# Time Diary Data and Research – issues to consider

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Full video: <https://www.youtube.com/watch?v=oCNXlFL2f3U>

Welcome to the third video of the NCRM online resource on time diary data and research.

In this video, I will briefly discuss 5 issues that researchers should keep in mind when conducting secondary analysis of existing time-use diary surveys.

Before deciding that a time-use survey is the ideal option for your project, conduct a thorough search of the variables provided by the individual and family questionnaires of your study of interest. Precisely because time diary instruments are burdensome for respondents, individual and family questionnaires that accompany them tend to be fairly “light” – and this means that it is difficult to find a full set of independent variables relevant to one’s study. This is not meant to discourage you – it might just be that you need to complement your analysis with data from other sources to fully answer your research question(s).

Construction of variables from time-use diary instruments can be fairly complex. It is actually great that some key measures are readily available in data deposits, such as activity duration or number of activity episodes. Deriving more complex measures, such as fragmentation of leisure time, may actually require a high command of data management and coding skills. As a doctoral student, I found creation of time-use variables fascinating and challenging – although it was certainly really time-consuming. But things are easier for researchers now; time-diary surveys’ technical reports often include code, which can be very helpful. I would also advise you to have a look at the coding resources provided by the Centre for Time Use Research.

As discussed in our first video, time-use diaries are usually administered for 2 days. This represents an ideal balance between sufficient time coverage and reasonable response burden. But one question that arises is whether the time-use that are observed in time-diaries are an effect of the surveyed time period or whether they represent actual intra-personal variation. In order to better understand patterns in your data, I would advise you to analyse data quality questions that accompany the diary that ask respondents if it was a typical or an unusual day. Also, make use of survey estimates on participation in longer-term activities to cross-validate your data – there is actually a lot of methodological literature on this topic that will help you.

Analyse missing patterns in time-use diary instruments. This is particularly important. As discussed, time diaries usually present low response rates of time-diary surveys, and this is linked to their high respondent burden. I should of course note that most literature on time-diary non-response largely suggests that this is not linked to standard sociodemographic variables that time-use researchers are usually interested in. Pay attention to item-missingness in the diary as well – often respondents do not fill in contextual columns, so you need to examine whether this is actually linked to lazy completion so to speak or whether it indicates “absence” of context, for example, a diarist who alone or a diarist who is not using a smartphone.

Finally, it is good to keep in mind that the high cost of time-use survey data collection has meant that these were not so frequent, both in the UK and across Europe. So, this means that you may not be able to conduct a detailed analyses of trends over time. And when it comes to cross-national comparisons, it is good to keep in mind that time periods do not always align across different countries. However, the good news is that this is likely to change due to the decreasing data collection costs brought about by novel time-diary app instruments. So, we are really hoping that in the next few years researchers interested in time-use will have a lot more high-quality data to draw on.

So, good luck with your projects, and thank you for watching!

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