

Chapter 16

Mixed-mode Surveys: When and Why

Edith D. de Leeuw

Joop J. Hox

Department of Methodology & Statistics, Utrecht University

Don A. Dillman

Washington State University

Data collection in surveys can be carried out in several modes, such as face-to-face, telephone, self-administered mail questionnaires, and web surveys. With all these possibilities, the choice for a specific mode is difficult, and involves trade-offs between the strong and weak points of each mode. A new approach is to use multiple modes and combine all strong points in one single survey, which leads to a multi-mode or mixed mode survey. Multiple modes can be used in different stages of the survey: in the initial screening and contact stage, in the main data collection stage, and in the follow-up stage.

Mixed mode surveys are attractive because one can attempt to combine the strong points thereby compensating for the weaker points of the different modes. However, such a decision should not be made without careful thought and planning. Introducing a second, or even a third or fourth survey mode into the data collection plan, implies a more complicated, more expensive, longer, and more challenging survey implementation. Mixing modes also raises the question of data integrity: since a specific mode can have an effect on the responses that are obtained, mixing modes involves the possibility of confounding mode effects with substantive effects. When different modes are used, it is important that in the design phase of the survey steps are taken to minimize the impact of mode effects. This chapter discusses the advantages and disadvantages of mixing modes, including strategies that can be used to minimize mode effects.

GLOSSARY OF KEY CONCEPTS

Adjustment. When different modes are used to collect data, an appropriate survey design allows for adjustment (removing mode differences) via statistical procedures.

Generalized mode design. Purposively constructing questions and questionnaires to be different in different modes with the goal of achieving cognitive equivalence of the perceived stimuli, thereby resulting in equivalent answers across modes.

Mixed-mode survey. A survey where multiple modes are used to communicate with the respondents. Modes can be mixed in the contact phase and in the actual data collection phase.

Mode effect. The effect that using a specific mode has on the responses that are obtained in that mode. Mode effects may be interpreted as a form of measurement bias.

Mode specific design. Writing questions and implementing a questionnaire in the best way for a mode, regardless of what might be done in another mode. That is, the questionnaire is optimized for each mode separately in an effort to improve the performance of individual survey modes, even if that results in different question formats across modes.

Preferred-mode-specific design. Designing a mixed-mode study where one mode is the primary or preferred mode, and other modes are seen as auxiliary. In this design the questionnaire is optimized for the primary mode and the questionnaires for the other (auxiliary) modes are adapted to the optimal design for the main mode.

Uni-mode design. From **unified** mode design; designing questions and questionnaires to provide the same stimulus in all survey modes in order to reduce differences in the way respondents respond to the survey questions in the different modes.