Fulfillment of SIGSOFT Empirical Standard for Questionnaire Survey

Essential Attributes

- identifies the target population and define the sampling strategy
  - ✓ See point 6 in the study protocol.
- describes how the questionnaire instrument was created
  - ✓ See point 5 in the study protocol.
- describes how participants were selected or recruited (e.g. sampling frame, advertising, invitations, incentives)
  - ✓ See points 6, 7, 8, and 9.
- Analyzes construct validity (including content, convergent, discriminant, and predictive validity) ex post
  - ✓ See Section 6 (Threat to Validity), and point 14
- describes how responses were managed/monitored, including contingency actions for non-responses and drop-outs
  - ✓ See point 13.
- explains handling of missing data (e.g. imputation, weighting adjustments, discarding)
  - ✓ See point 13.
- step-by-step, systematic, replicable description of data collection and analysis
  - ✓ See point 11.
- analyzes response rates
  - ✓ See point 13.
- acknowledges generalizability threats; discusses how respondents may differ from target population
  - ✓ See Section 6. Threats to Validity
- provides the questionnaire instrument (as an appendix or supplementary materials)
  - ✓ We provide supplementary materials as appendix
- the questionnaire design matches the research aims and the target population
  - ✓ See point 6

Desirable Attributes

- provides supplementary materials including instrument(s), code books, analysis scripts and dataset(s)
  - ✓ See point 12

- characterizes the target population including demographic information (e.g. culture, knowledge)
  - ✓ See Point 10
- validates whether the instrument's items, layout, duration, and technology are appropriate (e.g. using pilots, test-retest, or expert and non-expert reviews)
  - ✓ See point 5.
- applies techniques for improving response rates (e.g. incentives, reminders, targeted advertising)
  - ✓ See point 7.