

Public Works and

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# Canada



## **Research Techniques**

Public Opinion Research in the Government of Canada

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## **1** Introduction

Public opinion research is a specialized field of investigation used by the Government of Canada to understand the views, needs and expectations of Canadians in relation to government programs and services. The introduction of emerging technologies adds further choice in terms of available techniques to consider for conducting public opinion research. Awareness of the range of available techniques and an understanding of their relative advantages and limitations is important when considering the best fit for a given project.

It is in this context that the Public Opinion Research Directorate (PORD) is pleased to present the *Research Techniques – Public Opinion Research in the Government of Canada* guide. As for the previous edition, this guide is designed for all departments and agencies interested in conducting public opinion research (POR). This guide presents an overview of various research approaches used within this domain. It defines POR, describes the main techniques used to collect information, and identifies the steps involved in the process of conducting POR. It is meant to help Government of Canada employees conducting POR to select the most effective data collection method to meet their research objectives and receive the best value for money.

The guide was developed as a practical training tool to help readers learn about POR techniques. It provides a snap-shot of the techniques that are available as there is no one-size-fits-all approach to conducting POR. In some cases, qualitative research, not quantitative research, will be the most appropriate for your research project, or in some cases a mixed-mode approach will be the best fit. The selection of the approach will depend on your research objectives, the information to be gathered, and your target audience, among other things.

When in doubt as to which approach to select, or to obtain guidance through the entire research process, please feel free to contact us by telephone at 613-995-9837, or by e-mail at DGSIOpinionPublique.ISBPublicOpinion@tpsgc-pwgsc.gc.ca.

## 1.1 What Is Public Opinion Research?

The Government of Canada gathers information on a wide range of topics to facilitate decision making. Public opinion research is one of the methods used to understand the points of view and expectations of Canadians. The use of public opinion research allows the Government to consult with and engage the general public, as well as other specialized audiences, in the fields of communications, governmental policies, program development, and service evaluation.

It is often mistakenly believed that the sole aim of public opinion research conducted by the Government of Canada is to collect data from the general population. The definition of public opinion research, taken from the Treasury Board <u>Communications Policy of the Government of Canada</u>, has a much broader focus. It is defined as:

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The planned gathering, by or for a government institution, of opinions, attitudes, perceptions, judgments, feelings, ideas, reactions, or views that are intended to be used for any government purpose, whether that information is collected from persons (including employees of government institutions), businesses, institutions or other entities, through quantitative or qualitative methods, irrespective of size or cost.

It is the nature of the data being sought and the manner in which it is gathered, more than the actual target group, that determine if a research project is considered to be public opinion research. Any collection of primary data on opinions, feelings, ideas, views or reactions is considered to be public opinion research.

The definition can include, but is not restricted to:

- > Policy research and market research;
- > Communications research, including advertising research;
- > Quality of service and customer satisfaction studies;
- > Online surveying and Web site testing;
- > Omnibus surveys (placement of one or more questions).

For example, public opinion research is often used in the field of communications to test advertising messages, concepts, tools and Web sites, but it is also used in developing governmental policies and programs, and in evaluating services. It is used as a cost-effective means of engaging Canadians in the decision-making process of government. Given the implications for resources, both human and in dollar terms, public opinion research is frequently relied upon as one among several decision-making tools to ensure governmental decision makers have a reliable assessment of the public environment prior to launching particular initiatives. It is also a valuable tool in evaluating the success or effectiveness of governmental efforts.

## 1.2 Do I Need Qualitative or Quantitative Research?

Public opinion research uses a number of qualitative and quantitative techniques to obtain information from target populations. These include focus group discussions, in-depth interviews, telephone and door-to-door surveys, self-administered questionnaires using mail or the Internet, exit interviews and mall intercepts, as well as omnibus surveys. Choosing the most appropriate method for collecting data depends on a number of factors, including:

- > Purpose and objectives;
- Cost considerations;
- > Time constraints;
- > Level of accuracy required;
- > Type (and depth) of information require;
- > Sensitivity of the information;
- > Location of research population(s).

## 2 Getting Started

Do I need qualitative or quantitative research? This is often the first question a researcher or project manager needs to ask when tasked with implementing a research project. Before answering that question, you must establish the research purpose, determine the research objectives, identify existing research, and set the parameters of the research you intend to conduct.

## 2.1 Establishing the Research Purpose

As a first step, you, your branch or your client need to establish the purpose of the research. This is crucial since it will guide the remaining steps in the research process. To help you define the purpose, you need to answer the following questions:

- > Why is the research information needed?
- > How are the findings going to be used?
- > What decisions are likely to be made based on the findings?
- > Who will use the research information?

## 2.2 Determining the Research Objectives

Next, you need to formulate research objectives – the specific information requirements of the project. In contrast to the research purpose, which deals with **why** information is required, the research objectives focus on **what** is required. You need to specify, in as much detail as possible, the information you are looking for and the question areas that need to be covered (e.g., habits, attitudes, perceptions, demographics, etc.).

There are other steps that you need to think about before implementing a research project. These steps include searching for existing research that could meet your information needs or that could complement any primary research that you undertake, and deciding on the research parameters, such as target population(s), scope, budget and timing.

## 2.3 Conducting Secondary Research

Once you have identified your information requirements, you should take the time to do Internet searches, media scanning of research articles, consult PORD's Research Information Management System (RIMS) and review existing sources, such as internal documents and reports of relevant custom studies available on Library and Archives Canada Web site. Your departmental public opinion research coordinator or your PORD advisor can also provide you with other relevant sources of data (e.g., data from other levels of government, other countries, etc.). Conducting secondary research is an important step in the research process because it helps you to better understand your current information needs.

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## 2.4 Deciding on Research Parameters

Early in the planning of your study, you need to know the following:

- > Who is your target population, or whose opinions do you need to obtain?
- > What information **sources** are available to help you contact these audiences (i.e., lists, panels, etc.)?
- > What is the **geographic scope** of the study? Does it need to be national and cover the full Canadian population in all regions of the country, or would a study of more limited scope be sufficient?
- > Is there a set **budget** for this study? Keep in mind that designing a perfect study is usually more expensive than the available budget.
- > When do you need to have results? That is, being clear about the **timing** of the study.

The importance of these early steps cannot be stressed enough, particularly the identification of the research purpose and objectives. These key elements of a research study should be established **before** approaching your departmental POR coordinator or your <u>PORD advisor</u>. A clear definition of the purpose and objectives is your responsibility as the project manager and is key to the success of your study. It is also critical for you to obtain the involvement and agreement of the user or decision maker in determining the purpose and objectives.

## **3 Data Collection Techniques**

Your next decision will be to determine which approach is most appropriate for your research project: qualitative research, quantitative research or a combination of both, referred to as a mixed-mode approach.

Qualitative research is a widely-used technique. Its purpose is to gain insight into people's behaviours and perceptions, and explore their opinions on a particular topic in more depth than is possible in a survey. It is used for generating ideas and hypotheses where it is not clear how an issue is perceived by the target population or where options for addressing an issue are undefined or not well understood.

The most frequently used qualitative techniques are focus group discussions and individual in-depth interviews. Qualitative research relies on semi-structured or even unstructured interviews where the moderator or interviewer works with a discussion guide or interview guide developed with the client. Unlike surveys, qualitative research does **not** use a set or fixed questionnaire, so the researcher has latitude to adapt the discussion guide or interview guide according to participants' individual experiences and responses. The researcher can eliminate question areas that are yielding little useful information and add those that are more promising. That is why the research tools (i.e., discussion/interview guides) are considered to be semi-structured in nature.

**Qualitative methodologies do** *not* **yield numeric data, and the findings cannot be extrapolated to the broader population**, given that the research sample is not representative or necessarily random. For this reason, qualitative data cannot be conclusive and should never be reported as percentages or numbers. Nevertheless, the value or usefulness of qualitative research should not be underestimated. A skilled moderator or interviewer can solicit valuable information and insights by probing how participants relate to an issue or process information provided to them.

Quantitative research, by contrast, uses a more systematic approach to collecting and analyzing information obtained from a sample of the target population to provide results, typically reported as percentages. In cases where all members of the population need to be interviewed, the survey is called a census survey. However, given the time and resources involved in interviewing all members of a given population, most quantitative studies include only a proportion of the population. This is called a sample survey, and respondents are selected according to the principles of either probability or non-probability sampling to determine whether or not their responses can be projected to the entire population. Quantitative research that is based on probability samples yields results with a known level of sampling error and is used when conclusions need to be drawn about the target population. The results of quantitative research based on non-probability sampling are not projectable to the research population but descriptive statistics, such as means, medians and standard deviations, can be used to describe the findings.

#### **Examples: Quantitative Vs. Qualitative Research Techniques**

An example from advertising research may serve to illustrate the essential differences between quantitative and qualitative research techniques.

A **quantitative approach** to evaluating Canadians' assessment of a Government of Canada TV advertisement would ask the following closed-ended question. Assuming that the question is asked in a telephone survey, the interviewer would read the question followed by the response categories. The respondent would be asked to choose only one.

"Overall, did you like this ad? (READ LIST. ACCEPT ONE RESPONSE).

- > A great deal
- > Somewhat
- > Not very much
- > Not at all"

Using a **qualitative approach**, the focus group moderator might first play the TV advertisement for the group, and then ask a similar open-ended question.

"Overall, did you like this ad?"

Participants would not be provided with a set list of response options from which to choose their answer, but rather could answer the question in their own words, describing their reaction to the advertisement. As well, the flexibility of qualitative research allows the moderator or interviewer to follow up on participants' initial reactions with probing questions (probes), such as:

- > "What did you like about this ad?"
- > "How is it 'catchy'?"
- > "Fun how?"
- > "When you say 'It's a nice ad,' what specifically comes to mind to make you say it's nice?"
- > "What did you dislike about the ad?"
- > "What would it take to make this ad more interesting for you?"
- > "What impression of the Government did this ad leave you with?" ...and so on.

The wording and the number of probing questions to obtain in-depth reactions are constrained only by the skill of the moderator, the time available for that part of the discussion, and what the client needs to know. A skilled moderator or interviewer will use different questions and probes to get at the underlying feelings, opinions and attitudes that add to or enhance the richness of the qualitative data.

To summarize, the key differences between qualitative and quantitative research are as follows:

## Table 1: Contrasting the Two Approaches to Research

Qualitative		Quantitative		
1	Directional only, cannot be projected to the broader target population	•	Conclusive, can be projected to the broader target population when probability sampling is	
•	Purpose is to investigate and explore		used	
t,	Consists of open-ended questions with no predetermined response options	•	Purpose is to measure and evaluate a phenomenon	
÷	Relatively unstructured or semi-structured discussion	•	Consists mostly of closed-ended questions with predetermined response options	
÷	Small number of people, large amount of in- depth information	•	Structured questionnaire	
		•	Large number of people, limited number of	
•	Illustrative, not representative		questions	
	Interpretative – good for answering 'how?' and 'why?' questions	•	Numerical data can be easily aggregated	
		•	Statistical – good for answering 'what?' and 'how many?' questions	

The next few sections offer a closer look at various qualitative and quantitative approaches. We also look more closely at what you need to take into account in deciding which method is best suited to your project needs.

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## **4** Qualitative Research

Qualitative research can be used on its own (e.g., a department/agency wants to gauge reaction to three different approaches that could be used for an advertising campaign to determine which one works best). Or, it can be used as a complement to quantitative research (e.g., see example in following paragraph).

Qualitative research can lay the groundwork for further research. If you don't know what the possible options might be in response to a particular set of conditions, or what the answers might be to a particular question, then you probably should consider first using qualitative research. For example, can you say with certainty what Canadians would be willing to trade off to improve the environment? If you can, then you would consider asking a series of questions about potential trade-offs on a survey (quantitative research). If not, then you probably need to have an open discussion (qualitative research) that will elicit possible options from the public. These options could then be included in a survey to determine the level of support or opposition to each.

Qualitative research is also excellent for testing the specific wording and placement of survey questions. For example, Statistics Canada conducts qualitative research to test potential new census questions to better understand how wording is interpreted and what answers are provided, depending on how questions are asked and where they are placed in the questionnaire. With this information, they can fine-tune questions before they are asked of households across the country.

Qualitative research can also be used as a follow-up to quantitative research to gain insight into an unexpected outcome or to further explore particular survey findings.

Qualitative research often generates new ideas or ways of looking at an issue because the process, by definition, is open-ended – participants' responses are not restricted to yes, no or multiple-choice answers.

Qualitative research can be used for various reasons, including (but not limited to) the following:

- > Generate or evaluate new product, program or service concepts;
- > Learn about clients' experiences with a service, product or program;
- > Explore ideas about improving a program or service;
- > Obtain preliminary reactions to a new policy, program, service or product;
- > Explore people's knowledge or perception about a public policy issue;
- > Learn the language or vocabulary used by participants for a particular subject;
- > Explore how to position a product or service;
- > Pretest creative concepts for an advertising campaign;
- > Test clarity, comprehension, content and format of publications or Web sites;
- > Generate hypotheses for further testing.

Qualitative research uses two main techniques: 1) focus group discussions – whether in person, by telephone or online – and 2) individual in-depth interviews, also called "one-on-ones". A focus group is generally held with eight to ten participants, but could be done with a smaller or larger number of people (given the right circumstances). Other options for group interviews include dyads (two people) or triads (three people), mini-groups of four to six people and maxi-groups of 15 people or more. The size of the group will generally depend on the technique used, the sensitivity and complexity of the subject matter, the research objectives, the target audience, and the amount of time needed for participants to think and respond to the question(s) being asked. There are no hard and fast rules for choosing groups or individual interviews. The choice may depend on a number of factors, such as subject matter, number of segments in the target audience, age of participants, budget, timing, and geographic location, among other factors.

Online qualitative techniques use the Internet to bring together a moderator and participants in an online discussion. There are various applications: online chat focus groups, online bulletin board focus groups, remote Webcam focus groups, and online communities (panel/social networks). There are many names used for these online qualitative techniques, including cyber groups, egroups and virtual groups. These techniques have several elements in common with in-person focus groups: a moderator who facilitates the session, a discussion guide to anchor the discussion, and recruitment of participants. However, these online techniques are distinct from in-person focus groups and result in different group dynamics. They cannot necessarily be used in place of in-person focus groups.

**Note**: Please visit PORD on the <u>Internet</u> and PORD's <u>intranet Web site</u> in order to learn more about the standards for conducting Government of Canada POR. Among other resources, <u>best practices in public</u> <u>opinion research</u> can be found on the Web site. Another excellent source of information about <u>standards</u> for qualitative research can be found on the Web site of the Marketing Research and Intelligence Association (MRIA).

## 4.1 Focus Groups

Focus groups often follow a standard framework for gathering qualitative data. These include:

- > Set time limits, usually 90 minutes to two hours long, depending on the selected approach.
- Usually two focus groups per location for in-person groups to maximize efficiency and costeffectiveness.
- > Trained moderator.
- > Semi-structured or open format discussion.
- > Eight to ten participants.
- Researchers usually strive for some homogeneity in the group's composition (i.e., participants typically share some common characteristics demographics, product usage or life experiences).
- > Participants do not know each other in advance of the group.

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- Participants may know the general topic to be discussed (or may not), and are given no specifics in advance.
- > Participants generally receive a monetary incentive for their participation.

- In-person discussions usually take place in specialized facilities that allow unobtrusive observation by the client and audio/videotaping of the discussion; online discussions can be conducted using secure sites and teleconferencing can be done as a regular conference call or using an online conference system.
- > Transcriptions of the audio tapes (tape transcripts) and remote record of telephone and online sessions transcripts facilitate report writing.

**Note**: Government laws and policies (see <u>Privacy Act</u>), and industry standards require that participants' confidentiality be assured at all times, and that participants' consent be given in advance for both the presence of observers and for the audio/videotaping of sessions. With respect to videotaping, participants must be told the purpose of the research and what the tapes will be used for, and must sign consent forms. It is a joint research firm-client obligation to ensure the safekeeping of information that could identify particular individuals (see <u>Personal Information Protection and Electronic Act</u> – PIPEDA).

As with all research methodologies, the focus group technique must be carefully employed to ensure effective results. It requires rigorous recruitment procedures to ensure the right mix of participants and the elimination of "professional" participants (people who attend groups regularly and become experienced participants, and thus are questionable representatives of the larger target group). To prevent "professional" participants and to deal with those who should not be contacted when recruiting for qualitative studies, the MRIA has created the Qualitative Research Registry. This is a comprehensive "do not call" list that includes Canadians who have participated in qualitative research, those who have asked not to be contacted further, and those felt by recruiters and moderators to be best served by not being contacted.

Successful groups also depend on an experienced moderator/interviewer able to establish rapport quickly and remain in charge of the discussion. A good moderator/interviewer:

- > Demonstrates tact and is empathetic.
- > Is able to neutralize group influence and dominant individuals, while encouraging contribution from more passive, less vocal members.
- Is not wedded to the discussion guide, but demonstrates flexibility in adapting the discussion flow to the experiences and directions of the participants, while still covering the issues and gathering the information that the client needs to know.
- > Is not satisfied with brief or shallow answers, but is skillful at probing for deeper underlying attitudes and eliciting the wealth of information that is possible from a well-run focus group.
- Captures a broad spectrum of opinions on an issue and does not make sweeping generalizations based on comments from one or two participants, which can lead to misleading results and a waste of the client's time and money.
- Is appropriately experienced and trained in using the qualitative method selected for a particular project.

A common element of virtually all qualitative research is that the quality of the information collected is highly dependent on the quality of the moderator.

The different types of focus groups are described in the sections that follow, along with their potential advantages and disadvantages.

#### 4.1.1 In-Person Focus Groups

In-person focus groups tend to be used when:

- > Interactions from participants may trigger new thoughts or ideas;
- > The subject matter is not sensitive;
- > Cost and/or turnaround time are important;
- An appropriate number of the target audience can be assembled in one location at the same time.

In-person focus groups permit the presentation of a wide range of stimulus materials, including pictures, taglines, audio, or visual presentations. In-person focus groups also allow the moderator and observers to see the facial expressions and body language of participants, which will often give more meaning than just the words alone. The moderator can therefore probe not only on what has been said, but also on the non-verbal behaviour indicators. In-person focus groups are good at eliciting the emotional reactions of a target audience, particularly where immediate reactions are important (e.g., advertisement testing) as well as for asking respondents to elaborate on their reactions.

In some cases, the target audience is more adept at participating in in-person discussions than online discussions (e.g., seniors, persons with a disability). In addition, focus groups are relatively flexible: the moderator can adjust the focus group guide on-the-spot if necessary or for subsequent focus groups in the study based on experience or observer feedback. Focus groups can also be combined with "homework" (i.e., tasks participants are required to complete outside of the focus group participants are asked to comment on such experiences, the immediacy of their reactions will be lost; the trade-off is considered feedback in an area that otherwise would not be explored in the research. It can also be difficult to monitor whether or not participants have completed the "homework" as requested.

The presence of observers requires a special research facility or remote video setup. While travel to a focus group may not be optimally convenient for client observers, such observation tends to be relatively engaging for clients.

The success of in-person focus groups is largely contingent upon the correct screening and recruitment of research participants (as is the case with all qualitative research), which can be difficult with certain harder-to-reach or low-incidence segments of the population (e.g., those living in remote regions; highly-specialized professionals), as well as the moderator's skill at eliciting feedback and managing group dynamics (e.g., handling dominant or submissive participants).

#### **Note Regarding Recruitment and Quality Control**

One advantage of in-person focus groups compared to techniques that use technology (discussed in the next sections) is that researchers have greater control over the composition of the groups. Because participants are physically present at the focus group facility, researchers are better able to evaluate participants against the recruitment eligibility criteria. Simply put, the moderator can directly observe whether the person participating in the group is really someone who meets the study's screening criteria.

### Table 2: In-Person Focus Groups

Relative Advantages		Potential Disadvantages		
•	Group dynamics produce new ideas, unexpected insights	1	Group dynamics reduce openness on sensitive subjects	
•	Lower cost than one-on-one interviews	•	Little geographic flexibility – participants must	
•	Fast turnaround time		physically assemble at the same time	
•	Can present wide range of stimulus materials	÷.,	Difficult to monitor completion of "homework" or understand immediate reactions to any	
•	Captures immediate emotional reactions		experiences outside of the focus group	
•	Good for detecting emotional reactions through nonverbal behavior	1	Special research facility/technologies and travel required for client observers	
•	Good for elaboration of participant responses	•	Inappropriate screening of participants can bias	
•	Accessible medium for most participants,		results	
	especially for those who might have found other mediums unfamiliar or difficult to use	1	May be more difficult to recruit hard-to-reach and low-incidence segments of the population	
•	Flexibility – permits modification of study design while in progress	1	Dominant or submissive participants reduce effectiveness (group dynamics)	
•	Engaging for client observers	1	Cannot support much within-group heterogeneity	

#### 4.1.2 Telephone Focus Groups

A telephone focus group is similar to an in-person focus group, except that it is conducted over the phone. This approach is useful when the target audience is a hard-to-reach audience since participants can be recruited from anywhere in the country (or world depending on the parameters of the study), and don't have to show up in a specific location for an in-person focus group. By interviewing them in their home or office via the phone, no travel is required, saving time and money. With telephone focus groups, there can be a higher degree of openness and honesty from participants due to the anonymity and the fact that the phone creates a 'psychologically safer' environment, which makes them useful for research involving sensitive topics. This characteristic also helps reduce group influence over responses.

The group size for telephone focus groups tends to be kept somewhat smaller than for in-person groups, and group interactivity tends to be reduced. The depth of feedback can be somewhat reduced as well, given the limitation on interactivity, though immediate emotional reactions can still be explored, and tone of voice can add to the analysis of participant responses. Moderators can probe for further elaboration over the telephone quite easily, and are able to modify their questions with relative

flexibility, just as is the case in an in-person focus group. Groups may be able to accommodate greater heterogeneity than in-person discussions, since participants are unable to see one another.

Telephone focus groups can be conducted as a regular conference call or using an online conference system, though the quality of the service is variable as it relies on an Internet connection. Telephone focus groups with online access can also be used when visual stimuli are needed, such as advertisements, posters, Web pages, or other written or audio material. They can also be used with Webcams to allow the moderator to view body language and facial expressions, though sometimes this option poses technical difficulties and is a less accessible technology.

There are several services that can remotely record telephone groups and prepare transcripts of the sessions, which if needed, can be ready the next day. As with traditional focus groups, the quality of the information obtained from telephone focus groups is highly dependent on the quality of the moderator's skills. While "homework" can be assigned and discussions of external experiences can be useful, the same difficulties that can arise in an in-person focus group (e.g., inability to verify "homework" was done; loss of immediate reaction to external experiences) apply to a focus group conducted by telephone. Client observers can listen in on telephone focus groups conveniently, though the experience may be less engaging than an in-person group.

Relative Advantages			Potential Disadvantages		
ĵ,	Good for recruiting hard-to-reach or assemble respondents, including low-incidence groups Widely-accessible medium (less so with online	:	Smaller group sizes Not as interactive or as elaborate feedback as in-person groups		
	viewing option)		Poor quality at times since it relies on phone		
11	Cost – saves on travel expenses		lines		
1	Lack of in-person contact can increase participant openness and honesty	•	Cannot see body language or facial expressions (unless Webcam is used)		
•	Less group influence	•	Difficult to monitor completion of "homework" or		
•	Probing effective – good for elaboration of responses		understand immediate reactions to any experiences outside of the focus group		
•	Flexible – can adjust questions as needed	•	Less engaging for client observers than an in-		
1	More heterogeneity is possible due to lack of in- person contact				
1	Tone of voice can give information on participant emotions				
•	Easy and quick to set up				
•	Client can listen to the sessions conveniently				

### **Table 3: Telephone Focus Groups**

#### 4.1.3 Online Chat Focus Groups

Focus groups can be conducted online in real-time using 1) a commercially-available chat-based platform, or 2) Webcams. In online chat focus groups, the moderator and participants log in at a scheduled time and proceed to a "discussion" or chat, with the moderator entering questions and responding to participants' reactions in real time. Participants' access to the group is controlled by a user name and password. The comments can be captured instantly in a database. Moderator and participants are not able to see one another – there is no visual connection or interaction.

Unlike online chat focus groups, remote Webcam groups provide the benefits of visual contact for realtime face-to-face discussions. During live Webcam sessions, recruited participants in various locations use Webcams (computers and Internet connection) to see and hear the moderator and each other on their computer screens, and interact in real-time.

When using online real-time focus groups, the moderator can have visual and audio stimuli, such as Web pages, print, television or radio advertisements and other discussion materials available online for participants to see, listen to or use. If only using a chat-based platform (and no Webcams), with participants being in their home or office, a psychologically safer environment is created, and consequently participants tend to feel more at ease and more open. Like telephone focus groups, online chat groups are more convenient for participants than going to a focus group facility, permit a greater geographic range of participants in one group, allow researchers to assemble individuals that might otherwise be difficult to reach, and eliminate the costs of travel for researchers and observers. In addition, there can be less group influence in an online chat focus group than with in-person focus groups.

Clients can observe in real time from their own computers, communicate and privately chat with each other and the moderator, or view recordings of the sessions later from a private online archive – transcripts/recordings can be available immediately. The turnaround time for online chat focus groups is relatively fast.

Online chat focus groups are limited in a number of ways. In chat-based groups, participants' literacy and typing skills greatly affect their ability to participate. It can be difficult for participants to offer their own answers, as well as follow the answers offered by others in the timeframe allowed. As a result, group interactivity can be reduced and feedback offers less depth than other techniques. Probing can be effective with the use of Webcams, although in chat-based groups, participants may miss a moderator's probe amongst a string of comments. Moderators can reframe their questions where appropriate when using Webcams just as they could with in-person groups. In chat-based groups, this can be somewhat more difficult given the need to type clarifications to different participants as needed.

With Webcams, technical difficulties can arise among participants who are less familiar with the technology, or due to software incompatibilities or Internet reliability. With Webcams or without, online chat focus groups are limited in terms of number of participants given the difficulty of following typed discussions in real-time and/or monitoring several Webcam conversations at once. In text-based groups, greater heterogeneity than in in-person groups is possible given that participants cannot see or hear one

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another. However, only segments of the population who can be assumed to be adequately familiar and capable with the relevant technology are appropriate target populations for these techniques. Online chat focus groups are comparable to in-person focus groups in terms of managing "homework" and the integration of external experiences.

Re	lative Advantages	Potential Disadvantages		
•	Suitably equipped for visual or audio stimuli (i.e., advertisement visuals, Web pages, audio	1	In chat groups, participants require good literacy, typing and computer skills	
	material, etc.) since participants have access to a computer	•	Will not generate same group dynamics as in- person sessions	
1	Lack of in-person contact can increase participant openness and honesty	÷,	Typed answers are generally shorter, therefore less elaboration of responses	
•	Less group influence		More difficult to probe or modify questions	
•	Clients can follow chat and make private observations to moderator		effectively in chat-based groups	
		•	Use of Webcams can create technical difficulties	
1	Electronic transcript/recordings available immediately	•	Limited to smaller group sessions	
•	Convenient for participants	•	Computer users tend to be skewed in terms of	
•	Geographic flexibility		not be appropriate for all segments of the	
•	Easier to include specialized audiences and		general population	
	hard-to-reach segments of the population	٠.	Difficult to monitor completion of "homework" or	
•	Cost - saves on travel and transcript expenses		understand immediate reactions to any experiences outside of the focus group	
•	Fast turnaround time			
•	Greater heterogeneity possible than in-person groups (without Webcams)			

### Table 4: Online Chat Focus Groups

#### 4.1.4 Online Bulletin Board Focus Groups

The online bulletin board involves inviting pre-screened participants to a specific Web site where a discussion topic is posted for an extended period of time, usually from three to five days. Participants are generally provided with login information to a secure site. Discussions on bulletin board focus groups are asynchronous – moderators and participants need not be logged in at the same time and questions can either be posted by the moderator or set to post automatically at pre-determined times. While moderators can offer clarifications and amendments to a question, this is more difficult once a question is actually posted and viewed by respondents – reframing cannot be made in real-time as with in-person groups.

When the bulletin board is active, participants can see what others have written and respond to them at their convenience. Moderators are able to probe participants on the bulletin board directly or can send private email probes or reminders (e.g., to encourage greater participation) to individual participants. This is important to stimulate continued participation and can be difficult to manage effectively.

Participants should be informed of the expectation to interact with other participants, and reminded of this expectation if necessary; otherwise, group interaction can suffer.

Observers are generally able to post privately to the moderator and/or other observers, invisible to participants. Different bulletin board providers will offer different question options, which may include options to post certain questions only to certain subgroups or individuals within a group, make questions uninfluenced (i.e., require a response from a participant **before** the participant is able to view other participants' responses), or force responses to certain questions in a particular sequence. Transcripts from bulletin boards are available immediately.

Bulletin board focus groups may make use of multimedia platforms. Most will support images, video, Webcam uploads, or Web page stimuli in the discussion. Many bulletin board platforms also allow for customizable question types, participant segmentation tools, content tagging, participant profiles and avatars, and various analysis and reporting options. Many bulletin boards have the capacity for advanced communication testing through the use of a "whiteboard", a tool whereby participants can mark-up posted media, such as images, brochures, or advertisements.

This kind of research may not get at immediate emotional reactions to stimuli, as participants have time to consider their responses and may "overthink" a response. However, these asynchronous groups make it easier for participants to integrate external experiences into the group and comment on "homework" throughout the group discussion period (e.g., visiting a government service centre and posting about the experience as requested by a question on the bulletin board within an hour of receiving service).

Online bulletin boards have the advantage of allowing for flexibility in scheduling. They overcome the problem of differing time zones and differing participant work or study schedules. They also facilitate participation of hard-to-reach audiences, such as business executives, rural residents, physicians, or small-incidence groups that are geographically dispersed. Furthermore, the research schedule can be reduced by running several bulletin boards simultaneously. Bulletin boards produce results with relatively quick turnaround times and lower costs than in-person focus groups since travel is not required.

Online bulletin board focus groups allow participants time to reflect on their responses, which can elicit greater richness and depth of feedback. Because of their extended duration, they also permit the presentation of more complex stimuli than would be possible in real-time settings. Bulletin boards, like other online media, contribute to a sense of anonymity, facilitating discussions on sensitive topics, as well as reducing social desirability bias. In bulletin boards, all participants have the opportunity to participate without time pressure or the potentially adverse effects of in-person group interaction. They can accommodate a relatively high degree of heterogeneity within a group, particularly if a platform is used to pose certain questions only to particular sub-segments of the group.

It is important that participants have appropriate levels of literacy and computer skills. For some, the thread of bulletin board groups can become confusing, particularly when there are large volumes of messages. As with all research that is not conducted face-to-face (either in-person or mediated by

Webcam), researchers should also take into account that it can be difficult to know for certain whether the person participating in the group is really someone who meets the study's screening criteria.

Online bulletin board focus groups are well-suited for discussing new advertising concepts, Web siterelated research, high-interest topics, or when longitudinal research is needed. If the research topic is one in which participants' interest is likely to be low, other methods may be preferable to bulletin boards.

It should be noted that bulletin board platforms may be used in conjunction with other methods. For example, bulletin boards may be used for the assignment and completion of "homework" prior to or following in-person focus groups. They could also be used to enable participants to share their experiences in activity-based research, such as feedback on attending events or festivals, or service experiences.

Relative Advantages			Potential Disadvantages		
÷,	Clients can follow online bulletin board focus groups and make private observations to	•	In chat groups, participants require good literacy, typing and computer skills		
	moderator, though the lengthy duration of the discussion can be time consuming	•	Difficult to reframe a posted question		
	Suitably equipped for visual or audio stimuli (i.e.,	•	Can be difficult to manage effective probing		
	advertisement visuals, Web pages, audio material, etc.) since participants have access to	•	Cannot guarantee immediate emotional reactions from participants		
	a computer; option to have material marked up on a whiteboard	•	If not a high-engagement topic and participants are not stimulated, feedback can be less		
•	Transcripts immediately available		fulsome and participants can become		
1	Convenient – accommodates varying schedules and geographic regions	•	Requires continuous management and		
•	Can overcome challenges of different time zones		maintenance		
1	Easier to include specialized audiences and hard-to-reach segments of the population	:	Large volume of messages can be		
•	Fast turnaround time		overwhelming and it may be hard to follow the thread of the conversation		
1	More easily integrates external experiences and "homework"	•	Difficult to be certain that participants are those who were recruited/meet the screening criteria		
•	Cost - saves on travel and transcript expenses				
•	Potential for greater depth of feedback				
•	Sense of anonymity induces openness				
1	More individual opinions and less group influence and social desirability bias				
1	Can accommodate a relatively high level of within group' heterogeneity				
•	Can be more engaging for participants (if high interest topic)				

### **Table 5: Online Bulletin Board Focus Groups**

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## 4.2 Dyads and Triads

Dyads (groups of two participants) and triads (groups of three participants) are similar to standard inperson focus groups, but they vary in the number of participants and/or length of the discussion. These smaller-group techniques can help to overcome one of the potential flaws of larger focus groups; that is, undue group influence that can affect individuals' responses. However, the positive aspects of group dynamics are also reduced with dyads and triads. Many qualitative researchers emphasize the value of these techniques (as well as individual interviews) to test creative concepts and finished advertisements.

Dyads and triads are sometimes used instead of standard in-person focus groups to make optimum use of the research budget when there are several segments of the target population that need to be heard from, or as replacement for one-on-one interviews to reduce the research schedule. Substituting dyads and triads for focus groups, however, can become more time consuming (because, generally, more of these groups will be included in the research compared to standard focus groups).

These smaller groups are also useful for research with children and teens because they allow for smaller age spreads (something that is important when conducting research with these audiences), can help minimize disruptive behaviours, and can make it a more comfortable environment in which to participate because of the small number of participants (one of the challenges conducting research with teens and children is that they can be reticent). In smaller groups such as this, the moderator has greater control over the direction of the discussion.

Although dyads and triads are no more statistically projectable to the general population than focus groups, when conducted by a skilled moderator they can collect useful findings on issues, programs and services with a relatively quick turnaround time (depending on the number to be conducted). These smaller-group interviews can vary from 30-minute sessions to all-day events, and are customized to the client's needs. As with focus groups, clients can observe dyads and triads and make suggestions for changes, as needed.

Dyads and triads share some of the limitations of in-person focus groups, including the need for a research facility if clients are to observe discussions, dependency on the skill of the moderator (as is the case with all qualitative research techniques), and a limited ability to accommodate geographically-dispersed populations.

## Table 6: Dyads and Triads

Relative Advantages		Potential Disadvantages		
•	Minimizes the negative influence of group dynamics; can increase openness	•	Less group dynamics than standard in-person focus groups	
ľ	Facilitates homogeneity of participants; allows for collecting views from several segments when study population is fragmented	•	More time consuming than focus groups for moderator and client observers (for same number of participants)	
÷,	Lower cost than one-on-one interviews (for same number of participants)	1	Generally requires focus group facility	
•	Effective with children/teens		dispersion	
•	More moderator control			
•	Fast turnaround time			
ľ	<ul> <li>Flexibility – allows client to observe discussions; permits modification of study design while in progress</li> </ul>			

## 4.3 Individual In-Depth Interviews

For certain studies, it might be more appropriate to conduct individual interviews rather than group interviews. For instance, in-depth interviews could be used when:

- > The topic is too personal or sensitive to be discussed in a group setting.
- > A person's opinion can easily be influenced by others in the group.
- It is as important to learn what people don't know about a subject as what they do know. In a group setting, knowledgeable participants may inhibit less knowledgeable ones, making it more difficult to explore areas of ignorance or misperception.
- > The participant must accomplish a task, such as navigating a Web site or operating a voiceactivated telephone system.
- Logistical issues make groups impractical (e.g., when participants are geographically dispersed and travel time and costs are prohibitive).
- > Confidentiality of the participant is required.
- > The target population consists of executives from competing firms, who would be reluctant to open up in a group situation.
- > There is considerable heterogeneity in terms of the target population (e.g., a mix of different types of stakeholders, such as academics, association executives, government representatives, etc.).
- > It is important to interview the participant in a particular environment.

Typically, this technique is employed when conducting "executive" or "elite" interviews with decision makers or opinion influencers or with participants known to have been involved in a particular experience. A trained interviewer uses an interview guide that consists mostly of open-ended questions to be asked in-person or by telephone.

The in-depth interview provides participants with considerable latitude to express their views. Interviews typically last from 30 to 60 minutes, but they can run longer depending on the participant's interest or expertise in the topic. Interviews such as these often require no specialized facilities. This technique allows the researcher to obtain detailed descriptions of individual experiences or perceptions, which allows for greater depth from each participant than would be possible in a focus group. The study design can be quite flexible, allowing interviewers to adapt a guide where necessary.

In-depth interviews can become expensive if done in person (if conducted over the telephone costs can be kept lower), and they are more time consuming than hearing from the same number of participants in a focus group (conducting 20, 60-minute one-on-one interviews requires more time than conducting two focus groups with 10 participants in each group). Interviews do **not** allow for group dynamics of any kind and client involvement is limited.

Relative Advantages		Potential Disadvantages		
•	Most anonymous and confidential technique – permits discussion on sensitive subjects	High cost per i done in persor	nterview, particularly if interviews า	
	No group influence	No group dyna	amics	
•	Useful for questions of knowledge,	Can be more t	ime consuming	
	communication or comprehension	<ul> <li>Limited client involvement; less opportunity to observe discussions</li> </ul>	nvolvement; less opportunity to	
1	Useful with hard-to-reach target audience (executives, professionals, geographically- dispersed participants)		ssions	
•	Permits greater depth of response per individual			
•	Flexibility – can be conducted in person or by telephone			
•	No need for specialized facilities, if conducted by telephone			
•	Permits modification to study design while in progress			

### Table 7: Individual In-Depth Interviews (One-on-ones)

## 4.4 How Many Groups or Interviews Do I Need?

For each technique described in this chapter of the guide, an important decision that will need to be made is the number of groups or individual interviews that should be conducted to meet the study objectives. As a general rule, the more segmented your target population, the more groups or interviews you need, if you want to maintain the homogeneity usually required for an effective group discussion.

Other factors that can determine the number of groups could include the following:

- > **Income and education:** Avoid a wide range of different economic and education levels in the same group.
- > Level of expertise in the subject matter: Try to keep the knowledgeable or experienced participant separate from the novice or beginner (e.g., Internet users, subject matter experts).
- > **Product use:** Try to keep users and non-users in separate groups (e.g., heavy smokers vs. occasional smokers vs. non-smokers).
- > **Gender**: You might not include men and women in the same group if the subject matter is gender sensitive. Also, cultural differences may need to be taken into consideration.
- > Age: If possible, children and teen groups should not have more than a two-year age span.

A good test to help determine the number of focus groups or interviews needed is to identify how many segments are needed to obtain fulsome perspectives on the subject matter. In the case of focus groups, ideally, two groups would be conducted with each segment of the target population. You must also assess whether or not regional perspectives are expected to vary or are important to the credibility of the research.

The last two decades have seen increasing use of qualitative methods. In fact, there is a tendency to automatically think of focus groups whenever research is contemplated, perhaps because this method for collecting information is interesting to clients. However, regardless of the specific technique used for qualitative research, the findings are not statistically significant, no matter how many participants or groups are used. Qualitative techniques must be used selectively and when they are the most appropriate approach to a research problem. Qualitative techniques should never be used as a substitute for quantitative research.

## **5** Quantitative Research

Quantitative research gathers data about people's opinions, attitudes, expectations, and behaviours through surveys. Data can be collected from each member of the study population just as Statistics Canada does every five years when it conducts the census. Most typically, however, data are collected from a sample that is selected to represent the population of interest, in which case the collection is called a sample survey or simply a survey.

An example will illustrate the basic difference between the treatment of results from a census and results from a survey. Suppose you want to survey the 2,000 employees working in a particular office building to find out how many used the bus to come to work that morning. If **every** employee is interviewed and 1,000 are found to have come by bus, then one can state, as a fact, that 50% of employees of that building used the bus to come to work that morning. However, if only 1,500 are interviewed and 750 are found to have come by bus, the result is still 50%, but this would be an estimate, not a statement of fact.

The basic question then becomes: is the result obtained from a census very different from the result obtained from only a proportion of the population? The answer to this question lies in sampling theory and the ability to compute the sampling error – the error due to the fact that data are collected from a sample of the target population only, not from the full population.

Using rigorous techniques and systematic procedures, researchers can use the results of a survey based on a random sample to make conclusions about the population as a whole. In other words, in a well-designed survey with a representative sample of the target population, the results can be extrapolated to the full population.<sup>1</sup> Findings of a probability sampling survey are usually accompanied by the survey's margin of error (described, for example, as "accurate within plus or minus 2.5%, 19 times out of 20"), allowing people to gauge how much confidence they can have in the results. Common types of probability sampling include random sampling, cluster sampling, stratified sampling as well as combinations of these three.

Results from surveys not based on probability sampling cannot be projected to the larger population, although these types of surveys can provide descriptive statistics, such as means, medians, modes and standard deviations. Common types of non-probability sampling include quota, convenience, snowball and judgment sampling.

The response rate is another indicator that can produce information on the accuracy of the results and the potential risk of bias in data quality. The response rate is one measure to help determine the extent to which the survey results are representative of the survey population. Survey nonresponse can bias samples (and therefore survey data) if the sample composition is substantively different from the target population. The

<sup>&</sup>lt;sup>1</sup> This only applies to *probability sampling* and not to non-probability sampling. Probability sampling refers to a sample where every unit in the population has an equal chance of being selected. Non-probability sampling refers to a sample in which units of the population are selected by factors other than random chance; therefore, some elements of the population may have no chance of selection. The probability of selection cannot be accurately determined and generalizations cannot be made to the entire population.



biasing effect of nonresponse can be greater as the response rate drops; therefore, higher response rates are sought to decrease the likelihood of nonresponse bias.

The response rate is, however, insufficient on its own to determine the quality of the data. It is important to not only consider response rates, but also other factors related to data quality, such as questionnaire design, sample coverage, data collection, quality control measures and so forth. Although, high response rates are desirable, higher response rates do not necessarily produce more accurate data and surveys with lower response rates can still provide useful and valid data.

PORD developed standards for the conduct of Government of Canada public opinion research for telephone and online Surveys. Measures have been put in place to help ensure that quality research is conducted to provide the most representative results. These standards **must** be referred to when conducting quantitative studies on behalf of the federal government.

Quantitative research can be used for many purposes, including (but not limited to) the following:

- > Evaluate the effectiveness of a program or service;
- > Post-test an advertising campaign;
- Measure client satisfaction;
- > Track changes in attitudes and perceptions over time;
- > Validate findings discovered in qualitative research;
- > Gather baseline data as the basis for policy or program development;
- > Identify market segments;
- > Measure product/brand usage;
- > Determine the client profile.

The most common quantitative techniques are identified below, along with their potential advantages and disadvantages.

**Note:** Please visit PORD on the <u>Internet</u> and PORD's <u>intranet site</u> in order to learn more about the standards for conducting Government of Canada POR. Among other resources, <u>best practices in public opinion</u> <u>research</u> can be found on the Web site. Another excellent source of information about <u>standards</u> for quantitative research can be found on the Web site of the Marketing Research and Intelligence Association (MRIA).

## 5.1 Telephone Surveys

Telephone surveys are used frequently, in part because of their advantages of speed and control over data collection. Using a structured questionnaire, interviewers contact members of the selected sample or list (i.e., households, companies, organizations, etc.) by telephone and ask to speak with the selected respondent; that is, the person who best fits the criteria of the target population. As a result, this survey method allows for significant researcher control over the sample that is selected. In addition, probability

sampling is possible with telephone surveying, which allows results from the sample selected to be projected onto a larger population.

Every attempt should be made to reach the selected respondent. As per the <u>Standards for the Conduct of</u> <u>Government of Canada Public Opinion Research – Telephone Surveys</u>, firms have to make up to eight follow-up calls (call-backs) before retiring a number and substituting it with another to reach the appropriate respondent and maximize response rates. The call-backs must be made at varying times of the day and days of the week over a minimum of a seven-day period. Once the respondent is reached and agrees to participate in the survey, the interviewer records the respondent's answers to the questions. Telephone survey questionnaires can contain many types of questions, including yes/no, multiplechoice, simple rating or ranking questions, and open-ended questions.

Most, if not all, telephone interviews are computer assisted. The use of a CATI (computer-assisted telephone interviewing) system allows the interviewer to enter respondents' answers directly into the computer, avoiding the need to print a large number of questionnaires, enter responses manually and edit, code and tabulate completed questionnaires. The flexibility of CATI allows for the administration of complex question patterns and reduces human errors inherent in paper-and-pencil questionnaires.

As a general rule, and as per the <u>Standards for the Conduct of Government of Canada Public Opinion</u> <u>Research – Telephone Surveys</u>, telephone surveys should be limited to 15 to 20 minutes in length. Beyond this, the rates of refusal to participate and early termination (the respondent asks to stop the interview) increase. Respondent fatigue can also set in with longer surveys, undermining the validity of the results because respondents are less likely to give considered responses. As well, complicated questions should be avoided in a telephone survey because there is no face-to-face contact with the interviewer.

Telephone surveys are particularly useful for measuring next-day recall of advertisements, the impact of a newly-announced governmental policy or governmental response to changes in the public environment (e.g., unforeseen events and natural disasters).

Telephone surveys are less expensive than personal in-home surveys, and faster than either in-home or mail surveys. They can be conducted from a central location, allowing for monitoring of interviewers and thus more control over data collection. Clients can listen in and are encouraged to do so (at least for the pretest) whether at the location itself or electronically.

Problems associated with telephone surveys revolve around a number of factors, including:

- Decreasing response rates due to ease of refusals, telemarketing activities, increasing use of cell phones, residential caller ID, call screening and answering machines.
- > The inability to show visual stimuli.
- > The limited rapport between the interviewer and respondent, and lack of face-to-face contact that impedes the ability to collect observational data.
- > Declining proportion of the population accessible by landline telephone.

> Similar to the preceding bullet, coverage error, which results from cases where people have no phones or have unlisted numbers.

#### 5.1.1 Inclusion of Cell Phones in General Public Telephone Surveys

Changes in available technologies have had a large impact on telephone surveys. With wireless telephones, the use of traditional landline telephones has declined in Canada. This has impacted the way telephone research is being conducted. The growing prevalence of Canadian households with cell phones only (i.e., no landline phones) carries with it the risk of coverage bias if cell-phone-only households are excluded from general population studies. The proportion of cell-phone-only households is higher for certain socio-demographic groups, such as younger or less affluent Canadians. Samples that include both landline and cell-phone-only households (dual-frame approaches), therefore, should be considered for general population telephone surveys. Cell-phone sampling, however, is more costly than landline sampling at this time (design specifications being equal).

It is important when conducting research with respondents on cell phones to ensure respondent safety and confidentiality. The researcher has an obligation to take all reasonable precautions to ensure that respondents are not harmed or adversely affected as a direct result of participating in an interview. Furthermore, in recognition that cell phone respondents might be contacted during an activity, work or social situation where others may overhear the call and confidentiality could be compromised, ESOMAR recommends that survey content be considered in this light and, if appropriate, calls rescheduled.

#### 5.1.2 Interactive Voice Response Surveys

Another technological change in telephone surveys is the introduction of Interactive Voice Response (IVR). An IVR survey shares some characteristics with a telephone survey since the survey is conducted over the telephone. However, rather than having a live interviewer conduct the survey, the survey is delivered by a computer using an automated pre-recorded script. The respondent is asked to enter his/her responses using the keypad of the telephone or by verbalizing comments. With lower costs in comparison to a live interviewer, IVR has been used in some surveys, particularly those where large sample sizes were required.

IVR, moreover, tends to be used most often for shorter surveys and surveys that are not complicated in nature (e.g., with numerous skip patterns or lengthy preambles to questions). IVR surveys also tend to produce lower response rates than do traditional telephone surveys. This is often offset by high volumes of calls for a study in order to achieve the target number of completions, something that can be perceived by respondents as being intrusive. Some respondents prefer to speak with a live interviewer, and are uncomfortable participating in an IVR survey.

The reader is cautioned to read the standard of the Government of Canada that pertains to the use of IVR for telephone surveys (see section 5 entitled "<u>Survey Respondents – Retaining Public Confidence</u>").

As noted, PORD developed <u>Standards for the Conduct of Government of Canada Public Opinion</u> <u>Research – Telephone Surveys</u>. These standards are to be observed in addition to all relevant laws, regulations and policies (e.g., the <u>Personal Information Protection and Electronic Documents Act</u>, the

<u>Privacy Act</u>, the <u>Library and Archives of Canada Act</u>, and the <u>Communications Policy of the</u> <u>Government of Canada</u>).

## **Table 8: Telephone Surveys**

## **Table 9: Inclusion of Cell Phones in General Public Surveys**

Relative Advantages		Potential Disadvantages	
•	Reduces coverage error and therefore increases the extent to which results can be extrapolated to the full target population (e.g., includes younger respondents that may be missed with landline only surveys since a large portion of this segment of the population tend to use cell phones only)	•	More costly than landline sample Screening required ensure participants are in a safe location to respond

### **Table 10: Interactive Voice Response Surveys**

Relative Advantages		Potential Disadvantages		
•	Minimizes social desirability bias	•	Limited to basic and self-explanatory questions	
•	Cost-effective, reduced interviewing cost	•	Higher non-response	
•	Good for large sample sizes	•	Intrusiveness, higher call volume	
		•	Lack of appreciation from some respondents, prefer speaking with a live interviewer	

>

## 5.2 Online Surveys

Online surveys can be valuable tools for obtaining feedback on programs or services or to survey employees or populations that are hard to reach using other methods. Business populations can be targeted with this method given that virtually every member of the population has email access. An online survey presents an alternative to mail, telephone, and in-person surveys in such circumstances that is less costly and can be accomplished with relative speed. A questionnaire posted on a Web site can collect the views of site users as they are directly engaged and feedback is instant. Furthermore, online surveys provide advantages similar to those of mail surveys, such as:

- > The use of visual materials;
- > Convenience for respondents;
- > The absence of interviewer bias.

There are numerous different types of online surveys, including Web site surveys (i.e., invitation posted on a site), stakeholder studies (e.g., clients, employees, other stakeholder groups) where access to the survey is typically provided through an invitation email and the survey is password protected, and panel studies of the general public, including subgroups of the public.

Despite its flexibility, there are issues that users of online data must consider in the planning and design of online surveys and the use of related results.

One of the biggest problems with online surveys is that most that target the general public use panels recruited from the online general public and there is no guarantee that they are representative of the online Canadian population (let alone the Canadian population at a whole). Although Internet penetration has grown at an astonishing rate, certain segments of the population, including older and lower-income people, do not have the same level of access to the Internet. Consequently, it is difficult to construct probability samples of the general population for online surveys. Furthermore, there is the mistaken assumption that conducting online surveys and obtaining larger numbers of completions results in greater reliability. Research findings can only be generalized to the whole target population if probability-based sample methods are used – statistical inference is only possible with probability-based methods. With online surveys, this can be problematic for any target population and is simply not possible for the general population unless the panel recruitment is through telephone RDD.

Self-selection bias is another problem related to sampling: who is completing the survey, and how do they differ from non-respondents? The most dependable online survey is one where the whole target population is known in advance, and randomly-selected respondents are invited to participate and are given a password to access the survey. The least reliable, from a statistical perspective, is one where the general public has unrestricted access to the questionnaire, such as questionnaires on departmental Web sites, allowing for self-selection bias to influence results.

Like telephone surveys, survey non-response is another potential problem with online surveys, particularly for panel studies. Low response rates can be due to a number of factors. For example, technical difficulties, such as lack of high-speed Internet service, unreliable connections and low-end

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browsers could hinder a person's ability to receive or complete a survey. Confidentiality concerns with respect to email and computer literacy levels are also factors that could prevent a person from completing a questionnaire. Depending on the audience, in general, online surveys need to be designed with the less-skilled computer user in mind.

Finally, online surveys are based on self-completed questionnaires; therefore, the level of the respondent's literacy and numeracy will have an impact on the quality of the responses.

Measurement error can be exacerbated in online questionnaires as well. For example, this can result from the following:

- > Who completes the survey the respondent or someone else, such as an assistant or a spouse.
- > Whether the respondent understands the question.
- > Whom the respondent consults for assistance in completing the questionnaire. Because there is no interviewer to clarify confusing questions, some survey respondents return partially-completed questionnaires.
- > Poorly worded questions.
- Variations in people's computers (age, power), operating systems, software, browser settings, monitor size and screen configuration, and user preferences, which can lead to situations where the questionnaire viewed by the respondent is different from what the questionnaire designer intended.

For these reasons, the pretest of an online survey questionnaire is very important (although this is an important step for all types of surveys).

Also, the quality of the data resulting from an online survey can open to question because it is difficult to prevent abuse, such as multiple responses by the same person (usually addressed through password-control of entry to the questionnaire). Nevertheless, the possibility of multiple responses by the same individual is still an issue for some online applications, and it is important that users of online survey data understand the limitations of data collected via various Web-based approaches. Other forms of abuse can pose a problem with online surveys, including the practice of respondents clicking on answers without reading or fully understanding the question (e.g., straight-lining) in order to obtain an incentive. Also, it is easy for a frustrated or bored respondent to terminate an online survey without completion simply by closing a window.

To promote quality and excellence in the practice of public opinion research within the Government of Canada, PORD developed <u>Standards for the Conduct of Government of Canada Public Opinion</u> <u>Research – Online Surveys</u>. These standards apply to custom online POR research surveys conducted for the Government of Canada, including questions added to omnibus surveys. As with the standards for telephone surveys, these standards are to be observed in addition to all relevant laws, regulations and policies (e.g., the <u>Personal Information Protection and Electronic Documents Act</u>, the <u>Privacy Act</u>, the <u>Library and Archives of Canada Act</u>, and the <u>Communications Policy of the Government of Canada</u>.

### Table 11: Online Surveys

Re	lative Advantages	Ро	Potential Disadvantages		
1	Useful for list-based surveys, such as employee surveys, hard-to-reach populations (e.g.,	•	Coverage error – exclusion of some segments of the population		
÷	students) Professional and business populations have	•	Not all panels offer probability samples of general populations		
÷	Lower cost than telephone, mail and in-person surveys	•	Statistical validity seldom achievable unless defined population lists and proper sampling methods are employed		
•	Quick turnaround time	•	Self-selection bias		
•	Instant data capture	•	Non-response due to:		
1	Suitable for multimedia resources, such as audio and visual material		<ul><li>Technical difficulties</li><li>Confidentiality concerns</li></ul>		
•	Convenient for respondents		- Computer literacy levels		
•	No interviewer bias	•	Literacy issues/comprehension problems		
		•	Measurement error exacerbated		
		•	Possibility of repeat entries		
		•	Potential for abuse or error during completion given absence of interviewer		
		•	Easy to terminate without completion		

**Gamification:** The gamification of research is a relatively new concept that involves incorporating certain engaging aspects of games, particularly video games, into research design. Gamification espouses a balance of challenge, reward, and improvement, which researchers may wish to incorporate into their online survey design in order to maximize completion rates, as well as participant engagement. Gamification can also be used in other research mediums, and is particularly well suited to online communities, where community members can be rewarded with the accumulation of points for the quantity or quality of their feedback, which may translate into special privileges or increased incentives.

## 5.3 Mail Surveys

Mail surveys use questionnaires sent either to the entire research population or a sample thereof with the request that they complete and return the questionnaire within a specified time.

Mail surveys are useful for collecting information from members of organizations or defined groups, such as benefit recipients, or groups that would be hard to reach (e.g., those without telephones or Internet access). Like online surveys, they are also useful when visual stimuli, such as advertisements, posters or other written material, are used. Mail surveys can gather a large amount of data at a relatively low cost (compared to telephone surveys, for example). However, just as with telephone and online surveys, there is the potential for low response rates. Particularly for mail surveys, high non-response on individual questions (particularly open-ended questions), literacy issues, and errors in completion are factors that affect response rates.

The absence of an interviewer removes one source of error (i.e., interviewer bias). However, as is the case with all self-administered surveys, it also reduces the level of control on a number of issues pertaining to measurement, such as:

- > Who completes the survey the addressee or someone else, such as an assistant or a spouse.
- > Whether the respondent understands the questions.
- > Whom the respondent consults for assistance in completing the questionnaire.
- > Because there is no interviewer to clarify confusing questions, some survey respondents return partially-completed questionnaires.

Nonetheless, mail surveys provide respondents with the opportunity to complete the questionnaire at their convenience, thus affording an occasion for more thoughtful answers. Also, mail survey questionnaires can be longer and of broader scope than other types of surveys, particularly if the topic is a high-engagement one.

Some potential disadvantages of mail surveys can be reduced by avoiding questionnaires with complex skip patterns, ensuring that questionnaire content and format are well designed, conducting a rigorous pretest, enclosing a letter from the client requesting the respondent's assistance in completing the survey (and pointing out the benefit to the respondent), sending out timely reminder cards and/or screening respondents in advance using a short telephone interview (sometimes referred to as 'placed-mail surveys') that explains the purpose and obtains respondent agreement to participate. Even with these mechanisms in place, mail surveys can be slow given that it takes time to send the questionnaire out and receive returned questionnaires, and data entry of the completed questionnaires is time consuming.

Relative Advantages		Potential Disadvantages	
	Access to hard-to-reach respondents Can present visual aids Cost No interviewer bias Convenience for respondents Can allow for more thoughtful answers Questionnaire scope and length – respondents more willing to answer a range of questions	•	Low return rates Item non-response (i.e., individual questions not answered) Less quality control due to absence of interviewer Not suitable for complex question patterns It takes time for returned questionnaires; clients must wait to hear back from respondents
	anonymously on topics of interest	•	Data entry is time consuming

#### Table 12: Mail Surveys

## 5.4 In-Person Interview Surveys

Personal (face-to-face) interviews can be conducted in respondents' homes or offices, or at events (e.g., fairs), or pre-arranged central locations, such as auditoriums. Questionnaires used in personal interviews

are similar to those used in mail surveys, but instead of being completed by the respondent, they are filled out by the interviewer during the course of the interview with the survey respondent.

Personal interviewing can allow for the administration of lengthy and/or complex questionnaires with relative ease. The interaction between interviewer and respondent can help boost interest in participating in the survey, thereby increasing response rates. Personal interviews are useful when:

- > A large amount of information is needed;
- > Questions are complex;
- > Questions involve tasks (e.g., sorting cards into piles);
- > The study involves the evaluation of visual materials, such as product concepts, commercials or mock-ups of advertisements;
- Observation of a particular respondent characteristic is important (e.g., obesity in a nutrition study).

As with qualitative research, the interviewer selection process for face-to-face quantitative data collection is critical. Presented below is information on the two main types of in-person interview surveys.

#### 5.4.1 In-Home (Door-to-Door) Interview Surveys

This is an expensive research approach to data collection, but one that offers accuracy in terms of both sampling and the recording of information. It allows for accurate selection of respondents since the interviewer can ask to speak to the selected respondent directly and, in general, respondents are more co-operative than with other forms of interviewing, improving response rates. If interviewers use portable devices to conduct the interviews (such as tablets, laptops or smart phones), data entry time and costs can be reduced. However, there are fewer and fewer door-to-door surveys being conducted in Canada for a number of reasons, including:

- > The cost can be prohibitive for most budgets, especially if conducted in rural areas.
- > There are security concerns for interviewers and respondents. Some survey companies will not allow their interviewers in certain urban areas.
- > Door-to-door surveys are time-consuming and, given the logistical challenges of interviewer selection, training, control and travel, they can be difficult to execute.

Relative Advantages		Potential Disadvantages	
•	Sampling and recording accuracy	•	Expensive
•	Interviewer-respondent rapport boosts response rates	•	Data entry needed unless portable devices used to enter respondents' answers
•	Questionnaire flexibility and versatility	•	Security concerns for in-home interviewers
	Use of exhibits	•	Time consuming
•	Observation of respondent	•	Difficult to administer

#### **Table 13: In-Home Interview Surveys**

#### 5.4.2 Exit Interviews/Intercept Surveys

Exit interviews and intercept surveys are especially appropriate when immediate feedback is required from respondents. An example is the evaluation of a client experience (e.g., service offered from a government program). Respondents who have just completed a transaction or made an inquiry are approached by an interviewer on their way out of a location (such as a government office or service centre) and complete a short (often five minutes maximum) questionnaire about that experience.

Similarly, exit surveys can be used to obtain respondents' immediate reactions to particular events, such as fairs, festivals, museums, or exhibits that they just attended, or to simply measure attendance at such events. The respondent may be able to provide a more accurate reaction to the event than if surveyed at a later time, when recall may be less reliable. Exit interviews and intercept surveys are commonly conducted in malls, on the street, at events, or in retail stores.

Increasingly, intercept surveys are being used as a substitute for the more costly in-home surveys. They are useful to survey groups of people who otherwise might be difficult to identify or reach, but who, by virtue of being present at the survey location, are or are likely to be members of the research study's target audience (e.g., festival attendees). They are also advantageous in terms of the speed with which they can be conducted. The major drawbacks of intercepts or exit surveys are that respondents are seldom representative, and response may be low since people may not want to participate in a survey when they are busy rushing to get somewhere. As a result, statistical inferences can seldom be drawn from this type of research, and the reliability of the results is somewhat limited. However, this drawback can be minimized with special sampling procedures that take into account selection of venues, location of interviewers and interview schedule.

Exit interviews and intercept surveys can be streamlined through the use of tablets (or other portable electronic devices), which offer mobility as well as large screen sizes. Interviewers can use tablets either to enter respondent responses themselves through an electronic questionnaire or to ask respondents to use the tablet to fill out a survey and/or to view multimedia. Using tablets reduces data-entry time and costs since answers are immediately stored. Also, results collected in this way can be immediately shared and the questionnaire can be adapted as a result, permitting project flexibility. Survey software designed for tablets can typically operate both online and offline. There are also several applications designed for research of this kind. Where tablets are not available, other mobile devices may be substituted to assist with data collection for exit or intercept surveys.

## Table 14: Exit/Intercept Surveys

Relative Advantages		Potential Disadvantages		
•	Instant recall of experience of respondent		Seldom representative of the target population	
•	Relatively low-cost substitute to personal interviews	•	Complex sampling design to address problems with reliability and statistical inference	
•	Can effectively target certain groups	•	Low response rates	
•	Speed			
•	Use of visual materials			
•	Tablets or other mobile devices can streamline the process			

## **6 Other Data Collection Techniques**

While all research techniques can be *combined* with others over the course of a study to meet various research objectives, certain research techniques are intrinsically suited to *both* quantitative and qualitative research and are used for both purposes. In these cases, the research objective and the specific approach used will determine whether a researcher is conducting qualitative or quantitative work – often elements of both will be combined in a hybrid study. Other techniques cannot be classified as either qualitative or quantitative, but are rather unique types of research (e.g., ethnography). This section discusses these types of techniques, the advantages and disadvantages of each, and provides examples of their use in both a qualitative and quantitative manner.

## 6.1 Social Media Research

Social media is the term used to describe a group of Internet-based applications and technologies that allow people to turn communication exchange into interactive and collaborative dialogue. Social media includes a number of different tools, such as forums, Weblogs, social blogs, microblogging, wikis, photo sharing and social bookmarking, among other things. There are different types of social media, such as collaborative projects (e.g., Wikipedia), blogs and microblogs (e.g., Twitter), content communities (e.g., YouTube), and social networking sites (e.g., Facebook).

Social media is a source for a wide variety of insights, and there are several ways to conduct this type of research. The most prevalent involves using an algorithm to collect information posted on social media platforms (e.g., Twitter, Facebook). Comments or posts are collected based on specific search terms, and can be subsequently analyzed for their meaning. This often involves analysis of comment volume, sentiment, opinion and passion, which may be done using analysis software or by individuals reviewing the comments. Great care must be taken to ensure appropriate search terms are identified, and qualitative research (focus groups or individual interviews) may be helpful to determine common terms for which to search (this could also be accomplished through social media monitoring, where researchers read and analyze content related to a subject in order to discover what language is used in relation to it).

The algorithms needed for collecting comments or posts from social media tend to be proprietary and companies specializing in this area can be retained for the purpose. Not all social media platforms can be searched in this way as a result of privacy settings. Privacy is an evolving and contentious issue that surrounds social media research. Social media research of this type can comprise a one-time study, or it can be an ongoing process of social media monitoring—and not all social media research is POR. As with other data collection techniques, social media research only constitutes POR when it is being used to collect attitudes and/or opinions.

A key advantage of social media research is that it produces results quickly (compared to traditional data collection techniques). Also, this method eliminates interviewer bias and observer effects as respondents

are simply behaving as they would otherwise and have no idea that their comments form part of a study. Another advantage is that multimedia resources, such as audio or visual material, can be used as aids.

Social media research can present a difficulty in terms of not having access to the demographic profile of persons whose comments are collected. It can be unclear where research subjects reside and whether or not they belong to a particular target group. Another challenge that researchers should be aware of is differences among social media platforms in terms of the volumes of comments they produce, as well as the types of people who use each respective platform. For example, in terms of volume, Twitter tends to dominate social media messages, but comments made on Twitter will be of a different sort and derive from a different group of people than other platforms.

To address these challenges, researchers may wish to consider non-probability sampling with quotas or weighting. Rather than sampling individuals by traditional demographic categories (age, gender, etc.), researchers can, instead, sample Web sites, or platforms, according to the type of source (e.g., tweets, status updates, blog entries, forum posts, YouTube video reviews, etc.). Hence, the sampling frame is all tweets, status updates, and blog entries, among others, within a given timeframe. It is also possible to weight results of social media research by source to address inherent volume differences by platform. As mentioned earlier, Twitter accounts for a relatively large amount of social media content, but this content is generated by a comparatively small proportion of social media users. Weights could be used ensure that the research results are not disproportionately influenced by Twitter users—that the feedback from other social media platforms is not obscured by the sheer volume of content produced by Twitter users.

**Note:** The researcher must always bear in mind that samples from social media at the time of writing are neither probability based nor representative of any population except the users of that particular social media. Caveats regarding the nature of these samples must always be included in the report. In the case of samples from Twitter, for example, the researcher may only conclude that these results are representative of Twitter users.

Different sources not only very in terms of their users and the proportions of the population that use a platform, though. They also differ with regard to their medium of communication. For example, blogs tend to involve more balanced and thoughtful feedback, whereas shorter posts in forums or microblogs provide more spontaneous feedback. Sampling and weighting in social media research are areas still in relatively early stages of development. Regardless of the sampling or weighting mechanism used, however, all social media research is subject to coverage error since it excludes people not using social media platforms.

Social media can also be used to distribute survey or study invitations. For example, advertisements can be placed on Facebook, providing potential participants with a link to a survey or other study. Advertisements of this sort allow researchers to target by traditional demographic categories (e.g., gender, age, occupation). Social media invitations can go "viral", spreading across the networks of people who are reached. Not all forums, however, will accept such posts. Research of this kind can include multimedia stimuli and responses.

Conducting research using social media can help to:

- Find out and monitor what your target audience is saying about your organization and/or your products/services/programs.
- > Learn the "language" that your target audience speaks in, in order to better communicate with them.
- Discover larger-scale issues that can be probed using other in-depth methodologies, such as in-person focus groups.
- > Uncover real-time, current 'buzz' without having to wait until it becomes mainstream.
- Understand where conversations are taking place, so as to direct marketing efforts toward specific channels.

#### **Examples**

The following are **examples** of how social media can be used for research:

**Quantitative:** The objective of a study is to discover what Canadians think about the centennial celebrations of an iconic Canadian institution in order to understand the effect of communications in this regard. Researchers define search terms associated with the centennial celebration, including the name of the institution and any key communications terms associated with it. An algorithm is developed to draw a broad, representative sample of online comments or posts related to these search terms. Results are then analyzed through software that measures volume, whether a comment is positive or negative, and how strongly the comment was expressed. It also uncovers new terms that are frequently associated with the search terms. Researchers review a proportion of the results as a form of quality control and note any issues that may not have been addressed with the software. Results are also analyzed by the source of the comment so as to guard against one platform dominating the results. Results allow researchers to understand the "buzz" on social media about the centennial celebrations in order for the institution either to tailor its communications or to pursue subsequent research in order to understand these insights better.

**Qualitative:** To illustrate how fine the line between quantitative and qualitative research is when using social media to collect data, consider the quantitative example above. This time, however, the results are neither tabulated nor quantified. Instead, the verbatim comments in relation to the centennial celebrations are assessed and evaluated by researchers in a qualitative manner only to determine or interpret meaning. The results allow researchers to understand the "buzz" on social media about the centennial celebrations, but they cannot be generalized and applied to the broader population.

#### Table 15: Social Media Research

Relative Advantages		Potential Disadvantages	
•	Quick turnaround time	•	Often lacks traditional demographic information
1	In some cases, eliminates interviewer bias and observer effects	:	Potential for bias by social media source Coverage error – excludes people not using
•	In certain cases can use multimedia resources as aids such as audio or visual material		social media platforms

## 6.2 Online Communities

An online community provides real-world communities with a place to come together using the Internet. Online communities are used to conduct research with a targeted group of respondents whom you engage with and learn from over time. Participants are recruited from sources, such as a panel where you can profile and segment your audience, or from a social network, such as Twitter, YouTube, Facebook, etc. The participants are invited to a private online platform to participate in a variety of research activities over time. Participants can be invited either to qualitative or quantitative research activities (e.g., a qualitative bulletin board focus group or a quantitative survey). It can be a community of practice whose members collaborate and help each other by sharing information and ideas using virtual social networks (e.g., GCpedia).

The size of the online research community will depend on the type of data you need to gather, as well as the level of accuracy required. Small online communities (under 100 participants) tend to be ideal for generating in-depth qualitative findings in order to be able to establish real rapport and probe individual responses. It is well suited for short-term projects and usually a larger incentive for participants is required. Medium online communities (100-200 participants) are well suited for generating open-ended feedback complemented by some quantitative analysis, and they tend to be more appropriate for longer-term projects. As for large online communities, these exceed 200 participants and can even reach thousands. They are suitable for generating frequent quantitative data, as well as ongoing social media chatter.

When conducting research with online communities, researchers have the option of using various methodologies, both quantitative and qualitative, such as surveys, one-on-one interviews, online chat focus groups, open-ended discussion questions, submission of multimedia resources, such as photos and videos, as well as monitoring social media chatter and Twitter-type posts. Online communities can therefore be used to complement other research approaches.

Given their ongoing nature, online communities are good for conducting research over time to understand changing attitudes and behaviours, though they can also be used to generate results to shortterm studies quickly and at relatively lower cost in many cases. Like other online methodologies, research communities give participants a sense of anonymity and reduce group influence on feedback.

This approach is well suited for ongoing advisory groups, user groups, expert groups and especially research groups involving experts worldwide – specialized groups who might otherwise be difficult to assemble in one place or time for a study. Particularly with more longstanding and general groups, one should be cautious of the development of "professional" respondents: those whose perspectives have become influenced by being involved in the research process extensively.

With online communities, researchers need to make the research engaging and interactive for the panellists/communities in order to keep them involved over time. If engaged, community participants tend to give feedback with relative depth and will return to address many topics or the same topic over time if required. It can be difficult to maintain engagement levels over time, so online communities require constant management. The quality of the information obtained from the community will depend largely on the moderator's ability to manage it. Communities often produce large volumes of content, which can be difficult for the moderator to respond to and organize so that participants can follow the thread. Furthermore, with the absence of in-person communications (e.g., facial expressions, tone of voice), some comments can be difficult to interpret.

#### **Examples**

The following are **examples** of how online communities can be used for both quantitative and qualitative research:

**Quantitative:** The objective of a study is to better understand business executives' perceptions of the economy and various government initiatives introduced over time. A series of online surveys are developed and administered to a large, online community of Canadian business executives. Each survey is administered to the same sample of online community members in order to measure changes in perceptions over time or reactions to specific initiatives.

**Qualitative:** To illustrate how online communities can be used for qualitative research, consider the quantitative example above. This time, however, an online community of Canadian business executives is used as a source of recruitment. Executives from the community are invited via email invitations to participate in a series of in-depth telephone interviews, one to obtain general perceptions of the economy, and then follow-up interviews at various intervals that coincide with the introduction of a specific initiative or announcement vis-à-vis the Canadian economy.

## **Table 16: Online Communities**

<ul> <li>Flexibility of methodologies; can complement other research approaches</li> <li>Can engage participants at the leading- edge of trends</li> <li>Good for conducting research over a period of time</li> <li>Quick turnaround, feedback can be obtained in days rather than weeks</li> <li>Cost – generally lower</li> <li>Anonymous</li> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> <li>Requires continuous management and maintenance</li> <li>Large volume of messages can be overwhelming and it may be hard to follow the thread of the conversation</li> <li>Longer than verbal conversation, harder to reply to all the points in a message, easily leaving questions unanswered</li> <li>No facial expressions and body language, risk of misunderstanding</li> <li>Risk of "professional" participants</li> </ul>	Relative Advantages		Pc	otential Disadvantages
<ul> <li>Can engage participants at the leading- edge of trends</li> <li>Good for conducting research over a period of time</li> <li>Quick turnaround, feedback can be obtained in days rather than weeks</li> <li>Cost – generally lower</li> <li>Anonymous</li> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> <li>Large volume of messages can be overwhelming and it may be hard to follow the thread of the conversation</li> <li>Longer than verbal conversation, harder to reply to all the points in a message, easily leaving questions unanswered</li> <li>No facial expressions and body language, risk of misunderstanding</li> <li>Risk of "professional" participants</li> </ul>	÷	Flexibility of methodologies; can complement other research approaches	•	Requires continuous management and maintenance
<ul> <li>Good for conducting research over a period of time</li> <li>Quick turnaround, feedback can be obtained in days rather than weeks</li> <li>Cost – generally lower</li> <li>Anonymous</li> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>	1	Can engage participants at the leading- edge of trends	•	Large volume of messages can be overwhelming and it may be hard to follow the
<ul> <li>Quick turnaround, feedback can be obtained in days rather than weeks</li> <li>Cost – generally lower</li> <li>Anonymous</li> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>	1	Good for conducting research over a period of time		thread of the conversation Longer than verbal conversation, harder to
<ul> <li>Cost – generally lower</li> <li>Anonymous</li> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>	÷	Quick turnaround, feedback can be obtained in days rather than weeks		eply to all the points in a message, easily eaving questions unanswered
<ul> <li>Anonymous</li> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>	÷	Cost – generally lower	•	No facial expressions and body language, risk of misunderstanding
<ul> <li>More individual opinions and less group influence</li> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>		Anonymous		Risk of "professional" participants
<ul> <li>Greater depth</li> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>	1	More individual opinions and less group influence		
<ul> <li>Can cover many topics</li> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>		Greater depth		
<ul> <li>Easy to reach specialized audiences and hard-to-reach segments of the population</li> <li>Temporal and geographic flexibility</li> </ul>	÷	Can cover many topics		
Temporal and geographic flexibility	÷	Easy to reach specialized audiences and hard-to-reach segments of the population		
	•	Temporal and geographic flexibility		

## 6.3 Mobile Phone Research

Mobile phone research is used for a number of purposes, both qualitative and quantitative. It can also be accomplished using different methods. Firstly, to conduct text message interviews, where the interviewer can send questions by text message at pre-determined times over the course of days or weeks. Participants answer by text or they have the option to call in their answers. This technique is used for getting at feelings and emotional reactions. For example, it can be used to obtain the reactions of a target audience to communications messages.

Alternatively, mobile phones can be used to conduct Web-based mobile surveys/interviews or app-based surveys/interviews, both of which require participants to use smart phones. When designing these types of surveys or interview questions, researchers must remember that smart phone users will have small screens and limited input methods. Also, application-based platforms tend to be device-specific. Participants may be in situations where distractions abound, so attention spans are short. This technique is useful as it leverages the growing number of people using smart phones, particularly those in cell-phone-only households, and younger demographic categories who may otherwise be difficult to reach. That said, mobile phone research suffers from significant coverage error as not all members of the general population have mobile phones (let alone smart phones).

Mobile phone research is particularly useful for diary studies. One of the weaknesses of traditional diaries is that participants can forget to make an entry or log an activity, or by the time they are able to make an entry, the immediacy of the activity has been lost. Mobile diaries overcome these weaknesses, allowing participants to provide feedback in a quick and convenient way. Diary entries can be made through text message, Internet platforms, applications, or voice recordings. Participants can also be reminded to make entries throughout the day, at different times.

Quick Response (QR) codes (barcodes that can be read by camera phones) can be used to reach mobile phone users and encourage them to participate in research studies. The encoded information can be text, a URL, or other media. The QR code, when captured from any form of print media, can bring a participant directly to an online survey. Particularly when combined with an incentive, a QR code can encourage mobile phone users to participate in research (mobile or otherwise).

#### **Examples**

The following are **examples** of mobile phone research of a quantitative and qualitative nature:

**Quantitative:** Researchers want to obtain feedback from users of an organization's Web site that is known to be accessed from mobile devices regularly (e.g., smart phones, tablets). A link to a survey is posted on the Web site, and the survey is designed to be easy to complete on a small screen (aesthetically and technically). The target audience is prompted to complete the survey when they visit the Web site on their mobile device. Alternatively, (or in addition) QR codes containing a URL to the survey are placed on regular print communications that are sent to clients of the organization (e.g., newsletters), with information on the survey and encouragement to participate.

**Qualitative:** Researchers have recruited a group of participants suffering from a similar health condition in order to explore how this condition affects their daily lives. Participants are sent four or five relevant text messages throughout the day, asking them about how they are feeling and why. Where necessary, researchers send text messages to probe their responses. Alternatively, participants are asked to use an application to log their experiences throughout the day. The resulting data are evaluated by researchers. The findings are relevant to the specific group of participants only; they cannot be generalized to the larger population of Canadians suffering some of the same health condition.

#### **Table 17: Mobile Phone Research**

Re	elative Advantages	Po	Potential Disadvantages	
ł	Nearly all mobile phones have text capability, and smart phones are Web- enabled and support applications	:	Small screens and limited input methods Issues around device-specific applications	
•	May be more efficient in increasing the representation of the types of respondents who rely more on mobile phones (e.g., younger respondents that may be missed with landline-only surveys)	•	Competition for attention, limited to shorter questionnaires Coverage error, exclusion of some segments of the general population	
ł	Participants can provide feedback quickly and conveniently			
ł	Reminders and prompts can be sent throughout the day at desired times			

## 6.4 Dial Testing/Media Testing Research

Traditional dial testing is conducted using a "dial" that participants use to indicate their engagement or to indicate that they have lost interest in the media they have been asked to watch. There are now options for conducting dial testing, sometimes referred to as media testing, online. Online dial testing permits a greater number of participants with a wider geographic spread, who are able to observe the media of interest in a more natural setting. Online dial testing can be integrated into an online survey, where participants may indicate a wider range of reaction types (e.g., sad, excited, frightened). With online media testing, researchers must be careful, however, not to ask respondents to track too many reaction types or the task can become too burdensome.

Dial testing is used in either a quantitative or qualitative fashion to gather feedback on media and communications. For example, researchers can ask participants to use this method to give real-time feedback on a government agency's advertisement. It is useful for gaining an understanding of which points in the advertisement were engaging and which parts were boring or unappealing for an audience. Dial testing can be combined with survey questionnaires (or open-ended questions in a focus group setting) asking participants to elaborate on their perceptions or establish other metrics.

It is the approach used by the researcher to understand the results of dial testing that distinguishes its use as qualitative or quantitative. For example, the following is qualitative in scope: dial testing that is incorporated into a focus group with participants asked to elaborate on which parts of an advertisement they found interesting or less engaging with a view to exploring why they feel as they do. When dial testing is incorporated into an online survey and the overall results of the dial testing are measured numerically, the research is considered quantitative in nature.

#### **Examples**

The following are **examples** of dial testing research of a quantitative and qualitative nature:

**Quantitative:** The objective of a study is to discover what Canadians think about a video presentation developed to celebrate an iconic Canadian institution. The presentation is accessible from the institution's Web site. An online, intercept survey is conducted with visitors of the institution's Web site. In addition to exploring issues related to awareness and perceptions of the institution, survey respondents are invited to watch the video presentation and dial testing is used to measure and quantify responses to/impressions of the presentation.

**Qualitative:** To illustrate how fine the line between quantitative and qualitative research is when using dial testing to collect data, consider the quantitative example above. This time, however, the main component of the research is focus groups with Canadians across the country designed to explore in a qualitative sense impressions of the iconic Canadian institution. During the focus groups, participants are asked to watch the celebratory video presentation and dial testing is used to better understand reactions to the video. Reactions of focus group participants are then probed to explore what underlies their reaction.

Relative Advantages		Potential Disadvantages		
•	Can measure where in an advertisement or other media the audience is engaged vs. disengaged	<ul> <li>Limited number of reactions that can be tracked at once.</li> </ul>		
÷,	Can be incorporated into other research techniques			
Ì	Online media testing platforms can ask respondents to indicate not just interest or disengagement, but about greater range of reactions			

## Table 18: Dial Testing/Media Testing Research

## 6.5 Ethnographic/Observational Research

Ethnographic/observational research involves observing research participants in their natural environments, going about activities in their day-to-day lives. Because of its reliance on observation, **ethnographic research is not considered POR** – *at least not on its own*. A POR project, however, can contain multiple data collection methods (i.e., mixed mode research) and ethnography is one approach that can be used to complement and/or enhance POR elements within a study. For example, ethnographic research might be a starting place for research on a particular subject from which telephone and/or in-person interviews are then used to dig deeper into the subject of study.

Observational research is useful for studying how people use products and services, and what improvements in these products or services might be beneficial. It does <u>not</u> rely on self-reporting, but

rather observing participants as they engage in relevant activities in context. Researchers should be aware that participants may alter their behaviour as a result of being observed, and only those experienced in this technique should conduct the research meeting/visit so as to minimize this effect.

Additional techniques can be used in conjunction with observational research to add depth to the findings. Examples include assigning homework before or after meeting with participants, or incorporating diaries or journals, including those with multi-media, such as photos or video that capture activities or events. Unlike the other techniques described in this chapter, ethnographic/observational research cannot be quantitative – this type of data collection is always qualitative in nature.

### Table 19: Ethnographic/Observational Research

Relative Advantages		Potential Disadvantages	
•	Can observe participants in their natural environments	•	Participants may alter their behaviour as a result of being observed
•	Avoids problems of self-reporting		
•	Can be combined with other techniques to add depth		

## 7 Qualitative or Quantitative?

The following scenarios illustrate why choosing the appropriate research approach is important to the success of your project, and outline the considerations that should guide that choice.

## 7.1 Scenario 1 – Qualitative Research Is More Appropriate

Hypothetically, Health Canada is planning revisions to the *Eating Well with Canada's Food Guide*. The department needs to understand Canadians' knowledge and attitudes with respect to nutrition and healthy eating. Qualitative research is required to aid in understanding what Canadians mean by healthy eating (e.g., Eating a balanced diet? Eating with moderation? Avoiding fast foods? Eating recommended serving sizes?) and enable in-depth investigation of their views on nutrition. The findings from this research may be all that is required or could be used to contribute to the development of subsequent quantitative research.

## 7.2 Scenario 2 – Quantitative Research Is More Appropriate

Suppose that Environment Canada wants to develop a communications and outreach campaign geared toward motivating Canadians to recycle and re-use. Considerable qualitative research has already been conducted, so the department has a fairly good understanding of some of the top drivers of behavioural change. However, the communications and outreach campaign needs to focus on one or two main messages only, messages that will appeal to the greatest proportion of Canadians. A telephone survey is required to obtain representative data from Canadians to determine which messages will have the biggest impact on which target audiences. The findings will be used by Environment Canada to develop concepts/themes for the communications and outreach campaign.

## 7.3 Scenario 3 – Mixed-Mode Is Most Appropriate

Assume the Government of Canada is co-ordinating intergovernmental efforts by provincial governments to reduce violence among youth. To this end, the government is planning an advertising campaign to reduce the incidence of bullying among youth aged 12 to 19. As a first step in the development of the campaign, a survey among a representative sample of youth is conducted to obtain baseline data. Such data could include awareness of bullying tactics, incidence/frequency of bullying events, attitudes of youth toward this behaviour, and other themes, against which the effectiveness of the campaign in reducing bullying will eventually be evaluated.

Using findings from this baseline survey, themes and creative concepts are developed for use in the campaign, and then tested using a qualitative approach. Final executions of the most promising creative concepts are then assessed with a representative sample of 200 youth in individual or paired interviews.

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At the end of the campaign, a quantitative post-test is conducted with a random sample of youth to measure recall, awareness, message comprehension, relevance, impact and credibility of the advertisements. The results of the post-test are then compared to the baseline data to determine if the advertising has influenced attitudes, increased knowledge and awareness, or changed behaviour.

There are a number of best practices associated with the conduct of public opinion research. Please consult <u>Appendix 2: Best Practices</u> of the *Public Opinion Research in the Government of Canada: Orientation Guide.* 

⋗

## **8** Appendices

## 8.1 Appendix A: Government of Canada Procedures for Acquiring Public Opinion Research

Following are the key steps to acquire public opinion research (POR) in the Government of Canada.

- **1.** Project Planning: Need for research determined.
- **2.** Determine information needs.
- **3.** Contact departmental POR coordinator.
- 4. Check existing information sources.
- 5. Determine whether your project is defined as POR. The departmental POR coordinator will consult the Public Opinion Research Directorate (PORD) if assistance is required in defining your research needs or in determining whether the project falls under the definition of POR as per the *Communications Policy of the Government of Canada*.
- 6. If the project is defined as POR, determine:
  - a. Whether the project will require a contract, or
  - b. Whether the project will be conducted in-house by public servants (non-contracted). If so, please refer to Annex B (Criteria for Identifying Significant Non-contracted Public Opinion Research) of the *Policy Notice: Amendments to the Procedures for Planning and Contracting Public Opinion Research* to determine whether a non-contracted project is considered "significant."
- **7.** Prepare a POR plan describing all POR where a contract is involved and all significant noncontracted POR. (Note: a <u>Public Opinion Research Annual Planning Template</u> is available for this purpose on the <u>PORD site</u>.
- **8.** Consult with and send the POR plan to the Communications and Consultations Secretariat (CCS) of the Privy Council Office (PCO). The plan should include both the contracted and significant non-contracted POR, as well as any updates to the plan.
- **9.** Submit for approval the POR plan to the Minister or the person designated as the authority in Schedule VI (Part III, Column II) of the *Financial Administration Act* once PCO has been consulted.
- **10**. Send a copy of the plan approved by the Minister or other designated authority to CCS and PORD.

#### The following steps apply when a contract is involved

#### The Contracting Stage

- **11.** Provide PORD with a detailed Statement of Work for review and feedback prior to contacting a supplier about a particular project.
- 12. Following PORD's review of the Statement of Work, assess contracting options (e.g., competitive process, sole-source contract, use of PWGSC Standing Offers for POR). With the exception of competitive requirements for which a request for proposal (RFP) is posted on MERX (Canada's electronic tendering service), you can select and request a proposal from a supplier in the research industry for requirements below \$25K (with applicable taxes) or a supplier on PWGSC's standing offers. For more information on the competitive process, please contact your PORD advisor.

- **13.** Review the proposal to ensure that it conforms to the Statement of Work, and where applicable, to the *Standards for the Conduct of Government of Canada Public Opinion Research*. Send the supplier's proposal to PORD for review and feedback (with the exception of competitive processes).
- **14.** Upon request, provide PORD with any required additional information.
- **15.** Provide PORD with a completed <u>Requisition for Goods and Services and Construction Form</u> (*PWGSC-TPSGC 9200 form*).
- **16.** Obtain a Public Opinion Research Registration number from PORD.
- **17.** Once the Communications Procurement Directorate (CPD) has issued a contract, work can commence.

#### The Research Process Stage

- **18.** Provide PORD with draft research instruments (e.g., questionnaires, screeners/discussion guides) at least five (5) working days before beginning data collection begins. Upon request, send research instruments to CCS of PCO.
- **19.** If there is a need to adjust the scope of the contracted POR project, including any of the requirements outlined in the supplier's proposal such as a change to the methodology (e.g., questionnaire length or field dates), or any change that could affect the cost of the project, please consult with PORD as soon as possible and prior to moving forward with any modifications.
- **20.** Ensure that the supplier has completed all the work outlined in the contract and that the supplier has submitted all deliverables indicated in the contract. The client department or agency is responsible for the quality of work.

#### The Report Stage

- **21.** Approve final report.
- 22. Submit copies of the final report and separate electronic copies of the English and French executive summaries to Library and Archives Canada (LAC) (PORD and Library of Parliament will automatically be copied), within six (6) months of the completion of data collection, a report conforming to the <u>Public Opinion Research Contract Regulations</u> and the <u>Procedures for Planning and Contracting Public Opinion Research</u>. Only reports for contracted POR are required to be submitted.

#### The Invoicing Stage

**23.** Pay invoices.

The following appendices of the *Public Opinion Research in the Government of Canada: Orientation Guide* will provide additional information:

- > <u>Appendix 1: Helpful Links</u>
- > <u>Appendix 2: Best Practices</u>
- > <u>Appendix 3: Example of a Statement of work</u>

To obtain more information, please consult the publication, <u>Public Opinion Research in the Government of</u> <u>Canada: Orientation Guide</u>, or refer to the <u>list of advisors</u>.

## 8.2 Appendix B: Steps in the Research Process

#### **Problem Definition**

- > Establish research purpose
- > Determine research objectives
- > Review existing research/conduct secondary analysis
- > Decide on research parameters: research population(s), scope, budget, timetable

#### **Research Plan**

- > Select the research approach
- > Design the data collection instruments
- > Design the analysis plan

#### **Data Collection**

- > Design the sample and select research subjects
- > Train interviewers/brief moderators
- > Collect the data

#### **Data Analysis**

- > Process the data
- > Tabulate the data/code open-ended questions
- > Analyze the data

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## 8.3 Appendix C: Glossary of Related Key Research Terms

A

#### Audience

Used to refer to the population of interest or target population for a survey. Also referred to as the population or universe.

С

#### **Call-backs**

Repeated attempts to reach the selected respondent in a telephone survey.

#### **CATI** (computer-assisted telephone interviewing)

CATI is a computerized system intended to assist interviewers in performing basic data collection tasks. It allows for the integration of a questionnaire and responses from a telephone survey, coding and some edits into a single process.

#### **Cellular phone**

Wireless telephone that has voice capability.

#### Census

A census involves obtaining information from each member of a target population group, as opposed to a survey of a sample of that group.

#### **Closed-ended question**

A question that includes a pre-determined list of possible answers that are given to the respondent. The respondent is required to choose among the given answers.

#### Coding

The process of allocating answers to questions in response to categories and assigning a descriptive and numerical code to each category, the latter so that a computer can analyze the data.

#### **Confidence interval**

A confidence interval is an <u>interval estimate</u> of a <u>population parameter</u> and is used to indicate the reliability of an estimate.

#### **Coverage error**

Coverage error arises from the failure to give some units in the target population any chance of being included in the survey (non-coverage), from including ineligible units in the survey, or from having some target population units appear several times in the list of target population units (over coverage).

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#### **Custom survey**

A survey commissioned by a single client, as opposed to shared-cost surveys, such as omnibus or syndicated surveys.

#### D

#### **Data collection**

One of the key elements of the research process, this involves obtaining information from the research population.

#### **Data tables**

Computer output resulting from data processing that provides the tabulated answers given by all respondents to a survey.

#### **Dial testing**

Dial testing, also referred to as media testing or dial-a-metre response, is a research technique that gathers moment-by-moment response to a piece of media (often an advertisement). Traditionally, it involves respondents using a dial in gradations towards either end of a scale as they are exposed to the media. This technique has been transferred to an online medium where different platforms support approximations or substations for the traditional dial.

#### E

#### **ESOMAR**

ESOMAR is an organization for encouraging, advancing and elevating market research worldwide. With members from over 120 countries, ESOMAR's aim is to promote the value of market and opinion research in illuminating real issues and bringing about effective decision-making.

#### Estimate

This is used to refer to survey data (e.g., 80% of respondents were satisfied with service quality). Surveys are conducted to estimate things, such as attitudes, behaviours, or knowledge, for the target audience or group of interest being investigated for the study.

#### Ethnography

Ethnography has its roots in the discipline of anthropology and comprises the scientific study of societies and cultures. In public opinion research, it is used to examine cultural trends, attitudes, and lifestyle factors that contribute to decision making and behaviour. It is an observational technique that takes research into the environments of those that it studies.

#### **Focus group**

A group of individuals selected according to specific criteria to participate in a discussion about a particular topic introduced by a discussion leader called a moderator. Participants are encouraged to offer their opinions about the topic of interest and to react to comments from others in the group. For in-person focus groups, 10 to 12 participants are usually recruited to ensure that eight to ten show up and take part in the actual group.

### G

F

#### Gamification

Refers to the integration of game mechanics or elements into research design in order to maximize response rates and engagement levels.

#### **GCpedia**

GCpedia is an internal wiki used by the Government of Canada for collaboration and knowledge sharing. GCpedia is only accessible via the Government of Canada network and contributors must be on a computer connected to the government network to be able to access it. GCpedia has been used as a platform to take, publish, and distribute meeting minutes, to create project status dashboards, to collaboratively author interdepartmental papers, to brainstorm, and to create wiki-based briefing books.

#### H

#### **Heterogeneity**

Heterogeneity of participant groups refers to the degree of diversity of characteristics that can be accommodated amongst the participants within the same group. This could include demographic diversity (e.g., age, gender) or behavioural diversity (e.g., whether someone is a user or not a user of a product or service). In some cases, group heterogeneity cannot be easily accommodated if it will adversely affect respondent openness, group dynamics, or respondent comfort.

#### Homogeneity

Homogeneity refers to the similarity of discussion group participants in terms of demographic (e.g., age, gender) or behavioural (e.g., whether someone is a user or not a user of a product or service) characteristics.

#### I

#### Incentive

Monetary or non-monetary compensation used to motivate potential respondents to participate in a survey.

#### **Incidence rate**

The proportion of the target population that meets the survey eligibility requirements (e.g., proportion of disabled Canadians among the full population for a survey of disabled persons).

#### **Interviewer bias**

Refers to the influence of the interviewer on the interviewee, which can affect how the interviewee responds. Interviewer bias detracts from the validity of a study.

#### **Item nonresponse**

Item nonresponse occurs when a respondent does not provide a response to a survey question. Nonresponse can bias samples by making their composition substantively different from the target population.

#### L

#### Low-incidence segments

Refers to hard-to-reach segments of the population because they are defined by narrow specifications and so represent a small portion of the full population.

#### М

#### **Margin of error**

Statistical formula that allows for the calculation of the level of precision of survey results. The margin of error accounts only for errors associated with sampling.

#### Marketing Research and Intelligence Association (MRIA)

The Marketing Research and Intelligence Association (MRIA) is a Canadian not-for-profit association representing all aspects of the market intelligence and survey research industry, including social research, competitive intelligence, data mining, insight, and knowledge management.

#### **Measurement error**

Error that results from the difference between the information that is being sought and the information actually obtained by the measurement process. The error may be caused by a number of factors, such as respondents' inability or unwillingness to respond, poor question wording, inappropriate question sequence, interviewer bias or failure to record responses accurately.

#### **Mobile phone**

Wireless telephone that has voice and potentially visual/text/graphic capability.

#### Moderator

The qualitative researcher who leads the focus group discussions.

## N

#### Nonresponse bias

Nonresponse bias occurs when survey nonresponse results in differences between respondents and nonrespondents.

#### **Non-response error**

Error due to the difference between individuals who respond to the survey and those individuals who were selected for the sample and who do not respond or who refuse to be surveyed.

#### 0

#### **Omnibus Survey**

Refers to a survey where questions on a variety of subject matter are included together, typically paid for and created by multiple research clients. Clients can include a question or several questions on an omnibus survey, reducing the cost for each client individually.

#### **Online Bulletin Board Focus Group**

A large number of participants, often 15 or more, who access a virtual facility through a user name and password; participants log on at their convenience over the course of several days, reply to a few questions posted by the moderator each day, and interact virtually with other respondents.

#### **Online Chat Focus Group**

A small number of participants, usually from five to eight, access a virtual facility through a user name and password. Participants log on at the same time as the moderator and the "discussion" is in real time, as questions posted one at a time by the moderator are discussed more or less simultaneously among participants.

#### **Online Community**

An online community is:

- > A group of members who agree to interact with you and with each other;
- > Bound by common interests (products, services, job function, industry affiliation);
- > A group of people who want to interact with and learn from others with similar interests;
- > A ongoing and informed source of feedback.
- An online community comes from two channels private and public and can be either part of a panel or a community.

#### **Open-ended** question

A question that allows respondents to reply in their own words rather than choose among predefined response categories.

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#### Р

#### Panel

A panel is a group of individuals recruited through different means (random digit dialing [RDD], opt in, snowballing, etc.) to become members. Panel members come from different segments of the population and they are selected according to criteria such as: age, sex, ethnicity, income, level of education, interests, work status and field, language, etc. Panels are generally refreshed on a regular basis to avoid the same respondents participating again and again. The recruitment of participants from a panel can be done regionally, by key demographic or on specific criteria consisting of the panel. Not all panels are reflective of the Canadian population and can support confidence intervals and margin of errors.

#### **Participant**

Refers to individuals from whom information is sought in qualitative research. Typically, it is the term used to designate a member of a focus group.

#### **Participation Rate**

Participation rate is the number of individuals who have completed your survey divided by the number of individuals you have contacted.

#### **Population**

The target audience or group of interest to be investigated for the study (e.g., all Canadians, 18 years and older; men between the ages of 18-30 years who listen to the radio). Also referred to as the universe.

#### **Post-test**

Refers to the evaluation of the effectiveness of an advertisement or other communication product after it has been launched to its intended audience.

#### Pretest

- a. In quantitative research, a pretest is a trial run to assess how well a questionnaire flows, is understood by respondents, and whether it elicits the required information. It may also be used to assess how long the questionnaire takes to administer, as well as the incidence rate of the target population.
- b. In qualitative research, a pretest usually refers to the evaluation of advertisements or other communication products still in development or before they are released to the public.

#### **Primary research**

Refers to projects where new data are collected to meet the specific research objectives of a current research problem.

#### **Probing**

In market research, this refers to asking follow-up questions to explore a particular answer or comment so that the researcher better understands the answer.

### Q

#### **Qualitative research**

This refers to information obtained about some members of a target population through unstructured or semistructured procedures, such as discussions, observations or interviews. No projections of results to the target population can be made from this type of research.

#### **Quantitative research**

This refers to information obtained about some or all members of a target population through structured procedures, such as a census or a survey, allowing conclusions to be made for the total target population.

#### Quick Response (QR) Code

A quick response code is a kind of barcode with quick readability and large storage capacity that can be read, or scanned, by a camera phone. It can be used to recruit participants with camera phones to participate in research.

#### R

#### RDD

Random digit dialling or RDD is a method of probability sampling that relies on the random selection of telephone numbers from working telephone exchanges that, among other things, enables unlisted telephone numbers to be contacted.

#### **Recruiters**

Firms that recruit individuals to take part in qualitative research.

#### Respondent

Refers to individuals from whom information is sought in quantitative research (i.e., the person chosen for the survey interview).

#### **Response rate**

Response rate is the number of individuals who have answered your survey divided by the number of individuals in your sample. There are several ways to calculate this, but the *Standards for the Conduct of Government of Canada Public Opinion Research*, advocate use of the MRIA's empirical calculation for all telephone surveys.

**Research Techniques** 

#### **Sample frame**

S

This is used like a 'map' to guide the research in terms of who is 'eligible' to participate. From this, a sample list would be developed that constitutes the source from which survey respondents will be drawn.

#### **Sample survey**

The process of collecting information from a small proportion of the target population as opposed to collecting information from the total target population (i.e., census).

#### Sampling

The method of selecting members of the target population for inclusion into the subset of individuals (sample) who will be contacted for an interview or to receive a questionnaire. Sampling methods can be probabilistic or non-probabilistic:

**Probability sampling** refers to a sample where every unit in the population has an equal chance of being selected. Examples of probability samples are simple random, systematic, stratified, cluster and multi-stage.

**Non-probability sampling** refers to a sample in which units of the population are selected by factors other than random chance; therefore, some elements of the population may have no chance of selection. Examples of non-probability samples are convenience, judgmental, snowball and quota.

#### **Sampling error**

Error that results when information is obtained from only some, and not all, members of the target population.

#### **Secondary research**

Refers to the search and analysis of existing information that may be relevant but has not been collected specifically for the present research purpose.

#### Segment

In public opinion research, segments refer to subgroups of the target population that share some characteristic relevant to the research purpose. Subgroups can be segmented by age, income, education, occupation, lifestyle, media habits, product use, etc.

#### **Self-selection**

Self-selection occurs when using a self-administered method of data collection (e.g., mail, online) that relies on respondents selecting (or not selecting) themselves to complete the survey. This has the potential to introduce bias resulting from survey nonresponse.

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#### **Skip pattern**

Skip pattern is a term used to refer to the structure of a survey in which subsequent questions asked of respondents vary depending upon earlier answers (e.g., question asked only of those who indicated that they used a certain program/service).

#### **Smart phone**

Wireless telephone that has voice and visual/text/media capability. Not only can smart phones be used to send messages to survey respondents, but the respondents themselves can use them to make notes, take photographs and/or videos of themselves, and access online surveys and information.

#### Social desirability bias

Social desirability bias is an inclination on the part of the respondent to offer responses to questions that will be viewed favorably or correspond with accepted social norms. It compromises the validity of research results.

#### **Social media**

Social media are media for social interaction, using highly-accessible communication techniques. Social media is the use of Internet-based applications to turn communication exchange into interactive dialogue. Technologies include, to list a few, blogs, picture-sharing, vlogs, wall-postings, email, instant messaging and music-sharing. Many of these social media services can be integrated via social network platforms.

#### **Statistically projectable**

The results of the research are statistically valid and therefore can be generalized to the full population.

#### Survey nonresponse

Survey nonresponse occurs when a potential respondent does not complete a survey. It comprises two groups: people who refuse to participate in the survey (i.e., refusals) and those who cannot be reached during data collection (i.e., non-contacts). Nonresponse can bias samples by making their composition substantively different from the target population.

#### T

#### **Tablet**

A tablet is a mobile computer that utilizes a touch screen. It is larger than a mobile phone but smaller than a laptop or desktop computer.

#### **Target population (also referred to as the universe)**

The population for which the information is required. Note that the target population may be different than the survey population (i.e., the population actually covered by the survey).

### **Transcripts**

Written records of the audio tape recordings of focus group discussions or personal interviews to facilitate report writing.

### $\pmb{W}$

### Weighting

Statistical adjustment that redistributes the survey responses to match the target population through the application of a set of 'weights' derived from the distribution of the target population.

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## 9 Contact Us

## **Public Opinion Research Directorate**

For more information on the resources available from the Public Opinion Research Directorate (PORD), please visit the PORD site at: <u>http://publiservice.tpsgc-pwgsc.gc.ca/rop-por</u>. For more specific questions, information, or services, please contact PORD by email at <u>DGSIOpinionPublique.ISBPublicOpinion@tpsgc-pwgsc.gc.ca</u> or by telephone at 613-995-9837.

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