

Table 1: Data quality problems, reasons, and solutions regarding the scientific value of the data.

**Scientific value of data**

<b>Problems</b>	<b>Reasons</b>	<b>Solutions</b>
Insufficient amount of data	Low number of participants	Address specific groups Use different media for PR Stress local importance of research Offer incentives (games, competitions)
Incomplete data sets	Unclear description of tasks	Work with communication experts Translate protocols to another language and back again Use multiple media for protocols Optimize protocols after pilot-testing with untrained people Train citizens in data generation Define data set (“cases”)
	High complexity of tasks	Reduce complexity of tasks Assign more complex tasks to small, better trained groups
	Long duration of data collection, high drop-off rates	Optimize duration of data collection Create personal links Create community and stewardship Give immediate feed-back
	Incomplete data entry	Allow upload only when all fields are filled
Low explanatory power	Over-simplification of data, missing hypotheses	Define hypotheses before study design Check if desired data requirements can be met by CS project
Low data accuracy	Qualitative data less accurate than quantitative data	Transfer qualitative data into quantitative data (check via pilot-tests)