computer methods are summarized to give an overview of the current evidence regarding the possible impact of such methods for survey research.

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