

# Measuring Time Use in Surveys - A Novel Validation of Survey Questions through Experience Sampling

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## Abstract

According to previous research, the method used to survey people's time allocation influences their response. Since it is still unclear to what extent stated time allocation in questionnaires reflects the actual behavior of people, examining the accuracy of time use survey questions is of crucial importance.

Using experience sampling we analyze in detail the congruence of stated time use and reported behavior elicited through a novel experience sampling method. Besides answering common survey questions on time allocation, the respondents were given a cell phone with which they were surveyed on their current behavior. The participants were contacted six times over nine days, including weekdays, Saturdays, and Sundays, and reported what they were doing.

Our comparisons of the survey questions and the experience sampling method indicate that the congruence between time allocation stated in surveys and the actual individual behavior depends on the attributes of the activity. In terms of different activities, long-lasting activities like market work on weekdays or household chores and errands seem to be accurately measured by common survey questions. In contrast, for more short-term activities or those around which people do not tend to structure their time—such as leisure—only moderate or slight correlations can be revealed between survey questions and our novel experience sampling method. The relatively small correlations indicate either a highly error-prone estimation of short-term activities by the cell-phone method or represent respondents' overreporting of rather sporadic and short-time activities in survey questions.

We conclude that activities with a long duration, like market work and chores, can be measured in a satisfactory manner by short survey questions whereas it is an open methodological question which method (experience sampling or survey questions) delivers more reliable and valid measures for short-term activities such as certain leisure activities.

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