Amsterdam Public Health

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Quantitative research – Data collection- Supporting and monitoring data entry clerks	Set-up & Conduct– Methods & Data Collection	
	VERSION	3.0

Aim

To secure high quality of data by accurate data entry, by supporting the data entry clerks and monitor their data.

Requirements

Standardized data entry procedures, including how to cope with missing data;
- Quality monitoring of first set of data entered for each measurement instrument;
- Problems/issues/missing data to be documented in a logbook by the data entry clerks (in programs such as Castor comments can be added (so no logbook needed));
- Immediate implementation of modifications in test protocol;
- Regular meetings to discuss data collection issues between the executing researcher and data entry clerk(s).

Documentation

- Standardized protocol for data entry, including how to cope with missing data;
- Protocol for quality monitoring of data entered;
- Logbook with problems/issues/missing data, kept by the data collectors (Options included in castor);
- Problems/issues that lead to modifications in the test protocol.

Responsibilities

Executing researcher:
- To supervise and monitor the data entry clerks;
- To carry out analyses on the first set of data to monitor the quality of the data.

Project leaders:
- To ensure that the data entry clerks are being supervised and monitored by the executing researcher;
- To ensure that the executing researcher carries out analyses on the first set of data to monitor the quality of the data.

Research assistant:
- To check for completeness of measurement instruments;
- To note problems/missing data in a logbook;

How To

Once data is collected by data collectors, the data are mostly handed over to the data entry clerks. It is important to keep track of and monitor their data entry, and to support them in any problem or issues.

Prior to data entry, the methods of quality monitoring need to be documented. It is advised to provide this type of information to the data entry clerks as well. Common programs for data entry such as Castor have built-in options to improve data entry quality. These options include thresholds for specific values to prevent typing errors. Use these options when setting up your data entry form to limit the number of errors made by the data entry clerks.

Supporting and monitoring data entry clerks

The executing researcher is advised to make a standardized protocol about how to process questionnaires. This is very important when data entry is being carried out by different people. Data entry clerks need to document what the most important problems are during data entry in a logbook. It is advised to sit down with the data entry clerk and discuss these issues that are not clear, differences in interpretation, problems, etc.

The executing researcher can create a so-called fake questionnaire, for data entry clerks to practice with most frequently occurring responses to questions with room for interpretation. Examples are:

- There is a question which includes a single response option, but the respondent has selected two answers;
- Illegibility of the respondent's hand writing;
- The respondent is asked to indicate in minutes how long he or she has taken on a particular activity. The respondent has provided '1' as a response – it appears that the respondent meant 'one hour', i.e. 60 minutes.

Data entry clerks can practice with such a fake questionnaire, which has to be checked and discussed by the executing researcher.

Monitoring the data entry
During the data collection period, small data sets can repeatedly be analyzed at variable level in order to monitor the entered data, i.e. 'continuous monitoring'. Examples of this include producing frequency distributions or random double data entry. This exclusively concerns descriptive statistics to search for data entry errors, and does not involve the analysis of the research question.

The questionnaires need to be checked for completeness prior to the data of the questionnaire is entered. If possible, missing data should be retrieved.

Audit questions
1. Has the quality monitoring been carried out on the first data set entered by the data entry clerk(s) and have the results of the quality monitoring been documented?
2. Have the data entry clerks been trained?
   a. If so, has a protocol or fake questionnaire been used?
3. Did problems arise during the data entry?
   a. If so, have these problems been recorded and solved?
4. Has the data been monitored at variable level during the data collection process?

LINKS

Link

DOCUMENT HISTORY

Version	Status	Date	Name
3.0	Revision	01DEC2020	Amber Boot
2.0	Revision format	12MAY2015	EMGO
1.3	English translation	01JAN2010	EMGO

1.2	Small addition	08JUL2008	EMGO
1.1	Addition of use of fake list, example input protocol	23NOV2006	EMGO

DOCUMENT APPROVAL

Role	Name	Date
Project Leader	Dr. Seta Jahfari	16MAY2021