This module is part of the

Memobust Handbook

on Methodology of Modern Business Statistics

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Theme: Electronic Questionnaire Design

Contents

General section

1. Summary

The electronic questionnaire can be considered as a complete software system, with a list of requirements the software must meet. This determines the approach to how the questionnaire is designed and tested. One dimension of this approach concerns the questionnaire's objective and its conceptual layer; the other one comprises the technical application of information and software system tools. Thanks to technological development, some aspects of the processing stage of the survey can be performed during earlier stages, such as data collection. The term "computer-assisted" implicates the design stage and the data collection phase. This term is also related to another aspect of the design, namely the question of who is to administer the software application at the data entry stage. Deciding whether the respondent is to be the user or the interviewer influences the preparatory stages of the questionnaire. Also, a successful completion of online forms depends on access to the public network, while the respondent must be equipped with a local computer system. Maintenance of the software is the task of the surveying agency.

2. General description

2.1 Response process

Eliciting responses in surveys can be treated as a task. The task approach analysis has distinguished several steps in this process making the foundation for response process models. This section treats the steps of the response process model as a background for a brief description how electronic technology may affect the response process. There is another module in the Handbook devoted to response process models, namely "Response – Response Process", where more information can be found on this subject. The cognitive approach to improving measurement instruments has gained broad acceptance. The four-step model comprising comprehension, retrieval, judgment and communication for social surveys has been expanded to suit the needs of the response process in business surveys. The aspect of cognition has been augmented to include an organisational frame. The response process in business surveys is more complex than in social surveys. The advent of electronic data collection adds another dimension of burden to the response process. From the cognitive perspective, the application of the electronic mode of data collection can be viewed in the light of its impact on the subsequent steps of the response process model. In the hybrid response model (Sudman et al. 2000, Wilimack and Nichols, 2001) *record formation step*, constituting the top of the model structure, is connected with data maintained by business systems and their management goals and the knowledge of those systems. The *respondent selection and identification step* refers to the cooperative nature of response in establishments. The respondent or rather, in the case of business surveys, the informant or co-ordinator, gathers data from various sources in the organisation. Hence, the need for a tool in the questionnaire software to enable propagation of a part of the questionnaire as well as the import and export of data. Another solution is to enable the option of printing a draft questionnaire to gather pieces of information from multiple sources. The *assessment of priorities* step, which recognises that the response task is treated as a non-productive activity from the point of view of a business, is followed by the task of *comprehension*, which, unlike the paper-based questionnaire, includes additional tasks. For example, limited computer skills can be an impediment in completing the task. Thus, while designing the questionnaire, the user must always remain in the foreground of the process:

it should be a complete tool equipped with clear instructions and an intuitive interface. *Retrieval of relevant information* can require additional assistance from the IT staff, which can be another burdensome factor. The electronic questionnaire contains internal editing, which is designed to monitor the logic and validity of submitted data at the *judgement of the adequacy of the response* stage. If the *Communication of the response* step is to be successful, information should be reported in a proper format. There can be a need to resolve format edits before data submission can be made. *Release of the data* requires a number of tasks to be performed to make sure that the data have been received by the statistical agency. To minimise this additional burden, the electronic questionnaire should enable the respondent to ensure the mandatory reporting has been fulfilled.

2.2 New design features

Screen layout – moving a piece of paper to the computer screen raises the question of how the paper content should be presented on the screen. The mixed mode of collection, used in business surveys, adds another question about whether the paper and its electronic counterpart should be similar in appearance. One option is to put all the questions on a single page. This would most probably require scrolling to navigate through the questionnaire. Another option is to display a group of items or sections on multiple pages. Dillman (2000) suggests that questions in electronic questionnaires should be presented similarly to those in paper counterparts. On the other hand, the use of skip patterns and interactive processing features rule out strict similarity between the two modes. The use of a two column format or a grid poses yet another problem: the expected order of answering (vertical or horizontal), which the user may fail to follow (Abraham et al., 1998). There is a need for connections between the pages with a clear way of navigating the questionnaire. Locating the place where the user actually is and the possibility to freely navigate through the entire questionnaire is a factor making the instrument easier and more comprehensible (Snijkers et al., 2007).

Editing – an activity aimed at detecting and correcting errors conducted with paper-based data collection as a post-collection processing, with the advent of electronic data collection has become part of the collection itself. Among the objectives to achieve are better data quality and cost reduction for post-collection editing. This is also an opportunity to reduce burden (Dowling, 2006). Editing rules, called edit checks or edits, are incorporated into the measurement instrument. In the case of an interviewer-administered data collection, he/she is instantly informed about failing an edit check. In a self-administered collection a respondent is notified about errors and should resolve edit rule failures. Questions arise as to what type of edits can be incorporated, searching for a balance between what users find acceptable and what is effective. A further dilemma is how to present messages about data that do not satisfy edit rules contained in the instrument. Another question is when such messages should be presented to the user: immediately after a value was typed in or after the entire portion of data was entered. Two types of edits can be distinguished: edits requiring data to meet editing criteria unconditionally – called hard edits, and soft edits – treated as a warning, which do not prevent the user from finishing and submitting the questionnaire. If there is a high probability of triggering numerous edit checks by a respondent the number of edits incorporated into the questionnaire should be reduced. (Nichols et al., 2006). According to the usability principles as much as possible should be left under the users' control; it is therefore recommended that respondents be allowed to submit data with unresolved edit rules to prevent non-response and respondent's perspective to provide most accurate data they have. Schonlau et al. (2002) advise placing edit messages close to the item, but the study conducted by Mockovak (2005) demonstrates that especially soft edits are frequently omitted, regardless of the placement of messages. However, not all post-collection editing processes can be moved to data collection editing. For one thing, some corrections can only be made based on an overview of all the collected data; secondly, complicated correction rules may be hard for respondents to understand; finally, they may be difficult to implement in the electronic questionnaire. For information on the data editing process in business surveys, the reader should refer to the topic "Statistical Data Editing".

Automatic routing – one of the main features of an electronic questionnaire is the use of automatic routings. Unlike paper questionnaires, where respondents can choose the order of questions, electronic ones with automatic routings eliminate routing errors (Leeuw et al., 1998). Skipping questions that do not apply reduces data errors. Previous answers influence the order of consecutive questions. This raises the matter of numbering the questions. Automatic routing can result in a situation where question number 3 is followed by question number 5. One solution is to "grey out" the inapplicable questions (Potaka, 2005), i.e., retain them on the screen without the ability to select them. This requires information for the respondent that greyed out elements do not require answers. Another factor was pointed out in a paper by Abraham et al. (1998). In interactive interviews, questions resulting in a skip pattern can be placed last on the page to make sure that the following questions are in the right order.

Calculations – adding up, subtracting and performing other calculations are expected to be done by computer (Snijkers et al., 2007). This can viewed as part of keeping data consistency and validity. As such, it is part of edit checks and validation policy. However, it must be clear to the respondents which items are added up. A related issue is where the results of calculations are to be placed. Figures placed at the bottom of the page and difficult to find can cause confusion. Another example of applying automatic calculations is an additional functionality attached to a questionnaire item as a pop-up window where preliminary calculations can be performed to obtain the necessary figure (Snijkers et al., 2007).

"Fill" capability – based on previously provided answers a computer-assisted interview can permit tailoring of the question wording. This functionality can improve question comprehension in interviewer-assisted surveys. In this way the burden imposed on the interviewer is diminished and can contribute to improved measurement. However, there is no empirical research on the effects of easing the burden by using "fills" (Groves and Nichols, 1986). A similar solution can be applied to groups of items or sections, whose results are to be added up and used as elements of other sections – in this case, those sums can be carried over automatically. Such a functionality, however, should follow an explicit logic so that the respondent is aware of the origin of the number (Snijkers et al., 2007).

Progress indicator – in a paper questionnaire the respondent can easily check the completion status by leafing through its content. This possibility is also expected by users in its electronic counterpart (Snijkers et al., 2007). However, being able to observe one's progress has some disadvantages (Dowling, 2006). If progress is perceived to be slow, the respondent can get discouraged and, in effect, abandon the questionnaire. Further, skipping patterns can be seen as a hindrance in establishing the exact state of completion when the questionnaire is tailored to a specific section of respondents. All in all, it seems that some kind of indicator of completion is desirable. Progress indicators can be presented in graphical formats as well as text.

Instructions – business surveys rely heavily on instructions. The likelihood of respondents using instructions diminishes with the growing effort required to find them. However, even making instructions more noticeable can produce limited results (Willimack, 2008). Nonetheless, respondents should be able to easily find instructions should they need additional explanation. Guidelines on questionnaire design advocate placing instructions close to questions. One method to place instructions in an electronic instrument is to hide them under a hyperlink, which can be clicked to open a pop-up window. Another approach is a hovering text appearing when the respondent is moving the mouse pointer over an element. It seems to be a good idea to follow paper form guidelines by placing essential instructions close to questions, i.e., within the text of the questionnaires. Instructions available by clicking a button should attract attention and be brief and clear (Snijkers et al., 2007).

The navigational path – there are several common guidelines both for paper mail questionnaires as well as electronic instruments. Those concern grouping similar items, separating various sections, using visual features and so on. However, with some aspects of electronic questionnaires, it is not always obvious if they should not be comparable to their paper counterpart. For example, moving backward and forward through a paper questionnaire is easy: all it requires is flipping through the questionnaire booklet. This way the respondent can review the previous answers and possibly correct them. Completing the questionnaire items can be interrupted at any time and resumed later. Hence, incorporating similar functionalities in electronic instruments is desirable when seeking user acceptance. The navigational bar can serve as a tool to locate a desired item. Two ways of navigation – an index of all sections of the questionnaire and a navigation button – are examples of simple and clear navigation (Snijkers et al., 2007). Providing the instrument with an option of saving the current state of work is a way to solve the problem of completing the questionnaire during several sessions. Another question is navigation between fields. This function should be consistent with other computer programs. Two typical methods are used in computer programs: using the “Enter” key and the mouse pointer.

Importing and exporting – data for business surveys are most likely stored in business records. Moreover, before completing a questionnaire item, information must often be gathered from different sources. A questionnaire offering the function of exporting templates for data preparation and importing data from spreadsheets, commonly used in the accounting environment, can facilitate the process of data retrieval and preparation. However, exploratory studies (Hak et al., 2003) indicate that respondents are not familiar with technical terminology, such as importing and exporting, but they find the ability to export the questionnaire or part of it useful. Another option is to make the exchange of data between business systems and statistical agencies automatic, which is called Electronic Data Interchange (Willeboordse, 1998). For EDI the reader may also refer to the “Data Collection” topic in the handbook. Procedures for extracting data from business records must be implemented in respondents’ systems. Establishments are reluctant to devote resources to it (Nicholls et al., 2000). Another related problem is how close statistical definitions meet business concepts, which calls for the need to define formats of data structure and coding conventions. For issues connected with data collection issues the user is referred to “Data Collection” topic.

Printing options – respondents may wish to print either the blank questionnaire or its completed version. This may be in line with their working practices or in order to review the entire questionnaire (Dowling, 2006). Another reason may be archiving purposes or as reference materials for future use (Morrison et al., 2005). This feature can be treated as an additional back-up to saving an electronic copy. The need for paper copies may also be motivated by the necessity to collect data from different departments or to consult employees from company branches (Snijkers et al., 2007).

Security – the confidential nature of business data raises the question of data security. In the case of electronic questionnaires, this involves restricted access to the questionnaire software and safe transmission to a statistical agency. As for software launched locally, authorisation may be required to submit the data; in a web environment the user must log in to access the questionnaire. In both cases, the respondent must obtain an identification symbol and a password. Because of the compulsory status of business surveys and the need for users to ensure that their data have been submitted successfully, the statistical agency must implement a feature for respondents to verify the status of deliverance. It should be remembered, however, that security requirements are usually in conflict with the ease of use, and contribute to the respondent burden (Dowling, 2006).

Auditing – in computer assisted data collection while the respondent filling in the questionnaire, some sort of information about the process can be gathered. Parallel to the activities of the user connected with completing the questionnaire items, the program can collect administrative data behind the scenes. These automatic data captured during the survey computer data collection are called *paradata* (Couper et al., 2010). The examples include the completion time, keystroke data, software failures. This kind of information can be used to track problems with questions and monitor the ongoing survey process. After the data have been collected paradata can serve for evaluation. The usage of paradata can be the foundation for interactively tailoring the dialog with the respondent (Haraldsen, 2013).

2.3 Visual design

In designing elements of the questionnaire visible on the computer screen and where perception could influence the question-answer process, it is useful to follow the principles of Gestalt psychology (Morrison et al., 2008, p.10):

- proximity – objects close to each other form a group of objects connected with each other in some way;
- similarity – the same font size and colour suggests a relationship;
- Prägnanz – the simpler objects are, the easier to understand and remember.

When planning the arrangement and order on the computer screen and preparing general recommendations for electronic questionnaire design, it is good to take into account the following:

Fonts – consistent use of font size, style and contrast can facilitate understanding and work with the questionnaire. Decisions once taken should be kept throughout the questionnaire. Example: Use of bold font for questions, standard text for a list of answers. The use of various fonts can thus be seen as logical and clear.

Colours – distinguishing answer spaces against the background helps the respondent to recognise where the space for entering data begins. Colours can help distinguish parts of the screen that serve different purposes.

Similarity – questions where the same kind of data is required should be of the same type and size.

Groupings – relations between questions will be emphasised by arranging them in sections, divisions, etc. and consistent numbering and giving titles. Elements in close proximity are perceived as belonging to the same group.

Graphical symbols – graphics plays an important role in questionnaire layout. Placing too many symbols or irrelevant symbols contributes to what is called "visual clutter" and distracts the respondent.

2.4 Usability

The term 'usability' covers issues connected with how to design products that will be user friendly and understandable for those they are intended to serve. This concern for usability puts the user at the centre of the designing process. The application of electronic instruments for survey data collection has opened new possibilities but has also posed new challenges. Complex branching or editing during data collection are just two examples of the potential of electronic questionnaires that are not available with paper ones. Adding more functions to products increases the list of requirements that have to be met during developing and testing. The desire for better effectiveness and efficiency leads to improved usability and clarity, which contributes to a positive perception of the product, which is not seen as imposing an unnecessary burden. Principles of visual design and the theory of usability can be applied to improve both paper and electronic questionnaires. A paper by Dillman, Gertseva, Mahon-Haft (2005) describes an example of combining the visual design theory and cognitive psychology to improve the usability of a paper questionnaire for business surveys. Cognitive psychology, which describes people's emotional reactions to various elements and the way visual design conveys meaning and affects comprehension, provides the basis for optimal questionnaire design. Norman (1988) laid the foundation for an approach to designing products, which can also be used to design, develop and test computer-assisted questionnaires. The starting point is the observation that things have their own psychology. The psychology of things manifests itself in the way people react when dealing with products. Based on this observation, general principles of design can be formulated, which can also inform rules for designing electronic questionnaires and, later on, developing and testing. Inspiration for a good design can be drawn from principles of:

- visibility – this principle stresses the need for the user to recognise the purpose of design associated with a particular feature of the product. One example may be applying the principle to questionnaire design, in particular, visual design, font variation or use of colours for different purposes. The logic and consistent use of the same font for the same purpose facilitates understanding and clearly communicates function by means of a visual feature.
- mapping – mapping connects the designing control of the function with the results of its execution. Mapping should be easy to understand. According to the theory, good mapping should be natural in the sense that the function is visible and its result complies with the user's expectations. The supposed effect is easy to understand when it belongs to the cultural environment and represents a standard operation. If one function is associated with a single purpose and equipped with a clear description, then it is simpler to comprehend.
- feedback – an action returns a signal of its effect. In addition to visibility and mapping, feedback is an important dimension affecting the use of products. Advances in technology have resulted in

many new ways of performing jobs and tasks. New functionalities are constantly being added to existing products. A sense of control over the product is conveyed to the user by feedback.

Several other principles can be listed based on the cognitive approach theory:

- evolutionary road – the designer's perspective and the target user's perspective are different. The gap between them can be bridged through iterative steps. Usable and understandable products are developed through the process of evolution. The product must be submitted to constant evaluation. Before a computer application reaches the user, it must be tested to asses a questionnaire is working properly enough to be used in the field. Of course, the scope of testing is limited by time and cost constraints. By submitting the product to the assessment of end users, a scope for revision is created. Thus, through a series continuous improvements the tool is becoming more invisible, while the goals it is designed to achieve are becoming more visible. An example of a good computer program pointed out by Norman (1988) is the spreadsheet. Spreadsheets are used to simplify complicated calculations and for this reason are appreciated.
- user-centre design – the theory discusses conceptual models of design: the image of the product is provided by the designer model and the user model. The process places the user at the centre. Sensitivity towards user needs implies avoiding an arbitrary choice of performing the required action. One of the technological development goals is to make the task simple to perform or effective. The simplification can be achieved by providing additional clues which make the task simpler and ease the comprehension burden. Manuals play an important role in this respect. The more complex a product is, the more instructions it requires. This is the case when it comes to business surveys, which tend to be based on intricate, technical definitions and concepts. Interestingly, as exploratory testing demonstrates, users tend to ignore instructions contained in separate files.
- designing for errors - making errors is a natural trait of human behaviour. Owing to time, cost and other constraints, the product itself cannot be perfect. There are various sources of error ranging from memory limitations and automaticity of action to similarity between operations. Built-in rules trigger an action and alert the user when a rule has been violated. The functionality of a computer program hides under commands and actions attached to them. Successful completion of an action depends on effective communication. Errors should be communicated in such a way as to encourage cooperation rather than be perceived as orders. It is advisable not to assume an imposing position towards the user and not to treat errors as a kind of negative behaviour. In other words, the language should be concise and polite and the terminology should be closely related to the subject matter the user is familiar with. Another principle stresses that control should be in the user's hands. Errors can be communicated in two ways: as warnings and as orders. Warnings are often ignored. The balance between the soft and hard treatment of errors is therefore a matter which deserves careful consideration.
- standardisation – standards provide a uniform way of perceiving rules of behaviour and consent so that representations of objects are understood in the same way. A consistent use colours or symbols, always for the same purpose, is one example of establishing standards. Another one is a clear mapping that connects the visual representation with its meaning. Adopting standards already used in the surrounding world is a natural and cultural constraint; such constraints narrow

down the field of possibilities. Applications of computer technology have not been around for long enough to pervade established standards and change quickly, which is why standards must evolve.

2.5 Evaluation and testing

Since the user-computer interaction is a key factor in developing electronic questionnaires, usability testing should be user-oriented. Testing should focus on interaction, where design and layout are the main features to be assessed.

Functionality testing is the second important kind of testing when CAI type questionnaire is used. Different functionality specifications need to be compiled depending on the mode of data collection. Aspects to be considered include such things as whether interviewing is performed by the interviewer or is self-administered, whether questions are asked face to face or by phone. All these decisions affect the testing plan and methods. The testing procedure is labour intensive and it is difficult to be sure if all errors have been found. However, the goal of testing is to obtain enough confidence that the questionnaire is working as described in requirements for implementation and minimise the risk of unexpected behaviour.

The heuristic approach to assessment can help to identify interface elements which need to be revised in order to improve the overall level of user satisfaction. Analysing the questionnaire in terms of cognitive assessment criteria can be a very important step, which can positively affect the whole survey process. General principles formulated by Nielsen (1994) are an example of rules that can be used for purposes of assessing and testing the electronic questionnaire.

The electronic questionnaire is a complex measuring instrument. However, despite its internal complexity, it should have a user-friendly interface. This is why testing procedures require a multi-dimensional approach. One dimension is concerned with the questionnaire as an instrument for collecting statistical facts, which is the purpose of the statistical process. The other one represents the technical perspective, where the questionnaire is treated as a piece of software.

3. Design issues

4. Available software tools

The Blaise® system is a widely-used, powerful, and flexible tool for computer-assisted data collection and processing. The Blaise language is well-suited to create computer questionnaires, from easy ones to complex instruments and surveys with hierarchical data structures. Blaise® is a registered trademark of Statistics Netherlands.

5. Decision tree of methods

6. Glossary

For definitions of terms used in this module, please refer to the separate “Glossary” provided as part of the handbook.

7. References

Abraham, S. Y., Steiger, D. M., and Sullivan, C. (1998), Electronic and mail self-administered questionnaires: A comparative assessment of use among elite populations. In *Proceedings of the Section on Survey Research Methods*, 833–841.

Couper, M., Kreuter, F., and Lyberg, L. (2010), The use of paradata to monitor and manage survey data collection. In *Proceedings of the Survey Research Methods Section*, American Statistical Association, 282–296.

Dillman, D. A. (2000), *Mail and Internet Surveys: The Tailored Design Method* (2nd ed.). John Wiley & Sons Inc., New York.

Dillman, D., Gersteva, A., and Mahon-Haft, T. (2005), Achieving Usability in Establishment Surveys through the Application of Visual Design Principles. *Journal of Official Statistics* **21**, 183–214.

Dowling, Z. T. (2006), Web data collection for mandatory business surveys: an exploration of new technology and expectations. Thesis submitted for the degree Doctor of Philosophy in Sociology, Department of Sociology, University of Surrey, United Kingdom.

Groves, R. M. and Nicholls II, W. L. (1986), The Status of Computer-Assisted Telephone Interviewing: Part II – Data Quality Issues. *Journal of Official Statistics* **2**, 117–134.

Hak, T., Willimack, D., and Anderson, A. (2003), Response Process and Burden in Establishment Surveys. *Proceedings of the 2003 Joint Statistical Meetings – Section on Government Statistics*, 1724–1730.

de Leeuw, E. D., Hox, J. J., and Snijkers, G. J. M. E. (1998), The effect of computer-assisted interviewing on data quality. *Market Research and Information Technology*, 173–198.

Mockovak, W. (2005), Comparing the Effectiveness of Alternative Approaches for Displaying Edit-Error Messages in Web Forms. Bureau of Labor Statistics, Statistical Survey Papers.

Morrison, R. L., Anderson, A. E., and Brady, C. F. (2005), The Effect of Data Collection Software on the Cognitive Survey Response Process. *Proceedings of the Survey Research Methods Section*, American Statistical Association.

Morrison, R. L., Stokes, S. L., Burton, J., Caruso, A., Edwards, K. K., Harley, D., Hough, C., Hough, R., Lazirko, B. A., and Proudfoot, S. (2008), *Economic Directorate Guidelines on Questionnaire Design*. U.S. Census Bureau, Washington, DC.

Nicholls II, W., Mesenbourg, T. L., Andrews, S. H., and de Leeuw, E. (2000), Use of New Data Collection Methods in Establishment Surveys. *Proceedings of the 2nd International Conference on Establishment Surveys*, American Statistical Association, Alexandria, VA, 373–382.

Nichols, E. M., Murphy, E. D., Anderson, A. E., Willimack, D. K., and Sigman, R. S. (2006), Designing Interactive Edits for U.S. Electronic Economic Surveys and Censuses: Issues and Guidelines. *Statistical Data Editing, Volume No. 3: Impact on Data Quality*, 252–261.

Nielsen, J. (1994), Heuristic evaluation. In Nielsen, J. and Mack, R.L. (eds.), *Usability Inspection Methods*, John Wiley & Sons, New York, NY.

Norman, D. A. (1988), *The Psychology of Everyday Things*. (Republished as *The Design of Everyday Things* in 1991 and 2002.) Basic Books, New York.

Potaka, L. (2005), Comparability and Usability: Key issues in the design of Internet forms for New Zealand's 2006 Census of Population and Dwellings. *Proceedings of the 5th QUEST Workshop*.

Schonlau, M., Fricker, R. D., and Elliott, M. N. (2002), Conducting Research Surveys via Email and the Web. RAND, Santa Monica, CA.

Snijkers, G., Onat, E., and Vis-Visschers, R. (2007), The annual structural business survey: Developing and testing an electronic form. In *Proceedings of the Third International Conference on Establishment Surveys, Montreal, Canada*, American Statistical Association, 317–326.

Sudman, S., Willimack, D. K., Nichols, E., and Mesenbourg, T. L. (2000), Exploratory Research at the U.S. Census Bureau on the Survey Response Process in Large Companies. *Proceedings of the Second International Conference on Establishment Surveys*, American Statistical Association, 327–337.

Willeboordse, A. (ed.) (1998), *Handbook on the Design and Implementation of Business Surveys*. Eurostat, Luxembourg.

Willimack, D. K. (2008), Issues in the Design and Testing of Business Survey Questionnaires: What We Know Now that We Didn't Know Then – and What We Still Don't Know. *Proceedings of the Conference on Reshaping Official Statistics, International Association on Official Statistics, Shanghai, China*.

Willimack, D. and Nichols, E. (2001), Building an Alternative Response Process model for Business Survey. *Proceedings of the Annual Meeting of the American Statistical Association, August 5-9*.

Interconnections with other modules

8. Related themes described in other modules

1. Data Collection – Main Module
2. Response – Response Process
3. Statistical Data Editing – Main Module

9. Methods explicitly referred to in this module

1.

10. Mathematical techniques explicitly referred to in this module

1.

11. GSBPM phases explicitly referred to in this module

1.

12. Tools explicitly referred to in this module

1. Blaise

13. Process steps explicitly referred to in this module

1.

Administrative section

14. Module code

Questionnaire Design-T-Electronic Questionnaire Design

15. Version history

Version	Date	Description of changes	Author	Institute
0.1	29-03-2012	first version	Paweł Lańduch	GUS
0.2	22-04-2012	second version	Paweł Lańduch	GUS
0.3	05-09-2013	third version	Paweł Lańduch	GUS
0.3.1	28-01-2014	minor revisions – EB review	Paweł Lańduch	GUS
0.3.2	29-01-2014	preliminary release		
1.0	26-03-2014	final version within the Memobust project		

16. Template version and print date

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