Response Latencies and Item Order in a Web-based Questionnaire

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Keywords Web based data collection, Questionnaires, Item-Latencies, Response-times, Item order.

Abstract

An underdiscussed, but basic assumption in the construction of many questionnaires seems to be that the position of an item within a questionnaire is relatively unimportant; the content of the questions or items is an over-riding concern. In order to study this assumption, a study based on 896 complete responses to a web-based questionnaire (Johnsen 2003) with 100 attitude type items was performed. Apart from a few introductory questions, the items were presented in a unique random sequence for each subject, one by one on separate screens where the opportunity to navigate (skipping questions or going back to previous questions) was removed. All items were ratings based on an eight-point scale with the positive (high) score at the same (right-hand) end. The server software recorded both the score and the time when the item was displayed on the client machine with a standard browser. Focusing on the sequence of the items, the main results indicate that (a) The response times (latencies) for the first few items (more than four, less than ten) in the sequence was higher than the corresponding latencies for items later in the sequence, (b) After the initial drop in the latencies, there was a small, but consistent reduction in the time used to respond to the items towards the completion of the questionnaire with a slight rise at for the last few items. Finally, (c) There was a small but systematic increase in the preference for the right or high end of the scale towards the end.

These findings indicate that the responses to the first few items in a web-based questionnaire may be based on a somewhat different process than the remainder, and that the first items in a questionnaire of this type therefore should perhaps be of a "dummy" type. The effect involved in the last two conclusions mentioned above was not large, but quite systematic, and should also be taken into consideration. Furthermore, recording of response times in computer- and web-based data collection procedures is normally simple to implement and are potentially revealing in respect to the processes involved in responding to surveys and questionnaires.

References

Johnsen, T. B. (2003). Web Surveys: Tools and considerations. Forskning ved Institiutt for Samfunnspsykologi 2001 (Proceedings: 5th Annual Conference of the Institute for Psychosocial Research).