ADDED VALUE THROUGH QUALITY

Standards for Quality Assurance
for Online Surveys

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ASI Arbeitsgemeinschaft Sozialwissenschaftlicher Institute e.V.
BVM Berufsverband Deutscher Markt- und Sozialforscher e.V.
D.G.O.F. Deutsche Gesellschaft für Online-Forschung e.V.

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A. Introduction

Scientific online surveys that are carried out for market and social research purposes are subject to the **same** generally accepted rules of professional conduct and quality standards as surveys that are conducted by means of face-to-face, mail or telephone interviews. As with all other types of survey, the specific experience and knowledge of a research agency in the particular field of research and the scientific qualifications of its staff are fundamental requirements for ensuring quality in the execution of online surveys, too. Beyond this, a suitable "philosophy of quality" on the part of the research agency is essential, i.e. an appreciation of the need for and the endeavour to achieve high scientific quality in the research results.

The rules of professional conduct in German market and social research are set out in the "ICC/ESOMAR International Code of Marketing and Social Research Practice" along with the "Declaration for the Territory of the Federal Republic of Germany" which precedes the Code, and in the various guidelines issued for German market and social research. With respect to the ethically and legally relevant issues when conducting online surveys, particular attention should be paid to the "Guidelines for Online Surveys".

The scientific quality standards are documented in the „Standards for Quality Assurance in Market and Social Research" jointly published by the associations of German market and social research. The present "Standards for Quality Assurance for Online Surveys" put the general quality standards for market and social research in concrete terms for online surveys as a specific technique for collecting data. In view of the rapid development of information technologies, the following discussion must be rechecked at frequent intervals where technical details of the execution of online surveys are concerned, and where necessary be adapted to take account of these developments. On the other hand, the fundamental scientific demands made of online surveys and other data collection instruments used in market and social research remain largely unaffected by the developments in information technology.

The „Standards for Quality Assurance for Online Surveys" describe and document the relevant quality criteria for the execution of scientific online surveys. Thus they aim to enable clients to fundamentally identify and compare the quality of different research proposals.

B. Definition

The term „online survey" as defined here includes surveys in which the respondents ...

– complete a questionnaire online on the Internet, whereby it is stored on a server,
– download the questionnaire from a server and return it by e-mail,
– receive and return the questionnaire by e-mail.

These interviewing techniques can be used both for ad hoc single surveys and follow-up or repeated surveys (including access panels), and in some cases combined with each other in a single study.

The present „Standards for Quality Assurance" have been developed primarily for **scientific online surveys.** Additional or other quality criteria may in some cases be relevant for online research instruments which do not claim to be representative (e.g. group discussions).

C. Design of the Study

1. Overall Population

In order to be able to speak of a study being representative, the participants must be selected with reference to a population that is clearly defined in terms of nature, region, and time, and the people to be selected must be approached individually using a clearly defined selection procedure with reference to the selection criteria.

As a rule, representativeness can only be achieved in online surveys with respect to Internet users as a whole, or with respect to specific groups of Internet users or users of specific Web sites as the target group of the study. Generalisable statements about other target groups on the basis of online surveys are only possible if the online

penetration of these groups is demonstrably very far advanced (similar to the presence of telephones in private households), or if people selected offline for the survey are provided with e-mail or Internet access should they do not already have it.

2. Selection of Participants

Participants of online surveys can be selected or recruited both offline and online. This is equally true of single surveys as well as repeated and follow-up surveys (including access panels).

Online surveys claiming to be representative for the target group of **Internet users as a whole** should currently be carried out on the basis of prior offline selection or offline recruitment using appropriate screening techniques, since there is currently no unambiguously defined basis for the online selection of Internet users, nor do Web sites exist the structure of whose visitors is representative for Internet users as a whole. For this reason, it is not possible to select or recruit respondents online by means of random procedures.

The online selection or online recruitment of respondents by means of quota methods only makes sense if reliable and up-to-date structural data about Internet users are available from reference studies. The reference data used must be documented appropriately together with their source. The quota-controlled selection or recruitment of participants on the Internet should be widely scattered. In addition to the quotas set by the client, an appropriate regional and – where relevant to the subject of the study – Internet-usage-related distribution of the sample should be observed.

Participants of online surveys who are representative for **specific groups of Internet users** can, in addition, be selected by means of lists of e-mail addresses, provided these are complete and up-to-date.

For online surveys which are to be representative for the **users of a specific Web site,** respondents should preferably be selected online, either based on an algorithm in which every nth visitor to the Web site is asked to participate, or based on a random number generator which at random intervals asks visitors to the Web site to take part. In doing so, the different probabilities of selecting frequent and occasional visitors to the Web site, must be taken into account where appropriate.

3. "Active" and "Passive" Selection

The participants of online surveys must be „actively" selected or recruited by the research agency carrying out the study. This can be done on the basis of typical criteria for statistical random selection, or by means of quotas for certain socio-demographic features, attitudes, or behavioural patterns pertinent to the objectives of the study. "Active" selection always means that the research agency decides for itself whom to approach and ask to participate in the survey.

A general notice about a particular online survey or a general invitation (e.g. by means of a banner) to take part in it, does not satisfy the methodological requirements that must be met by the selection and recruitment procedures for scientific surveys. In such cases, it is not the research agency itself that decides whom specifically to approach and invite to participate in the survey on the basis of a clearly defined selection procedure.

Such „passive" selection or recruitment procedures result in a biased sample as a result of their self-selectivity; e.g. because "professional" respondents are usually over-represented by them. The participants are neither representative for the Internet users as a whole, nor for specific groups of Internet users or the visitors of a particular Web site. Even the agreement between various characteristics of the sample and externally set target figures does not mean that the "passively" selected or recruited participants are representative with respect to the multitude of uncontrolled socio-demographic and psychographic characteristics.

4. Checking the Selection

If the online selection or online recruitment of the respondents is not carried out on the basis of a statistical random procedure, a comprehensible check must be carried out which unambiguously identifies the selected persons and the selection criteria, or such a check must at least be possible at any time. The information supplied in the context of a "recruitment questionnaire" about persons who are otherwise defined exclusively via their e-mail addresses is not adequate for this purpose. The necessary checks require at least an individual postal address or telephone number, in order to reduce the likelihood of multiple participation in a survey or the use of incorrect information for the purpose of obtaining incentives. The checks that are carried out must be documented.

5. Sample Coverage

In random selection procedures, the response rate, i.e. the proportion of the persons invited to participate who actually take part in the survey, represents a relevant quality criterion, which should be documented in the final report about the study. Where quota selection procedures are used, the coverage rate cannot, of course, by definition be a quality criterion.

Response rates can only be quoted in cases where participants in an online survey are "actively" selected or recruited by the research agency carrying out the study. Certain specific differences are apparent in the response rates which are as a rule achievable, particularly depending on the target group to be investigated. Below average response rates can be an indication of quality defects in the execution of the study. They should therefore be individually documented and explained. Where appropriate reference data are available, the actual sample should also be checked to see if it reflects the features and structure of the overall population that are relevant to the study.

In online surveys using pre-recruited access panels, too, the response rate can be a quality criterion, i.e. the percentage of the persons defined in the panel as belonging to the overall population who actually take part in the particular survey. Low response rates within an access panel may indicate quality problems.

6. Weighting

In online surveys, too, systematic errors in the net sample from the intended overall population can occur when respondents are selected using random procedures. In order to adjust the structure of the sample to relevant socio-demographic features and, where appropriate, features related to Internet usage, to match the structure of the overall population, it may be necessary or sensible to weight the results. In order to calculate the weights, up-to-date information about the overall population of Internet users is required. The source of this information and its adequacy for the target group of the survey as well as the distribution of the weights must be documented in the final report on the study.

D. Execution of the Study

1. Questionnaire

The general methodological requirements that apply to the design of questionnaires and the sequence and wording of questions in conventional interviewing techniques, also apply to online surveys. As with written interviews, it is in fact particularly important to observe general methodological demands, since the respondents must find their way around the questionnaire, understand the questions and answer them adequately without any help from an interviewer.

Online questionnaires must be usable even for less experienced and knowledgeable Internet users. For this reason, the specific technical possibilities offered by online questionnaires, such as visually highlighted buttons and predefined input fields, should be exploited. Beyond this, clear filters and comprehensible instructions are also relevant features for the quality of online questionnaires. Furthermore it should be possible to correct answers already given, provided there are no methodological reasons for ruling this out. The use of help facilities, input checks, and other technical features should be checked for each particular study and weighed up in terms of their methodological implications.

2. Equality of Technical Conditions

Participation in an online survey should be possible independently of the respondents' specific access to the interactive medium and of their equipment, so as not to produce any corresponding bias in the sample. In terms of the design and programming of the questionnaire and the online presentation of the interview site, this implies that the questionnaire can be processed without problems using different operating systems, makes of browser and versions of browser. The questionnaire should therefore be checked using the most common types of browser before field work for the survey begins.

On the research agency's side, it must be ensured that the Internet connection of the server on which the online survey is running offers sufficient bandwidth and capacity at all times during the survey to prevent persons selected or specifically approached for the survey from being turned away.

3. Metadata

Obtaining data without the knowledge of the respondents, as for example the script-controlled readout of broser information and setting up "cookies", is only permissible if it is crucial for achieving the research objectives of the online survey. In such cases, respondents must be adequately informed before the start of the interview and give their consent. In methodologically justified exceptional cases, such consent can also be obtained during the interview. Respondents who do not agree to this during the interview must not suffer any disadvantage as a result (e.g. forfeiting their claim to an incentive). These regulations do not apply to data specific to the survey which accrue unnoticed, such as the time of day when the questionnaire was answered and the time taken to complete it.

4. Incentives

Since as a rule the participants of online surveys have to pay dial-in charges simply for taking part, incentives are often offered as an inducement. However, these must not be the key reason for taking part in the survey. Incentives should only compensate participants for the time and money expended in taking part. "Professional incentive hunters" must not be offered attractive conditions for participating. In view of quality considerations, it is crucial that the incentive for taking part is as neutral as possible in terms of the study and the target group, so that the type and scope of the incentives do not lead to a bias in the sample.

In the case of single surveys, the awarding of an incentive must only hinge on the formally correct completion of the questionnaire and not on any additional conditions. In the context of online (access) panels it is permissible to offer incentives to the panellists in the form of a points system, whereby respondents receive points for each survey they participate in, the points accumulate, and an incentive is awarded once a number of points has been reached. The panellists must be duly informed about this arrangement.

5. Communication

Respondents must be informed about the scientific purpose of the online survey provided the research objectives permit this in terms of methodological considerations. Furthermore it must be pointed out to them that their participation is entirely voluntary and that their responses will be used exclusively in an anonymised form and only for research purposes. In addition, the research agency conducting the survey should supply its address (postal address, e-mail, telephone number) so that respondents are able to obtain information about it.

Beyond this, respondents should have the possibility of approaching the research agency if content-related or technical problems arise while completing the questionnaire. Ideally a "hotline" will be set up for this purpose, allowing questions about the research agency, the scientific purpose of the current online survey (where methodologically possible) and about market and social research in general to be answered.

6. Voluntariness

As with all studies for market and social research purposes, participation in online surveys is entirely voluntary. This includes the respondents' right to terminate the interview at any time. Hence respondents must be able to leave the questionnaires sites directly at any time. New windows that "pop-up" in this event, and other techniques to prevent them from leaving, are not permissible. At the most, it is permissible for methodological reasons to enquire why they are terminating the interview.

7. Duration of Fieldwork

The duration of fieldwork for online surveys should be sufficiently long for the specific study to allow all the persons in the target group to have the opportunity to take part in the survey, unless methodological reasons speak against this. When fieldwork is carried out over too brief a period, this will as a rule lead to biased samples.

People who only use the Internet sporadically, will in this case inevitably have a smaller chance of being selected. Fieldwork that does not cover all days of the week to the same level can also lead to a bias in the sample, since it does not adequately reflect the usership structure which varies for different days of the week. The problem of field-work being too brief is particularly relevant in the case of random sampling; however, it can also arise with quota selection procedures.

8. Checks on Fieldwork

In any online survey, suitable measures must be taken to rule out multiple participation as far as possible. The research agency must document the corresponding measures. If the survey interval of an online survey among the visitors of a particular Website has to be kept brief for methodological reasons, the deliberate multiple participa-tion by individual respondents and unintentional repeated invitations of visitors to the Website must be checked by means of "cookies" and/or other measures, and thus avoided.

A specific problem faced by online surveys is that respondents may "click through" the questionnaire, something that is generally apparent from the fact that the interview is completed in less than the theoretical minimum time. For this and other reasons, all interviews from online surveys should be checked in terms of their content (plausi-bility and consistency checks) – as with other types of survey – and where necessary removed from the data record. The research agency must document how these checks were carried out.

9. Breaking off and Resumtion

It is conceivable that a respondent might break off an interview on account of technical problems or for other reasons, but may wish to continue at a later time. If the resumption of the interview is possible from a methodo-logical point of view, the research agency should offer this possibility and the respondent should be able to resume the interview at exactly the place where it was broken off or interrupted. The individual parts of the interview should be connected by means of a pseudonym. Furthermore the research agency must ensure that inter-views that are broken off and resumed are not counted twice.

10. Data Security

If personal data are collected in the context of an online survey, suitable technical measures must be taken to en-sure that these data cannot be viewed or indirectly deduced by third parties. Respondents must be informed about the potential risks associated with collecting personal data and about the measures taken to avoid these risks.

Address data (name, postal address, telephone number, e-mail address) and interview data must be separated from one another immediately on being received by the research agency. After this, the only link between them is a com-mon code number. The address data must be destroyed at the earliest possible time. In case of single surveys, this is the case once quality checks have been completed; in the case of follow-up or repeated surveys, the address data – and with online (access) panels various selection criteria as well – are stored until the end of the overall study. If a respondent demands that his or her address data and any selection criteria stored be erased, these must be deleted.

When the data collected are temporarily stored on a server that simultaneously allows access to online media, it must be ensured that third parties cannot access these data. If the temporary storage of the data collected takes place on a server that is operated by a provider, the research agency must place the provider under the obligation to take the necessary technical precautions to ensure that third parties cannot access the data on the server or during data transfer. Temporary storage of the collected data on the server must be terminated at the earliest possible time.

E. Presentation, Interpretation and Documentation

When presenting, interpreting, and documenting the results of online surveys, the same requirements apply, on principle, for the final report on the study as with other means of data collection.

1. Presentation

The research results must be presented in full. In concrete terms this means that all the units studied and all the questions studied must be included in the presentation of the results. A deliberately incomplete presentation, for instance in order to suppress individual, contradictory findings, would violate the ethical standards of market and social research.

2. Interpretation

The appropriate interpretation of the research results is a key part of empirical research – provided an interpretation is included in the research proposal. In this context, appropriate means that the interpretations are related to the research issue and are supported by empirical results. Interpretations where this is not the case are not a part of empirical research. Particularly with online surveys – but not only here – attention must be explicitly drawn to any limitation in the interpretability of the research results as a result of deficits in the definition of the overall population, in the selection procedure, in the coverage (of random samples), or in the target-actual structure (in quota selection).

3. Documentation

The final report on the study must contain the necessary basic information for assessing the scientific quality of its execution and the possibilities and limitations on the interpretability of the results. With online surveys the minimum details to be provided are:

– name of the client commissioning the study
– name of the research agency conducting the study
– objectives of the study
– target group for the study (overall population)
– method of sampling used
– number of persons interviewed
– period of research
– sample coverage
– method and results of checks on fieldwork
– statistical margin of error in the results (for random sampling)
– weighting (sources, target values and procedures)
– the questionnaire

F. Online (Access) Panels

1. Definition

Online (access) panels consist of a pool of registered persons who have consented to take part in online surveys. As a rule, various socio-demographic and other details of these people willing to take part in interviews are stored as well as their names and addresses. Specific sub-groups are selected from the pool of panellists using a variety of different sampling methods – depending on the aim of the study – and invited to take part in a specific online survey, usually by e-mail. On principle, the same quality criteria apply for online surveys based on access panels, as for other scientific online surveys.

2. Recruitment of Participants

Two fundamentally different types of online (access) panels can be distinguished in terms of the recruitment of their participants: **actively** recruited panels with a **closed** circle of participants, and **passively** recruited panels with an **open** circle of participants.

Actively recruited online panels are based on recruitment methods in which the respondents are enlisted online or offline by the research agency itself using a variety of sampling techniques. For methodological reasons, people who have on their own initiative informed the research agency that they would be willing to take part are not taken into account. **Passively recruited online panels** are based on recruitment methods in which people are invited to take part by means of a variety of online and/or offline techniques referring them to a registration site on the Internet.

Only if the recruitment of the panellists is active – analogously to drawing a sample -, can the panellists be regarded as being representative of the overall population or a defined subgroup of Internet users. The auto-selection of the respondents makes passively recruited panels unsuitable for representative surveys.

However, even actively recruited panels cannot be regarded as being representative per se, but can only claim to be so if the fundamental methodological requirements are observed concerning the basis of selection and the procedure for selecting the participants.

3. Size of the Panel

Since not all the individuals who have registered to take part in an online survey are in fact willing to take part in one, not all registered individuals or e-mail addresses can be regarded as being panellists, but only those persons who have been validated and who regularly take part in online surveys (plus new or recently registered individuals, the regularity of whose participation can naturally not yet be determined). The number of panellists on its own is not an adequate quality criterion for an online (access) panel.

4. Panel Structure

The quality of an online (access) panel, and hence also the quality of the samples drawn from it, is determined by the recruitment and selection procedure for panellists and the use and maintenance of the panel, rather than the size of the pool of addresses. Panellists must be individually identifiable at least as regards the socio-demographic and other characteristics which are relevant as selection criteria, as well as specific characteristics of Internet usage. A collection of e-mail addresses which have not been qualified in this respect, does not itself constitute an online (access) panel. Since it lacks the basis for making a selection. The measures taken to maintain the panel and the panel mortality over time must be documented.

5. Panel Maintenance

In order to maintain an online (access) panel it is necessary that the addresses and the socio-demographic and other stored details of the panellists are regularly updated. If this cannot be done in the context of the online surveys themselves for whose execution the panel was created, special registration surveys among the panellists should conducted to this end.

6. Panel Usage

When making use of online (access) panels it is necessary to ensure that respondents are not interviewed too often (such as several times a month, or several times a quarter on the same subject). This could otherwise result in a "professionalisation" of panellists and hence a change in their attitudes and behaviour, which would distort the research results. Of course, cases where a higher frequency of interviewing is part of the research design represent an exception to the methodologically necessary restriction in the frequency of interviews.

7. Panelmanagement

The management of an online (access) panel should – like that of any panel – be in the hands of competent, specialised staff. The individual responsibilities and duties should be unambiguously laid down by the organisational structures within the research agency, and should be made absolutely clear.

G. Closing Remarks

The „Standards for Quality Assurance for Online Surveys" in hand correspondent to the current (May 2001) scientific, methodological and technical state of the art in online surveys and to the statutory and legal framework under which they are carried out. As scientific understanding progresses and the research methods and technologies are developed, or when possible changes in the outline conditions occur, the "Standards for Quality Assurance for Online Surveys" will also change. For this reason, regular reviews and adaptations of and/or extensions to them will be necessary and will be carried out.