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Publication date:
2010

Document Version
Early version, also known as pre-print

Citation for published version (APA):
Bjørner, J. B., Suhr, A. N., Dziekanska, A., Rausch, I., Wolthers, A. R., & Mathiesen, T. G. (2010). *Applying cognitive interviewing for validation of questionnaire items in a Danish national working environment survey*. Poster session presented at 4th ICOH-WOPS Conference on Psychosocial Factors at Work, Amsterdam, Netherlands.

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Download date: 26. Dec. 2021

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Background

Questionnaire data is a important source for gaining insight in to psychosocial factors in the working environment. In designing the questionnaires we aim to ensure that: 1) data represent a valid expression of the concept we want to measure with little random variation, 2) data is sensitive in relation to measuring real differences or trends, and 3) we as far as possible are able to cover all the psychosocial dimensions we want to analyse. However respondents may misinterpret questions, be unable to recall relevant information or deliberate misreport confronted with sensitive questions.

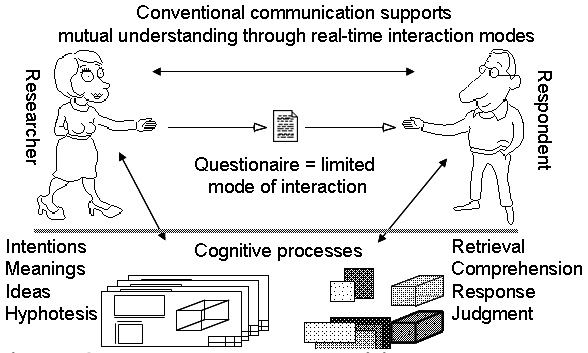

Figure 1 Survey response process model

Aim

The objective of the study is to use cognitive interviewing methodology to gain insight on respondent's response process problems in answering questions on psychosocial working environment factors.

Methods

29 cognitive interviews based on thinking aloud techniques and probing were conducted. Tourangeau et als (2000) theoretical four-stage model on survey response processes was applied.

Question
Have you been involved in quarrels or conflicts at your workplace during the last 12 months? If yes, with whom? [choice between, colleges, managers, subordinates or client/customers/patient etc.]
Response
Respondent: "Arhh… conflicts with… management…. not a manager?"
Interviewer: "What is a conflict to you?"
Respondent: [deep inhale] "An occupational conflict, that is, a conflict that typically arises at a workplace between management and employees. It is occupational about working conditions for example…. So if I read this…then the answer would be no with respect to quarrels and yes when it comes to conflicts."

Figure 2 Example from cognitive interview (transcribed data)

Results

Response process problems were identified 361 times in 71 of 77 tested items. Two hundred and two of these involved comprehension, 23 retrieval, 66 judgment, 46 response and 24 were not applicable to the four-stage model. 56% of the problems identified were of the comprehension type.

Survey response process model	Number of response problems
Retrieval	23
Comprehension	202
Response	46
Judgment	66
Not applicable to four-stage model	24
All response problems	361

Table 1 Results from data analysis (coded interview data)

Conclusion

The methodology of cognitive interviewing was efficient in identifying response process problems. It was not possible to relate all identified problems to the applied theoretical model. Some of the problems identified were not cognitive in nature and therefore they were not directly applicable to the four stage model. Many of these have to do with logical inconsistencies in question sequences or the structure of the questionnaire. Our findings are in line with the findings of Willis who argues that survey questions presents problems to respondents because they not in effective way are able to convey the intentions underlying their formulation in the first place. Finally, we found that response process problems can occur even in well constructed questionnaires.

References

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Poster presented at the 4th ICOH-WOPS conference, Amsterdam, June 14-17, 2010,