INTERNATIONAL STANDARD

ISO 20252

First edition 2006-04-01

Market, opinion and social research — Vocabulary and service requirements

Études sociale, d'opinion et de marché — Termes, définitions et exigences de service



Reference number ISO 20252:2006(E)

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Published in Switzerland

Page

Contents

Forewo	ord	iv
Introdu	ıction	. v
1	Scope	. 1
2	Terms and definitions	. 1
3 3.1 3.2 3.3 3.4 3.5 3.6	Quality management system requirements Organization and responsibilities Confidentiality of research Documentation requirements Competence and training Subcontracting/outsourcing Reviewing the effectiveness of the quality management system	. 7 . 7 . 8 . 8
4 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9	Managing the executive elements of research Responding to research requests Project schedule Assistance by and cooperation with clients Questionnaires and discussion guides Managing sampling and data processing Monitoring the execution of research Research documents, materials and products Reporting of research results Research records	. 9 11 12 13 14 15 16
5 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8	Data collection General Management, recruitment and training of fieldworkers Conducting data collection by fieldwork Fieldworker validation (excluding qualitative research) Qualitative data collection Self-completion data collection Data collection from secondary sources Data collection records	17 18 20 21 23 25 26
6 6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 6.10	Data management and processing	27 27 28 28 29 30 30
7 7.1 7.2 7.3 Bibliog	Report on research projects	32 32 33

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 20252 was prepared by Technical Committee ISO/TC 225, Market, opinion and social research.

Introduction

The principal objective of international standardization is to facilitate business development and growth particularly between different national and regional markets. The intention is to apply the principles of international quality standards to market, opinion and social research and to harmonize other national standards already available.

Market, opinion and social research is now a global industry. An increasing proportion of the expenditure of users of the industry is allocated to multi-national projects whose objective is consistent regional and global measurement. An international quality standard directly facilitates the achievement of this important economic and social objective by ensuring that the process elements of such research are undertaken to an appropriate standard and in a verifiable and consistent manner. This will enable data, arising from research studies carried out according to this standard, being used to guide the provision of goods and services to citizens and institutions in a consistent and transparent fashion.

Subsidiary objectives in developing this International Standard have included the need to define the level of requirement for service provision and common work procedures to be applied in processes, including across different countries. To meet the expressed wishes of service providers and clients, this International Standard also clarifies the difference between market, opinion and social research and other activities such as direct marketing. This International Standard also embodies some essential principles of international standardization including openness and transparency, consensus of interested parties and technical coherence.

This first document produced by TC 225 contains extensive terms and definitions.

Market, opinion and social research — Vocabulary and service requirements

1 Scope

This International Standard establishes the terms and definitions as well as the service requirements for organizations and professionals conducting market, opinion and social research.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

access panel

sample database of potential respondents who declare that they will cooperate for future data collection if selected

NOTE Continuously reporting panels, e.g. TV-rating-panels, consumer-panels, are not covered (see 2.37).

2.2

accuracy

degree of closeness between the estimate and the true parameter value

2.3

ad hoc

(research) specifically designed to address a particular objective or issue

2.4

appraisal

process of monitoring the competency of an individual or group of individuals in carrying out their work

2.5

audit

systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled

2.5.1

audit criteria

set of policies, procedures or requirements used as a reference

2.6

auditor

person with the competence to conduct an audit

2.7

hiae

systematic deviation between the estimate and the true parameter value

2.8

client

individual, organization, department or division, internal or external, which requests or commissions a research project

2.9

code

numeric or alpha character or combination of characters associated with each response category

code frame

list of categories with associated codes (see 2.9) for classifying responses

2.11

computer-assisted interviewing

CAI

interviews with responses keyed directly into a computer and where the administration of the interview is managed by a specifically designed programme

Examples include computer-assisted personal interviewing (CAPI), computer-assisted telephone interviewing (CATI), computer-assisted self-interviewing (CASI) and computer-assisted interviewing via Internet (CAWI).

2.12

confidentiality

requirement that data collected or information and materials are protected from unauthorized access

2.13

continuous research

research that involves regular and on-going data collection

2.14

data editing

data cleaning

set of methods verifying the collected data and, if necessary, correcting them

2.15

data entry

process step where data collected are converted into computer-readable form

2.16

data processing

DP

management and converting of data from its raw state through to a required output

2.17

data record

set of data derived from a reporting or observed unit

2.18

database

centrally held collection of data that is accessible to users

2.19

depth interview

unstructured interview conducted by a specially skilled interviewer

The purpose of depth interviews is to understand the underlying motivations, beliefs, attitudes and feelings on a particular subject. Discussion can vary from interview to interview as long as all topics in a pre-defined discussion guide are covered.

2.20

desk research

secondary research

systematic examination and application of available secondary data in the context of a research objective

2.21

derived data item

data item used in analysis and/or tables derived from one or more source data items and/or categories

2.22

discussion guide

list of points or subjects which have to be covered in a depth interview or focus group

2.23

fieldworker

person involved in the collection of data for market, opinion and social research, excluding management

NOTE Fieldworkers include (but are not limited to) face-to-face and phone interviewers, recruiters for qualitative or other research, "mystery shoppers" and others carrying out data collection by observation and "auditors" collecting data from retail outlets.

2.24

filter

question or instruction in a questionnaire that restricts answers to a subgroup of respondents

2.25

focus group

group discussion

informal discussion with a small number of selected participants conducted by a skilled moderator

2.26

frequency count

hole count

marginals

summary count of individual data items on the computer file

2.27

imputation

procedure where missing data are replaced by estimated or modelled data

2.28

incentive

gift, payment or other concessions offered to potential respondents to increase response rates

2.29

indexing

numerical scale used to compare variables with one another or with some reference number

2.30

logic data entry

data entry processes which are programmed to check question skips and response ranges

2.31

moderator

individual responsible for facilitating the interaction of the members of the focus group

2.32

mystery shopping

study using fieldworkers in the role of customers/users in order to evaluate a business/service performance

2.33

netting

method of treating codes assigned to multiple-response questions, which may include open-ended codes, where the net refers to the total number of people responding with the same group of codes, even when each person has given more than one response within the same group of codes

2.34

non response

failure to obtain measurements on some sample/census members for all or some questions or variables

2.35

observational research

research study where data are collected by directly or indirectly observing behaviour or events taking place

2.36

open-ended question

open-ended response

type of question where respondents are asked to answer in their own words

2.37

panel

group of selected research participants who have agreed to provide information at specified intervals over an extended period of time

NOTE Panel does not cover access panel (see 2.1).

2.38

pre-testing questionnaires

small scale tests to check the performance of the questionnaire before embarking on full scale fieldwork

2.39

primary records

raw data including unedited completed questionnaires, recordings of qualitative research and other similar items

NOTE This can be paper based or electronic based.

2.40

probability sampling

random sampling

procedure such that each member of the sampling frame has a specific positive chance of being included in the sample

NOTE For probability sampling, statistical margins of error apply.

2.41

qualitative research

analysis of motivations, patterns of thought, opinion, attitude, assessment or behaviour via unstructured research techniques such as focus groups and depth interviews

A statement about the frequency and distribution of such patterns within a given population is not possible on the basis of qualitative study.

2.42

quality management

procedures and measures focused on fulfilling quality control and quality assurance requirements

2.43

quantitative research

numerical representation of observations for the purpose of describing and explaining the phenomena that those observations reflect

NOTE Often this research aims at making inference to populations. In most cases a structured questionnaire is used with predetermined questions with most of the responses being precoded.

2.44

questionnaire

structured tool for collecting data consisting of a series of questions

NOTE Questionnaires can be self-completion or administered by an interviewer.

2.45

quota sampling

method of constructing a sample so that it conforms to a predefined structure with respect to certain variables

2.46

recruiter

person who identifies and invites respondents to participate in a research project

2.47

representativeness

extent to which a sample represents the defined target population

2.48

research proposal

written submission to a client which includes a research design

2.49

research service provider

service providers which conduct research projects or parts of research projects in market, opinion and social research, according to scientific principles and methods

NOTE In particular, these can be private research institutions, academic and university research institutions, incompany research departments, local authorities, official statistics agencies or individual researchers acting in the same capacity.

2.50

respondent

person from whom data are collected

NOTE Person includes natural or legal persons.

2.51

retail audit

collection of data from retail outlets using documentary and/or observational methods

2.52

sample

subset of the target population from which data are to be collected

2.53

sampling frame

list of population elements or other appropriate sources from which sample members are selected

2.54

sample variation

range of an estimate based on the sample size and sampling methods

2.55

screening

initial questions in a questionnaire used to establish eligibility of respondent

2.56

secondary data

data that have already been collected and are available from another source

2.57

simple data entry

data entry containing no built-in logic checks

2.58

subcontracting

outsourcing

passing responsibility for executing an element of the research project to a third party organization or individual

NOTE Self-employed fieldworkers are not defined as subcontractors for the purposes of this standard.

2.59

survey

systematic data collection from a sample of a target population, to which inference can be made

2.60

target population

population of interest to which inferences are to be made

2.61

validation of data collection

procedures to check that data have been collected according to specification

2.62

validity

extent to which the results of a research process represent what was intended

2.63

verification of data

procedures to check that data are processed according to specification

2.64

wave

each successive repetition in a continuous project in which neither the objective nor the general project design change

2.65

calculation process in which different units or subgroups are recalculated by assigning numerical values as necessary to correct and/or improve the representativeness of the sample estimates

NOTE Weighting can be used to adjust for unequal selection probabilities such as multistage sampling, coverage bias, non-response bias, etc.

3 Quality management system requirements

3.1 Organization and responsibilities

The research service provider shall apply a quality management system, which covers all the requirements of this International Standard.

Senior management of the research service provider shall:

- be committed to quality of client service (this may include a statement of quality policy and quality objectives);
- be responsible for the development, implementation and continual improvement of the quality management system;
- ensure that the quality management system is properly documented;
- ensure the provision of adequate resources and information for the system;
- appoint a quality manager with enough authority to be responsible for the whole system and who has the responsibility of organizing internal audits in order to make sure the present International Standard is applied.

The structure of the research service provider, including the responsibilities of the people involved in the realization and the control of the service, shall be documented.

Procedures, instructions and methods required for completing the different tasks in accordance with the requirements of this International Standard shall be documented, implemented, maintained and auditable.

The management of the research service provider shall ensure that everyone involved in the provision of the research service is familiar with the applicable national and international ethical and professional codes, relevant legislation and documented procedures and methods which specifically affect their work.

3.2 Confidentiality of research

All information supplied to the research service provider by the client in order to conduct a research project shall be treated in the strictest confidence. It shall only be used in this context and shall not be made available to third parties without the client's authorization. Confidential information shall be stored securely (see also 4.9.3).

The research results relating to a specific client, obtained by a research service provider as a result of carrying out a particular research project, shall not be used in research projects for other clients without authorization.

3.3 Documentation requirements

Records and documents (which may be paper based and/or electronic) shall be established and maintained to provide evidence of traceability.

Each project shall have a project file that contains or references the location of a documented project specification showing the basic requirements of the project.

In addition to unique project identification, every primary record shall be uniquely identified to allow traceability and to ensure they can be located.

Records shall be kept safe, useable and retained for defined periods (e.g. by computer file back-up).

All documents shall be subject to version control so that the valid version can be clearly identified.

All electronic files shall be checked for viruses by up-to-date virus detection software.

Competence and training 3.4

The research service provider shall have procedures in place to ensure that individuals working on any part of a project and for specific tasks of the quality management system either have relevant competence and experience or receive appropriate training for the tasks they undertake.

The research service provider shall establish and document training activities including the identification of current or potential training needs, taking into account individuals' job responsibilities and the type of work to be undertaken.

Subcontracting/outsourcing 3.5

The research service provider shall remain entirely responsible for all services carried out in connection with the project, including any part of the work which may be subcontracted and/or outsourced and services relating to this International Standard, except where the choice of the subcontractor is beyond the control of the research service provider.

The research service provider shall define procedures to select subcontractors, to establish contractual relations with them and to control the quality of the service provided.

Subcontractors shall be briefed by the research service provider in such a way as will enable them to conduct the subcontracted parts of the research project in adherence with the contract and the present International Standard.

The research service provider shall evaluate the performance of subcontractors and maintain relevant records, including records of any unsatisfactory service received.

3.6 Reviewing the effectiveness of the quality management system

The research service provider shall effectively monitor and manage the agreed research process and its quality management system by:

- analysing the functioning of the research process and the quality management system;
- analysing the causes of problems or disagreements, if any, and implementing corrective and preventive actions:
- recording actions taken to prevent any repetition of such problems;
- establishing that actions taken are effective in resolving problems.

The research service provider shall establish and maintain a system to document, review and resolve clients' complaints. The system shall include:

- the identification and recording of the underlying causes of complaints; a)
- implementation of action to resolve problems and prevent recurrence; b)
- establishing that actions taken are effective in resolving complaints.

There shall be a review mechanism to confirm that such actions taken have been effective in resolving the complaint.

The research service provider shall carry out, at pre-planned intervals, internal audits to establish the correct functioning of the quality management system.

The research service provider shall measure and analyse at regular intervals client satisfaction in order to improve the quality of the service.

4 Managing the executive elements of research

4.1 Responding to research requests

4.1.1 General

The research service provider shall have in place defined methods for checking all necessary resources and have available appropriate internal and external expertise before responding to a research request.

The research service provider shall be responsible for ensuring that the client's requirements are understood at each stage of the research process. This may involve one or more meetings. Any agreements between research service provider and client shall be documented. When responding to requests, research service providers shall explicitly point out if parts of the intended research project have not been adequately specified or any uncertainties adequately resolved.

If this is not already apparent from the request itself, it shall be established whether the client requires a research proposal or a cost quotation.

NOTE A quotation (as opposed to a proposal) gives the cost of conducting a research project according to a predetermined and defined methodology, which is referenced or documented by either the research service provider or the client.

The requirements for quotations are as per 4.1.2. Where a research proposal is required, the client and the research service provider shall agree the objectives to be met and the research service provider should have the opportunity to modify or improve the research approach proposed by the client. Proposals contain an adequate description of all relevant steps of the planned research project as well as a timetable (see 4.2). Costs are included as part of a research proposal (see also 4.1.4).

If specific aspects of data protection or professional codes need to be taken into account with the chosen research design, the research service provider shall give a detailed account of the problem and the proposed solution.

If research proposals deal with multi-client studies in any form, this shall be explicitly stated in the research proposal or cost quotation.

If the research service provider is unable to meet the deadline for the research proposal or cost quotation, the client shall be informed of this at the earliest possible time.

4.1.2 Contents of cost quotations

A cost quotation shall specify at least:

- the total cost (see also 4.1.4) and execution times of the research project;
- the technical specifications and all elements having an influence on the cost (e.g. fieldwork, coding, data entry, analysis, reporting, number of presentations);
- the currency;
- whether taxes are included in the cost, according to the local laws.

4.1.3 Contents of research proposals

Unless otherwise agreed to by the client and the research service provider, the following components shall be addressed as appropriate in the research proposal.

4.1.3.1 Objectives and methodology of the research project

The research proposal shall define clearly which requirements of the client can be met by means of the proposed research project and which can only be met by follow-up research or by a different type of research.

The research objectives and methods shall be described and shall be fit for the purposes for which the research is to be used.

4.1.3.2 Scope of services

The topic areas of the questionnaire or discussion guide to be used, approaches to analysis and the scope of analysis shall be included in the proposal where relevant.

4.1.3.3 Sampling and weighting

The target population and the sampling procedure shall be adequately described in the research proposal. The proposal shall also describe the sampling frame, where applicable, and state the extent to which the sampling frame is representative of the target population. The extent and detail of the description will depend on available data, on the methodological approach and on the client's requirements. Regarding the sample, at least the sample size, the method of drawing the sample, the recruitment or selection of respondents and any planned weighting procedures shall be described.

An estimate of the proportion of the target population in the total population shall be mentioned if it may influence the cost quotation.

When stating the size of the sample, an indication shall be made not only of the total number of cases but also of the extent to which the results obtained for subgroups will be reliable.

Research proposals shall describe the target group to be studied and, where necessary for methodological reasons, also the method of recruitment.

Proposals for qualitative research projects shall make clear how respondents will be recruited (from a prerecruited panel or selected by some other means). The method used to control the length of time that must have elapsed since participants last took part, if ever, in a group discussion or individual depth interview shall be indicated. The number of individuals to be interviewed and/or the number of groups and intended number of participants in each shall be specified.

4.1.3.4 Description of data collection and processing

The research proposal shall describe the relevant aspects of data collection as described in Clause 5. The anticipated length of the questionnaire and/or interviews or group discussions shall be stated in the research proposal.

The research proposal shall describe the relevant aspects of data processing as described in Clause 6, such as coding, editing, data entry, and file preparation.

In qualitative research projects, the type of venue to be used for interviews or group discussion shall be specified and whether or not viewing facilities are to be available.

4.1.3.5 Secondary analyses

When secondary analytical sources are to be used, the nature of the sources and their anticipated use shall be described.

4.1.3.6 Reporting and presentation of results

Proposals and cost quotations shall define all deliverables, including their coverage, scope, format, means of delivery, and numbers of hard copies.

Especially in qualitative research projects, the proposal shall state whether verbatim comments from interviews and/or group discussions will be included in the report. The proposal shall also state whether records of the interviews/group discussions will be available.

4.1.3.7 Subcontracting individual research steps

The research proposal shall describe, if planned, whether individual research steps are to be subcontracted to other external research service providers.

4.1.3.8 Compliance with relevant law and professional codes

The research proposal shall refer to applicable law and generally accepted published codes of ethics in market, opinion and social research.

4.1.3.9 Compliance with this International Standard

The proposal shall indicate that the research service provider complies with this International Standard.

4.1.4 Price

The research proposal or cost quotation shall specify the price of the proposed research approach and the services provided. Key factors which can lead to a change in the price should be clearly identified. The client shall be advised that any changes in the project planning may influence the price. It shall also specify the terms of payment, the currency and if taxes are included, according to the local laws. The time period shall be specified during which the calculated prices are valid.

4.1.5 Research contracts

The agreement between the research service provider and the client shall be documented in writing. It is acceptable to use the final version of the proposal and a written acceptance for this purpose.

NOTE When the research service is of a complex or long-term nature there might be a need for a specific service level agreement where deliverables and responsibilities are provided in detail.

4.2 Project schedule

Unless already included in the proposal, the client shall receive the schedule of the research project, including all relevant timings and responsibilities. If relevant, this project schedule shall include the following:

- client supplied documents, materials and products;
- client opportunity (or requirement) to approve the questionnaire or discussion guide;
- fieldwork;
- client opportunity (or requirement) to approve the analysis specification;
- output delivery for data, presentations and report.

Changes in the timetable made by the client or by the research service provider shall be communicated to and approved by the other contracting party as soon as possible. Any such changes shall be documented.

4.3 Assistance by and cooperation with clients

4.3.1 Client briefing for research service provider

Any briefing shall be documented.

If the research objectives and/or other requirements do not appear to be described fully enough in the client's documents, the research service provider shall request a more detailed briefing from the client.

For many research projects, a briefing of the research service provider by the client is essential in order for the research problem to be approached with an adequate research design. This kind of briefing can be advisable for each step in the research process, from the submission of the research proposal to the presentation of the results.

4.3.2 Changes in the specification of work

The research service provider shall be responsible for agreeing and confirming in writing with the client any changes that will affect the project or client requirements, which may include the cost, timing, and any other agreements stated in the proposal, cost quotation, or contract. The client shall be informed of which subcontractors (if any) are to be used, for any part of the research process, before these subcontractors undertake this work. Any subsequent changes in subcontractors to be used shall also be communicated to the client.

Client review of questionnaires and discussion guides 4.3.3

The client shall be given the opportunity to participate in the design and/or the review of the questionnaire or discussion guide. Client approval of the questionnaire or discussion guide is required, unless review and approval are waived by the client. This approval shall be documented.

4.3.4 Observing and checking data collection

The research service provider shall take adequate steps to ensure that the identity of respondents is protected and that clients agree to respect this principle. Clients shall be informed if their observation could affect the quality of the data collected.

The client may be permitted to observe the collection of data if the respondents taking part in the research project have agreed with this beforehand and their identity will be protected within the requirements of the applicable law and the professional codes. These requirements also apply if the client receives transcripts or recordings of group discussions or individual interviews.

4.3.5 Code frame and data analysis

At the client's request, the research service provider shall make available to the client the code frame and the methods used to analyse the data.

4.3.6 Presentation of results to the client

The client should be consulted on the way the research results are presented.

Questionnaires and discussion guides

4.4.1 Conception and design of questionnaires

Because the content, structure and design of the questionnaire can affect the research findings, the possible effects of the wording and the sequence of individual guestions, as well as the number of response alternatives and their order on the research results, shall be taken into account when developing the questionnaire.

NOTE In addition to this, a clear filter structure and clear instructions are important features of questionnaires. This is particularly important in the case of self-administered questionnaires (e.g. mail, e-mail, online) because the respondents have to complete the questionnaire without the assistance of an interviewer.

4.4.2 Translation of questionnaires and discussion guides or any other project-related documents

The need for translation shall be pointed out in the proposal.

Translation shall be done by a person or persons with language skills comparable to mother-tongue competence in the source and target languages. At least one of the translators shall have prior experience with the wording of this type of document.

Checking and revision shall be done by a person or persons other than the translator, with the appropriate competence in the source and/or target languages to examine the translation for its suitability for purpose.

The client or their representative shall be given the opportunity to review the translation.

The resulting translation shall be recorded together with the chosen checking and revision procedures, and the research service provider shall act accordingly.

4.4.3 Pre-testing questionnaires

A pre-test shall be carried out if the client or the research service provider consider it necessary, as well as for all self-completion questionnaires. If there is a pre-test, the findings and their implications shall be documented.

NOTE Measurement errors associated with the questionnaire and the response process are a very important class of non-sampling error. Errors due to misinterpretation of questions, information retrieval and the delivery of responses on the part of the respondent together with interviewer errors can contribute substantially to the total survey error. Therefore pretesting of questionnaires is important in most design situations.

4.4.4 Project-related briefing and training of interviewers and moderators

The research service provider shall ensure that both the fieldworkers and any associated subcontractors are adequately briefed and issued with appropriate instructions for using questionnaires and discussion guides. Any briefing shall be documented.

If the methodological requirements for interviewers conducting a research project go beyond the scope of the skills taught in the basic training programme, appropriate project-related training shall be carried out.

The moderators of group discussions and explorative interviews shall be briefed in the specific topic areas.

4.5 Managing sampling and data processing

4.5.1 Managing sampling and weighting

4.5.1.1 Requirements

Sample design shall be based on the chosen selection procedure (e.g. stratification, clustering, assignments). The approach used in drawing up the sample shall be documented.

The characteristics of the sample shall be checked by the research service provider on the basis of the sampling criteria specific to the research project. This applies equally to fieldwork conducted by the research service provider and to work conducted by subcontractors.

NOTE For qualitative sampling requirements, see 5.5.

4.5.1.2 Size of sample

The size of the sample shall be chosen in such a way that the sampling variation achieved both in the overall sample and in the subgroups relevant to the analysis is acceptable for the purposes of the research project.

4.5.1.3 Quality criteria for probability samples

The particular sampling approach shall ensure that each person or unit within the target population or sampling frame has a calculable probability of being included in the sample. The source of data used for

selecting sample points and/or individual persons or units shall be documented. Subsequent weighting of the respondent records may be used to counteract biases in structure due to non-responses, under coverage and other causes.

4.5.1.4 Quality criteria for quota samples

For a quota sample, the intended target population shall be known and defined in terms of the relevant criteria. The characteristics relevant to the overall population shall be included in the quota plan. The source and date of the origin of the quota controls shall be provided. The number of interviews required for each characteristic to be controlled shall be specified in a quota plan.

NOTE Population characteristics can include region, age, gender, marital status and those characteristics which indicate membership of a social class, such as profession, education and net household income, race/ethnicity, labour force status.

4.5.1.5 Quality criteria for access panels

When access panels are used for drawing samples for a research project, the research service provider shall document and report to the client:

- the method of recruiting panel members;
- the selection criteria for the sample;
- the weighting and projection methods;
- the data collection method for the sample;
- the appropriateness of the sample for the purpose.

If available, relevant data from sources other than the access panel should be documented in order to detect potential biases.

4.5.1.6 Documentation of data weighting

If a weighting process is used, it shall be appropriately described together with the weighting variables applied. The source and date of weighting target data shall be provided. The weighted and unweighted sample structures shall be documented.

4.5.2 Coding, editing and other data processing

In the case of quantitative research projects, the research service provider shall ensure that the data processing is performed in a way to minimize errors, the coding of the open-ended questions is checked for errors and the analyses and tabulations are correct. Standardized quality controls for this purpose shall be established and documented.

NOTE Full requirements are in Clause 6.

4.6 Monitoring the execution of research

The research service provider shall monitor the most important research processes so that they are conducted according to agreed specifications (see 4.1.3). The most important processes include the sampling procedure, questionnaire or discussion guide development, data collection, data processing, analysis and the production of deliverables.

4.7 Research documents, materials and products

4.7.1 Handling and storage of client-provided materials

The research service provider shall request the client to provide the relevant instructions for handling, storage and keeping materials and products provided by its companies.

A research service provider shall handle carefully, and in accordance with the client's instructions and/or internal procedures, the documents, materials and products made available to it. They shall be stored in accordance with their specific requirements. All documents, materials, products and databases which are no longer required after the research project has been completed shall be returned to the client unless explicitly agreed otherwise.

The research service provider shall take suitable measures in order to protect the documents, materials and products entrusted to its care. Where documents, materials, products and databases are presented to the persons chosen to take part in a research project, or where those persons are to be given the opportunity to use them, the research service provider shall ensure that the research conditions are the same for all persons and that the products are not damaged, soiled or altered in the course of the research project, in a way that might affect the results. If the research service provider transports or dispatches materials or products, it shall ensure that secure forms of packaging and suitable methods of transport are employed.

The research service provider shall ensure that suitable information is given to the consumers for the safe use and handling of the products in the research project, according to applicable law.

4.7.2 Safe keeping

The research service provider shall ensure that any documents, materials, products and databases of confidential or sensitive nature, provided by the client, are treated confidentially both inside and outside the control of the research service provider. At the client's request, the research service provider shall give details of the specific measures taken to safeguard confidentiality. The research service provider shall store documents, materials, products and databases belonging to the client, in a manner which does not permit unauthorized persons access to them. Where possible, access should be confined to those persons immediately involved in the research project.

4.8 Reporting of research results

4.8.1 Documentation

The research results shall be delivered to the client in the form and with the content already described in the research proposal, or agreed at a later time. The research project report shall contain or reference the necessary basic information which allows the reader to understand the way it was conducted (see 7.2 and 7.3), the way it may be replicated, its implications and its limitations.

For continuous research, the research service provider shall document and agree with the client the content and frequency of reporting.

4.8.2 Interpretation

The interpretation of the results of empirical research shall pertain to the research problem and shall be supported by the empirical findings of the research project and, where applicable, by other data.

Interpretations and recommendations based on empirical research shall be distinguished from personal views and opinions.

4.8.3 Reporting and presentation

The results relevant to the aim of the research shall be available in full and reported in agreement with the client.

When relative values are quoted, it shall be possible to deduce the absolute figures directly from these. For this reason, the base shall always be included when percentages are quoted.

If the data have been weighted, the results of the research project shall be reported in a weighted form together with both weighted and unweighted bases. If the client is receiving a data record, the weighting factors for individual respondents shall be included in the data record. In addition, the research service provider shall, on request, make available to the client a description of the weighting process.

Oral presentation of the research results shall involve persons who are familiar with the subject matter of the research project and who are also familiar with the way in which the research project was carried out. This is to ensure that the client's questions regarding both content and method can be answered satisfactorily.

The accuracy of all reported data and material shall be checked before delivery to the client.

4.8.4 Publication

Research service providers may publish research results for scientific or other purposes if they have conducted the research project at their own expense, or if such publication has been contractually agreed with the client commissioning the research project, or if the latter has consented to such publication. This also applies to the presentation of research results in the context of conferences. When publishing research results, their presentation shall be clearly distinguished from their interpretation. Research service providers shall also draw clients' attention to their responsibilities regarding the publication of research results.

NOTE The responsibility for the accuracy and appropriateness of the publication of research results normally lies with the copyright owner.

4.9 Research records

4.9.1 Identification

Research records shall be adequately labelled for identification and retrieval and traceable to a specific research project. Research records shall include the following:

- the research proposal and/or cost quotation;
- a copy of the final version of the questionnaire, discussion guide and stimulus material;
- the primary records (raw data including unedited completed questionnaires, recordings of qualitative research, etc);
- the data processing specifications, coding sheets, edit records and other significant material relating to data processing:
- copies of delivery material passed to the client;
- full methodological details of the research (see 7.2 and 7.3);
- quality records related to monitoring the way the research is conducted.

4.9.2 Retention

To allow questions to be answered about how the research was conducted or about the results, including after the research project has been completed, the retention period of the following records shall be as follows, unless otherwise agreed with the client:

- primary records: 12 months;
- a copy of all other final versions of documents related to the research project: 24 months.

The research service provider shall inform the client about the retention periods. The research service provider and the client can agree on a longer or shorter retention period. This agreement shall be documented.

If the research is later repeated, or further research is later carried out within the same project, the storage period shall be said to begin upon conclusion of the entire research project.

4.9.3 Storage

Every effort shall be made to store records in a manner adequate to ensure that they do not deteriorate, that they can be retrieved and that their confidential nature is not compromised. Procedures shall be in place to ensure that project records kept in electronic form are backed up by at least a second copy of electronic files kept off site.

4.9.4 Safe keeping

Unless otherwise agreed, all research records shall only be available to the client and independent third parties for quality audit purposes. The research service provider shall also ensure that the research results and the report are protected by appropriate measures against unauthorized access, while being stored in the research service provider's archives. This includes the protection of results and reports stored on electronic data carriers against unauthorized alteration.

4.9.5 Supplying electronically stored data to the client

4.9.5.1 Checking for completeness

Before being handed over to the client, electronically stored data shall be checked for completeness. More specifically, it shall be verified that the data records passed on are complete in terms of the number of cases (e.g. the number of respondents, completed questionnaires) and the variables measured, and whether they contain any additional, contractually agreed information.

4.9.5.2 Data format

Electronically stored data shall be passed on to the client in the format described in the research proposal or agreed upon at a later time.

4.9.5.3 Description and documentation

Every electronic data carrier handed over to the client shall be identified by indicating the data records it contains and, where necessary, specific technical details regarding installation. In addition, where necessary, a suitable description of the data records shall be supplied together with it; either in the form of a file on the electronic data carrier itself or in a suitable printed form.

4.9.5.4 Electronic transmission

At the client's request the research service provider shall use suitable encryption and/or other appropriate procedures for disclosure avoidance for the electronic transfer of data.

5 Data collection

5.1 General

Data collection management includes: head office and area managers (including those managing recruiting), local supervisors, phone unit supervisors, fieldworker team leaders and support staff involved in data collection. Individuals may work on a full- or part-time basis.

The research service provider shall implement procedures to safeguard respondent confidentiality and to provide respondent reassurances (see also 5.3.2).

Respondent identifiers on data records (e.g. questionnaires) shall be used for purposes of research administration and quality control only and shall be retained only for as long as these purposes necessitate.

5.2 Management, recruitment and training of fieldworkers

5.2.1 General

When fieldwork is subcontracted, the requirements of 3.5 shall be followed to ensure that the outsourced company follows the practices and standards in this section.

NOTE This subclause applies to both the research service providers who conduct their own management, recruitment and training of fieldworkers and those who subcontract or outsource fieldwork to independent data collection companies.

5.2.2 Data collection management staff

Data collection management staff shall be appropriately trained for the tasks they undertake, including allocation of work, progress control, training and appraisal of fieldworkers and validation of work. Data collection management staff shall also be regularly appraised and continuing training given as required. The training given to, and the competencies of, data collection management staff shall be documented by the research service provider.

5.2.3 Fieldworker recruitment

The research service provider shall evaluate the competence of potential fieldworkers on the basis of their previous work experience and qualification, and/or a recruitment interview, and/or references from previous employment. The recruit's level of relevant experience, if any, shall be established for the work to be undertaken, including for specific projects. Competency evaluation may need to include language skills, including the ability to follow instructions in the languages to be used for data collection instructions, and competence equivalent to mother tongue in the languages to be used for data collection.

All relevant information relating to fieldworkers, obtained in the recruitment process or subsequently (e.g. training records, results of validation), shall be documented and retained whilst the individual carries out work for the research service provider and for one year thereafter.

NOTE Whilst the above retention period of one year meets the requirements of this standard, other requirements, including legal requirements, can necessitate a longer retention period of fieldworkers' personnel records.

Where fieldworkers are recruited through an employment agency, recruitment records may be less detailed but should show key skills and previous, relevant experience.

5.2.4 Basic training for new fieldworkers

Unless otherwise specified, all fieldworkers shall be given basic training to the level specified below. This training shall be provided by the research service provider, except where confirmation is received from another research service provider meeting the requirements of this standard that relevant basic training (for the tasks to be undertaken) has already been provided. The training methods shall be chosen by the research service provider, in accordance with the requirements below.

The content and scope of basic training shall be appropriate to the nature of the work to be carried out (e.g. face-to-face interviewing, phone interviewing, qualitative respondent recruiting, retail auditing). If the fieldworker is used subsequently for different types of work (i.e. different to the type covered in the basic training already received), including the use of computer-assisted interviewing (CAI), appropriate additional basic training shall be given.

Basic training shall include as a minimum:

- the general principles of market, opinion and social research;
- ethical requirements (see bibliography for applicable international codes), including respondent safeguards and data protection issues;
- interviewing skills and other relevant techniques;
- where relevant, the use of computers (e.g. for CAI);
- interview role playing and trial interviews (or other forms of data collection methods).

Where possible, interviewers should be accompanied by data collection management staff on their first day's work, and their first assignment after basic training should be monitored (see 5.4.2 for phone interviewing), with feedback provided to the interviewer. If such monitoring or accompaniment is not undertaken, all work from the first assignment shall be validated in accordance with 5.4 and 5.5.

The minimum duration for basic training on face-to-face and phone interviewing and qualitative recruitment interviewing (excluding additional organizational training, see 5.2.5) shall be 6 h. Approximately half of the training shall be interactive to allow dialogue between trainer and trainee.

Exceptionally, where the data collection tasks are considered to be very simple (e.g. traffic counts), the minimum duration of basic training may be shorter than specified above and may be combined with project briefing. Reasons for such shorter training shall be documented and if the fieldworker is subsequently to be used in another project, full basic training shall be given.

For observation research such as mystery shopping, no minimum duration is specified for basic training and training may be combined with briefing for the first assignment.

The durations specified for basic training should be regarded as minimum levels and depending on the nature of work to be allocated, fuller training may be required.

The basic training given to fieldworkers shall be documented including content, duration and the identity of the trainer. The trainee and trainer shall authenticate the training records by signature or in an equivalent manner.

NOTE It is generally considered to be good practice to make available on request from another research service provider confirmation of the basic training given to individuals.

5.2.5 Fieldworker organizational training

In addition to basic training in accordance with 5.2.4, the research service provider shall train all fieldworkers in the specific requirements of the research service provider including how data collection is organized and managed. The methods of delivering this type of training and its content can be a matter for the research service provider but fieldworker personnel records shall show the organizational training given and how it is delivered.

NOTE Organizational training may be linked to basic training or to briefing for the first assignment.

Key requirements and general instructions to fieldworkers shall also be included in a document available to all fieldworkers and used by the research service provider.

5.2.6 Continuing training and appraisal of fieldworkers

Fieldworkers who are regularly used by the research service provider (i.e. for five projects/waves or more in a calendar year) shall be appraised at least once a year. Less frequently used fieldworkers shall be appraised at appropriate intervals. Any such appraisal shall allow dialogue between the fieldworker and the research service provider's data collection management (face-to-face or by phone) and shall include feedback from validation of work.

NOTE Effective appraisal can be continuous with fieldworkers given feedback by data collection management after work is validated (e.g. by monitoring of phone interviewers).

The appraisal should be based for example on the result of questionnaire editing, fieldwork validation or accompanied or monitored interviews. Appraisal may identify the need for further training of individual fieldworkers, or the need for such training may be identified in other ways.

Further training, as described above, shall be distinguished from the need for additional training when a fieldworker is allocated to new types of work or new responsibilities, e.g. specialist interviewing, supervisory work (see 5.2.4).

Appraisal reports and details of any additional training provided shall be documented and retained with fieldworkers' personnel records. Both parties shall authenticate that the appraisal/training has been completed by signature or in an equivalent manner.

5.3 Conducting data collection by fieldwork

5.3.1 Fieldworker identity document (ID)

Fieldworkers, except those only working by phone, shall be issued by the research service provider with an ID, preferably including a photograph. The ID shall include the name of the fieldworker, the date of issue and the expiry date, and the name and contact details of the research service provider to whom it belongs. Records shall be kept showing to whom IDs have been issued and dates of issue.

5.3.2 Respondent reassurance

All approaches to respondents shall include a brief description of the principles of respondent confidentiality, the general research purposes for which the data may be used and the name of the research service provider, subcontracting agency and/or the client(s), as appropriate. The respondents should be informed that cooperation is voluntary.

Documented respondent reassurance shall be offered to face-to-face respondents. This shall include contact details of the research service provider. Phone respondents shall be offered contact details of the research service provider on request.

5.3.3 Data collection from children or vulnerable respondents

Special care shall be exercized where respondents are children (legally defined as minors in the area where data collection is carried out) or where respondents are considered to be otherwise vulnerable. In these cases appropriate steps shall be taken to ensure that parents/guardians or the equivalent, as well as the respondents themselves, understand what is entailed and give their consent based on adequate information. Records shall be kept (e.g. as part of the questionnaire) to show that this requirement has been met. Special training of interviewers and others involved in these kinds of data collection may be necessary.

5.3.4 Project briefing

Fieldworkers shall be given a briefing and/or instructions for each project (or the specifics for each wave of a project), even if they start to take part after it has already started. The briefing and/or instructions shall be the responsibility of a member of staff with a full understanding of requirements for the project. Briefing and/or instructions may be delivered face-to-face, by phone, in writing or otherwise but records shall be kept to show the coverage of the briefing and instructions and that all fieldworkers allocated to the project have been briefed/instructed.

The briefing and/or instructions for a quantitative project shall include, as appropriate, the following information:

 the	fie	ldwork	dates:

the sampling procedures;

- quotas to be covered;
- methodology;
- other special requirements of the project;
- instructions/conditions for administration of the questionnaire.

The briefing and/or instructions for a qualitative project shall include, as appropriate, the following information:

- a) the fieldwork dates and times;
- b) key recruitment criteria;
- c) required quotas;
- d) the number of respondents to be recruited for each group discussion or in-depth interviews;
- e) acceptable and unacceptable methods of recruitment:
- f) specific exclusions and restrictions applicable to respondents who have already attended group discussions or in-depth interviews;
- g) whether observation equipment is to be used.

5.3.5 Date and duration of fieldwork

The date and duration of each interview and the identity of the fieldworker responsible for collecting the data or observation, etc. shall be recorded.

NOTE These elements are relevant to the validation of the interview (see 5.4 and 5.5.2).

5.3.6 Respondent incentives

Where incentives are given to respondents, the nature of these incentives shall be documented as part of project records.

Incentives should be used as a token of appreciation and to stimulate participation. As part of quality control, the incentive for taking part should be as neutral as possible in terms of the research project and the target group, to ensure that the type and scope of the incentives do not lead to response bias.

5.4 Fieldworker validation (excluding qualitative research)

5.4.1 General

The purpose of validation is to establish that data collection by fieldworkers has been carried out to project instructions including following questionnaires and general requirements (e.g. as covered in fieldworker training).

NOTE For validation of qualitative research see 5.5.

Validation shall be carried out as soon as practical after the fieldwork (and not more than six weeks afterwards) and wherever possible before the resulting data are processed and/or reported to clients.

Validation shall be organized by data collection management staff and in all cases validation shall be carried out by a second person (i.e. other than the fieldworker whose work is being validated).

All data collection of each project (or wave) shall be validated using methods in accordance with 5.4.2 below. Validation shall take account of:

- the need for the work of all recently recruited fieldworkers to be validated on their first project;
- the need for validation of regularly used fieldworkers so that their work is frequently validated but not necessarily for each project (results of validation may influence the frequency of subsequently validating an individual's work).

Documented records for fieldworkers used by the research service provider shall identify the validation, including dates and projects, of each individual's work.

Where validation identifies discrepancies or problems, corrective action shall be taken at two levels:

- at the project level (e.g. replacement of interviews, further validation, qualifying of data produced);
- at the fieldworker level (e.g. retraining, future work allocation). In the case of serious discrepancies (e.g. fabricated interviews), recent or concurrent work by the individual shall be subjected to rechecking and validation.

5.4.2 Validation methods

Depending on the type of data collection concerned, validation shall be undertaken as specified below, by means of checking the data records produced (e.g. guestionnaires, CAI data files) and/or respondent recontact (also termed backchecking) and/or monitoring.

Checking of data records may be used in conjunction with other methods but in some types of data collection this may be the only practical form of validation (e.g. observational research such as "mystery shopping" and retail audits). Checking of data records may include, as appropriate, completeness of the data records, keeping to samples/quotas, consistency of responses and comparison of responses against normal data or between fieldworkers. Checks may be made manually or by computer. This may be linked to the checking of associated records, e.g. receipts of purchases from mystery shopping.

Respondent re-contact shall include confirmation that the interview or equivalent took place and that instructions were followed, the length of the interview and responses to key questions including demographics and other qualifying questions related to quotas, etc. Re-contact may be by any medium involving direct communication with the respondent (e.g. face-to-face, by phone, by post or by e-mail). Re-contact may be an appropriate method of validation for all types of interviewing, especially face-to-face interviewing, including that carried out at central locations (where face-to-face re-contact may immediately follow the interview).

Monitoring shall involve listening to interviews at the time they are being carried out, using appropriate equipment, or listening to recordings of the interviews. Both interviewer and respondent shall be audible. Interviewers shall be aware that any interview may be monitored but not know whether a specific interview is being monitored. Where interviewing is multi-lingual, staff fluent in the relevant languages shall carry out monitoring. Monitoring is particularly suitable for phone interviews carried out from suitably equipped central locations (phone units).

If face-to-face interviews are recorded on tape, they can be monitored. One can also perform live monitoring via accompanying supervisors. CATI and CAPI monitoring can also be performed via keystroke files that show when interviewers have problems with questions.

5.4.3 Validation levels

Validation shall be carried out to at least the levels below (depending on the type of validation). Validation levels shall be calculated on the basis of achieved interviews and achieved validations.

Where checking of data records is the only method of validation that can be used (e.g. observational research, retail audits) the required level shall be 100%. No specific level is specified where checking of data records is used in conjunction with other methods.

For all projects where data collection is by interview, validation shall be by either re-contact or monitoring to the levels shown below, whether or not data records are also checked.

The minimum re-contact validation level shall be 10% of the interviews/cases.

The minimum monitoring validation level shall be 5% of the interviews/cases with at least 75% of the whole interview monitored/listened to.

Every fieldworker working on a project should be validated or monitored.

In exceptional cases it can be organizationally impossible to carry out re-contact or monitoring to the required level, or at all, or it may be considered contrary to respondents' interest. In such cases project records shall explain why this is the case and what other steps (e.g. checking data records) have been taken to validate data collection.

5.4.4 Validation records

Reports shall be prepared on the validation carried out for each project/wave of project. The reports shall include:

- the name of the person who carried out the validation;
- a description of the methods of validation used including what was covered in respondent re-contact, if applicable;
- the identity of the fieldworker whose work has been validated;
- a description of any discrepancies found;
- a record of corrective action/preventive action taken or planned at both the project level and fieldworker level;
- a confirmation that the required validation level has been attained (e.g. number of interviews in total and number validated).

Validation records shall be retrievable by both project/wave and individual fieldworker.

5.5 Qualitative data collection

5.5.1 Respondent recruitment

Details of respondents and how they were recruited shall be recorded on recruitment questionnaires or equivalent records and these shall be made available to moderators and retained as project records subject to respondent confidentiality (see 5.1).

NOTE Recruitment of respondents in qualitative studies is commonly a separate stage from qualitative moderation of groups or depth interviews. Recruitment is commonly carried out by fieldworkers rather than by the research staff involved at the moderation stage.

5.5.2 Respondent recruitment validation

All recruited respondents shall be validated using one of the methods below. The need for action to be taken where discrepancies are found shall also apply (see 5.4.1).

Validation may be by respondent re-contact or monitoring (see 5.4.2) if recruitment is by phone from a central phone unit. Cooperative initiatives by research service providers can also be employed to prevent excess respondent participation.

At the interview/group discussion, the respondent's identity should be confirmed.

Respondent re-contact may be carried out between recruitment and the date of group or depth interviews, or at the group/depth interviews themselves.

Re-contact may be by any medium involving direct communication with the respondent (e.g. face-to-face, by phone, by post or by e-mail). Where validation is carried out at the group/depth interview, a self-completion or administered validation questionnaire may be used but shall be administered by someone other than the original recruiter.

Validation records shall be prepared in accordance with 5.4.4.

NOTE The primary aim of validation of respondent recruitment is to confirm the demographic and other recruitment criteria of respondents. Another aim of validation is to avoid respondent participation in excess of what is specified in the research proposal (see 4.1.3.3).

5.5.3 Qualitative moderation

Groups and depth moderation shall be carried out by appropriately skilled and trained staff.

NOTE Fieldworker training requirements as per 5.2 are not applicable to qualitative moderators.

Moderators shall be briefed and fully prepared including in the use of any techniques not explicit in the discussion quide.

Each moderator shall familiarize him/herself, as appropriate, with the objectives of the research project, the issues to be explored, the stimulus material and the particular techniques to be used prior to the commencement of fieldwork.

Moderators shall prepare a written report of any problems or issues found in groups/interviews, including with respect to:

- the compatibility of respondents with the desired profile;
- the suitability of the room(s) used and their audiovisual facilities;
- the performance of the host or individual who received the group.

Where moderators consider that the recruited respondents do not match requirements they shall report the discrepancies to the appropriate management of the research service provider.

Recording of qualitative research and respondent confidentiality

Full records shall be kept of group or depth interview responses, normally by recording (e.g. audio or video). Respondents shall be made aware of and give their consent to the recording itself, the intended use of the recordings (including use by any third parties) and any transfer of data (e.g. to clients). It may be considered appropriate to have respondents confirm their consent in writing.

The use and transfer of recordings should be for research purposes only.

Where third parties (including the client of the research service provider) are to observe the group or depth interviews, respondents shall be made aware of this (see 4.3.4), especially where the observation is from a hidden viewing area.

Recordings shall be labelled to identify the project and respondents (including by cross-reference to other records) and the date of the group or depth interview.

5.6 Self-completion data collection

5.6.1 General

Subclauses 5.6.2 to 5.6.5 cover data collection where the respondent, at the time of providing data/responses, has no face-to-face or telephone contact with a fieldworker or other representative of the research service provider. Self-completion includes (but is not limited to) for example:

- postal research, such as mail surveys or other situations, in which hard copy questionnaires are left for self-completion,
- diary surveys,
- electronic data interchange (EDI), where data are obtained directly from records stored on a company's own computer,
- disk by mail, where a diskette containing a self-completed questionnaire is sent to the respondent via postal mail and the respondent installs and fills out the questionnaire before sending the diskette back to the research provider,
- touch-tone data entry, where the respondent calls a computer and responds to questions asked by the computer via the telephone keypad,
- voice recognition entry, where the respondent answers into the telephone and the computer verifies the answers by repeating them,
- completion and return of questionnaires via the Internet, and
- internet on-line focus groups or other interactive internet methods.

Internet questionnaires can be e-mailed to individual respondents by the research service provider or can be downloaded by respondents from the research service provider's (or other) web site. Respondent samples can be ad hoc to a specific project or drawn from access panels.

NOTE 1 Self-completion can also be achieved via computer-assistance, which is called computer-assisted self interviewing (CASI). CASI is often used as part of a CAPI interview. When the interviewer reaches a section on sensitive questions the computer is literally turned over to the respondent, who continues the interview by means of written instructions or instructions obtained via a headset.

NOTE 2 Since further rapid development in this area is expected, the requirements regarding self-completion data collection are checked and updated as necessary.

5.6.2 Sampling for self-completion/Internet research

At the proposal/research design stage or in reporting to clients, details shall be given of the sampling methodology used, how potential sampling problems have been addressed, including the representativeness and self-selection of participating respondents, and the impact of these on the quality of resulting data.

Where access panels are used, details shall be provided of the recruitment of the panel and the selection of respondents from it, including any implications for the resulting data.

5.6.3 Respondent validation

At the proposal/research design stage or in reporting to clients, details shall be provided on how respondents have been/are to be validated, including to deal with the issue of lack of control of who provided the responses in self-completion and internet data collection. As in the case of sampling, the impact of these issues on the quality of resulting data shall be discussed.

Pre-testing self-completion questionnaires

Questionnaires shall be tested before use and the results of such testing and any action taken shall be documented. If the same questionnaire has previously been tested and documented substantially and used in a comparable situation, such testing can be of a more limited scale. Instructions for self-completion shall be included as part of the questionnaire or associated material.

5.6.5 Respondent safeguards

For all self-completion data collection, but especially those provided via the Internet, procedures shall be implemented to ensure the security and confidentiality of respondents and of the data they provide. Such procedures shall take account of the services provided by any suppliers used by the research service provider in carrying out this type of data collection.

Assurances of security and confidentiality shall be given to respondents, including by means of a statement forming an integral part of the questionnaire or associated material.

Respondents shall be made aware, before participation, of relevant information that may affect their decision whether to participate, including the general subject matter, the general purpose of the data collection and the approximate amount of time required to provide responses (unless this is self-evident from the questionnaire). Where the intended respondents are children, appropriate safeguards shall be observed in accordance with 5.3.3.

5.7 Data collection from secondary sources

The sources of secondary data, such as published material, databases, etc., as well as their nature and reliability, shall be recorded. Where the data are used in client reporting, these sources shall be acknowledged.

5.8 Data collection records

Complete records (including computer files) shall be made of the data collection stage, including what was planned and what was actually achieved.

It is not necessary to keep these records separately from other records of the project, i.e. they do not need to be kept specifically by the data collection department.

Where relevant to the project, records shall include:

- copies of all data collection materials used in the project, including questionnaires and stimulus material, fieldworker briefing material, interview quota sheets, etc.;
- the sampling methods used, including sampling frames and other sources, selection, quotas, etc.;
- the identity of all fieldworkers, the volume of work (e.g. number of interviews) and the type of work (e.g. face-to-face interviews, phone interviews, recruitment) allocated to and achieved by them;
- full records of data collection validation and of any corrective action taken (see also 5.4.1);
- response rates and penetration levels or equivalent measure;
- a summary of variations between the planned data collection process and what was actually completed, including sample sizes in total and by significant subgroups (these variations and their implications may need to be reported to the client);
- in the case of interviews or group discussions that are recorded, clear labelling with the date and project identification (the duration shall be clear from the recording);
- the identity of data collection management staff involved in the project;

- any other project records specifically required in this subclause;
- a statement as to whether all or some data collection processes have been subcontracted and the identity
 of any subcontractors concerned.

6 Data management and processing

6.1 General

The research service provider shall have in place documented procedures to demonstrate that data entry, coding, editing, weighting, file preparation and tabulation have been conducted according to the requirements of this Clause. Evidence shall be available that the standards have been applied.

6.2 Electronic data entry

The research service provider shall ensure that data entry or capture specifications for CATI and/or CAPI, as well as for online projects, are correct as specified and accurate.

The research service provider shall establish and maintain procedures to test both the design and the implementation of the electronic forms of questionnaires. The type of tests and the persons involved shall be documented.

Confirmation of the client's acceptance of the electronic script (where this is agreed with the client) shall be documented.

In the event that interviewing is undertaken at several locations, it is strongly recommended that there is only one point at which the questionnaire can be amended, tested and distributed. Changes shall be clearly documented and version control shall be implemented.

NOTE See 4.4.1 for questionnaire design.

6.3 Hard copy data entry

6.3.1 Specifications

Where logic data entry is used, the in-built checks shall be documented and tested prior to use. The nature of the tests used and the results obtained shall be documented. Irresolvable attempted entries (which are not accepted because of the in-built logic checks) shall be referred to the project manager/executive responsible for the project for a decision and resolution, with a record kept of any changes made to the data.

Unless otherwise specified where simple data entry is used, data shall be keyed in as recorded on the questionnaire. A record of any instructions shall be kept on file.

6.3.2 Data entry verification for paper documents

A systematic method of verifying a minimum percentage of data entry work shall be carried out on a project or stage/wave. In the case of logic data entry, the minimum total percentage verification per project shall be 5% of entries and for simple data entry, it shall be 10% of entries. Procedures shall ensure that there is a systematic method of verification of each operator's work and the verification shall be undertaken by a second person.

If an individual operator's work contains frequent errors, that individual's work (on the project) shall be 100% verified/re-worked. If necessary, appropriate retraining shall be given to that operator until error rates are acceptable. The effectiveness of the retraining shall be reviewed and documented.

The research service provider shall define the meaning of frequent errors and document that definition.

Accuracy of databases not requiring data entry

The research service provider shall have in place defined processes to ensure the accuracy of data sets created by means other than hard copy data entry.

This may include, but not be limited to, data sets created via:

- scanning;
- electronic data collection (e.g. interactive voice recognition surveys, online surveys, web based surveys);
- CAI databases;
- databases created by importing or merging data from one source or program into another.

The process of automatic data entry (e.g. scanning) shall be verified at each project/stage. The research service provider shall establish and maintain procedures to test both the design and the implementation of the automatic data entry process. The type of tests used and the staff involved shall be documented.

If scanning procedures are used, rejection and substitution rates shall be estimated. The procedures for handling rejected entries shall be documented.

There should also be a procedure in place to handle unacceptable substitution rates.

6.5 Coding

6.5.1 General

If automated coding software is used, the error rate should be estimated. If the error rate is unacceptable, revisions of the dictionary should be conducted.

6.5.2 Developing code frames

The research service provider shall ensure that coders working on the project are provided with instructions that shall include, as a minimum:

- an overview of the project;
- identification of questions or variables to be coded;
- the minimum proportion or number of a sample (and its make-up) used to produce code frames;
- where necessary or appropriate, specific subgroups required to develop code frames (e.g. by region, user or non user):
- guidelines for the inclusion of codes in the code frame;
- any use to be made of code frames from a previous project or stage;
- any other requirements or special instructions specific to the project.

For some variables, the research service provider can use existing established classification standards, such as those for industry, occupation and education.

6.5.3 Code frame approval

The project manager/executive responsible for the project shall approve the code frame prior to the commencement of coding and shall document it. This approval may involve the netting, abbreviating, rewording, recoding or deletion of codes.

Where "don't know" and "no answer" responses have been used, these shall be distinguishable from each other.

6.5.4 Coding training

The coder(s) shall be trained on how to use a code frame, e.g. through awareness of decisions or rules regarding what should be included or excluded from a given code.

NOTE Because the coding of open-ended responses is often subjective in nature, proper training is essential.

6.5.5 Updating

After code frame approval, when further codes become appropriate in the process of coding, all copies of the code frame shall be updated and any questionnaires already coded shall be amended accordingly.

6.5.6 Other categories

The research service provider shall have clear rules or guidelines for the treatment of responses in "other" or catch-all categories. If the "other" or catch-all category exceeds 10% of responses to be coded, the responses should be reviewed with a view to reducing the size of the group.

6.5.7 Verification

The research service provider shall have defined procedures for the verification of the coding for each project. Procedures shall ensure that there is a systematic method of verifying a minimum of 5% of questionnaires coded per project and the verification shall be undertaken by a second person.

NOTE There are two basic approaches to verification: dependent and independent. Dependent verification means that the second person has access to the original coding. Independent verification means that the second person does not have access to the original coding. In independent verification, the original coding and the verification coding are compared and if they differ, the correct code is decided by an adjudication process. Independent verification detects more errors than dependent verification.

If a coder's work contains frequent errors, that coder's work (on the project) shall be 100% verified/re-worked. If necessary, appropriate retraining shall be given to that coder until error rates are acceptable. The effectiveness of the retraining shall be reviewed and documented.

The research service provider shall define the meaning of frequent errors and document that definition.

6.6 Data editing

6.6.1 Editing data

An accurate record of any changes made to the original data set shall be kept. No data shall be assumed/imputed without the knowledge and approval of the project manager. Comparison to the original data source shall be the first step in the process. Any imputation processes shall be documented and available to the client on request. All edit specifications shall be documented.

Where forced editing is used, the logic of the forcing shall be documented and test runs carried out, with the results documented to show that the forcing has the desired effect.

6.6.2 Pre-data entry

Where paper documents are hand edited prior to data entry, it shall be possible to distinguish the original answers of the respondent or interviewer from the codes or answers allocated by the person(s) carrying out the editing.

When this type of editing is used, the logic and rules being applied shall be documented and any staff working on this element of the project shall be briefed as to the types of checks and corrections they may carry out.

6.7 Data file management

Care shall be taken in file management to ensure that:

- files or records within a file are not duplicated;
- the latest version is used:
- original and cleaned data sets are clearly identifiable;
- frequency counts or other records are made before and after data editing to allow comparisons to be made.

NOTE See quality of weighting procedures in 4.5.1.

Data analysis 6.8

Specifications for data analysis

The analyst/researcher shall undertake data analysis according to the specifications provided by the project manager/executive responsible for the project.

6.8.2 Analysis records

The research service provider shall keep accurate and descriptive records of the analysis process, to ensure that any analysis undertaken can be replicated at a later date.

6.8.3 Data analysis verification

The research service provider shall have in place procedures to ensure the tabulations and other outputs have been checked.

As a minimum, these checks shall verify:

- completeness, i.e. that all tables are present as specified;
- that abbreviations for headings or open-ended responses accurately reflect the full content;
- that the base for each table is correct against other tables or frequency counts;
- that the standard breaks/banner points are checked against source questions;
- that all derived data items are checked against their source;
- that the figures for subgroups and nets are correct;
- that there are no blank tables (i.e. with no data);

- weighting (e.g. by test tables);
- frequency counts prior to running tables, in order both to ensure the accuracy of data and to determine base sizes for subgroups;
- spelling and legibility;
- that any statistical analysis used is appropriate and correct.

For any subsequent outputs, appropriate checks shall be applied.

6.8.4 Data tables

When data are reported to the client, such as in a stand-alone hard or soft copy of data tables, the following shall be taken into account, as appropriate:

- reference to the actual source question to which the data pertains;
- inclusion of a description of any weighting method applied to the data;
- clear identification of any subgroups used;
- availability of the bases for each question, so that the number of respondents who have actually answered the question is identifiable;
- the number or proportion of respondents who replied "don't know" or gave "no answer";
- availability of both weighted and unweighted bases;
- clear and complete definition and explanation of all variables used in the analysis of the data, including any significance testing, indexing, scoring, scaling and calculations of means, median, modes and standard deviations;
- statistical tests;
- information on cell suppression and other measures to assure confidentiality;
- warnings on results which are unreliable due to very small sample sizes.

6.9 Electronic data delivery

If data are delivered to the client in electronic format directly, the following shall be checked prior to data release:

- compatibility of the file format with the software specification agreed with the client;
- completeness (i.e. the correct number of files and records are in each file);
- where applicable, inclusion of a structural description;
- where applicable, labelling of the contents of the file and inclusion of instructions on limitations of use;
- encryption of files upon request;
- presence of viruses in the file.

6.10 Back up, retention and security of data

All data shall be held securely to prevent unwarranted access, damage or accidental loss.

The research service provider shall ensure that all data are stored and retained in accordance with professional codes (see Bibliography), the applicable law and legislative regulations, and any negotiated agreement with the client.

Data pertaining to data processing and analysis may include, but is not limited to:

	raw data files;
_	other electronic files;

 hard copy questionnaires and show mater 	ials
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code frames:

project files including project management information;

emails and other correspondence

The research service provider shall establish and maintain procedures to ensure that DP (data processing) computer files are clearly identified.

Where data has been edited, cleaned, recoded or changed in any other way from the format, content and layout of its original format, the original data, final data and programme files that change the data (as a minimum) shall be kept so that the final data set can be easily reconstructed.

Extra analyses may be requested after the main processing and such analysis shall conform to the DP (data processing) requirements of this standard.

For any proposed release of tables or data, procedures shall be in place to minimize the risk of disclosure of respondent identifiable information.

Report on research projects

General 7.1

In reporting to clients, it shall be stated that the project was carried out in compliance with this International Standard.

Quantitative research

In quantitative research the following minimum details shall be documented in the project report. These allow the reader to understand the way the research project was conducted and the implications of its results:

uic	reader to dilucistand the	way the research project	was conducted and the	implications of its results.	
	the name of the client;				

the name of the research service provider;

the objectives of the research project;

the target group for the research project;

_	the achieved sample size against projected sample size and reasons, if relevant, for not obtaining to projected sample;	:he
	the date of fieldwork;	
	the sampling method, including the procedure for selecting respondents;	
	the data collection method;	
	the response rate (in the case of probability samples) and the definition and method of calculating it;	
	the type of incentives, if applicable;	
	the number of interviewers, if applicable;	
	the interviewer validation methods , if applicable;	
	the questionnaires, any visual exhibits or show cards, and other relevant data collection documents;	
	the documents, materials or products used as part of the research project, if applicable;	1
	the weighting procedures, if applicable;	
	the estimating and imputation procedures, if applicable;	
	the reliability of the findings, including (when probability samples are used) estimates of sample variance and estimates of non-sampling errors or indicators thereof;	ng
	the results that are based on subgroups and the number of cases used in subgroup analysis.	
7.3	Qualitative research	
	ne case of qualitative research, the following specific details shall be documented in the report about tearch project:	:he
	the name of the client;	
	the name of the research service provider;	
	the objectives of the research project;	
	the target group for the research project;	
	the number of persons interviewed or number of groups and participants within the groups;	
	the date of fieldwork;	
_	the fieldwork method (e.g. interviews, groups);	
	the recruitment method;	
	the type of incentives, if applicable;	
	the number of interviewers/moderators, if applicable;	
	the interviewer/moderator validation methods, if applicable;	

	the documents,	materials	or products,	if applicable;
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- the interview and/or discussion guide;
- a statement noting that the results of qualitative research cannot be projected onto the overall population, due to sample selection, interviewing methods and sample size.

Bibliography

- [1] ICC/ESOMAR International code of marketing and social research practice, 1995
- [2] WAPOR Code of professional ethics and practices, 2003
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- [4] ISO 9000:2000, Quality management systems Fundamentals and vocabulary

ICS 01.040.03; 03.020

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