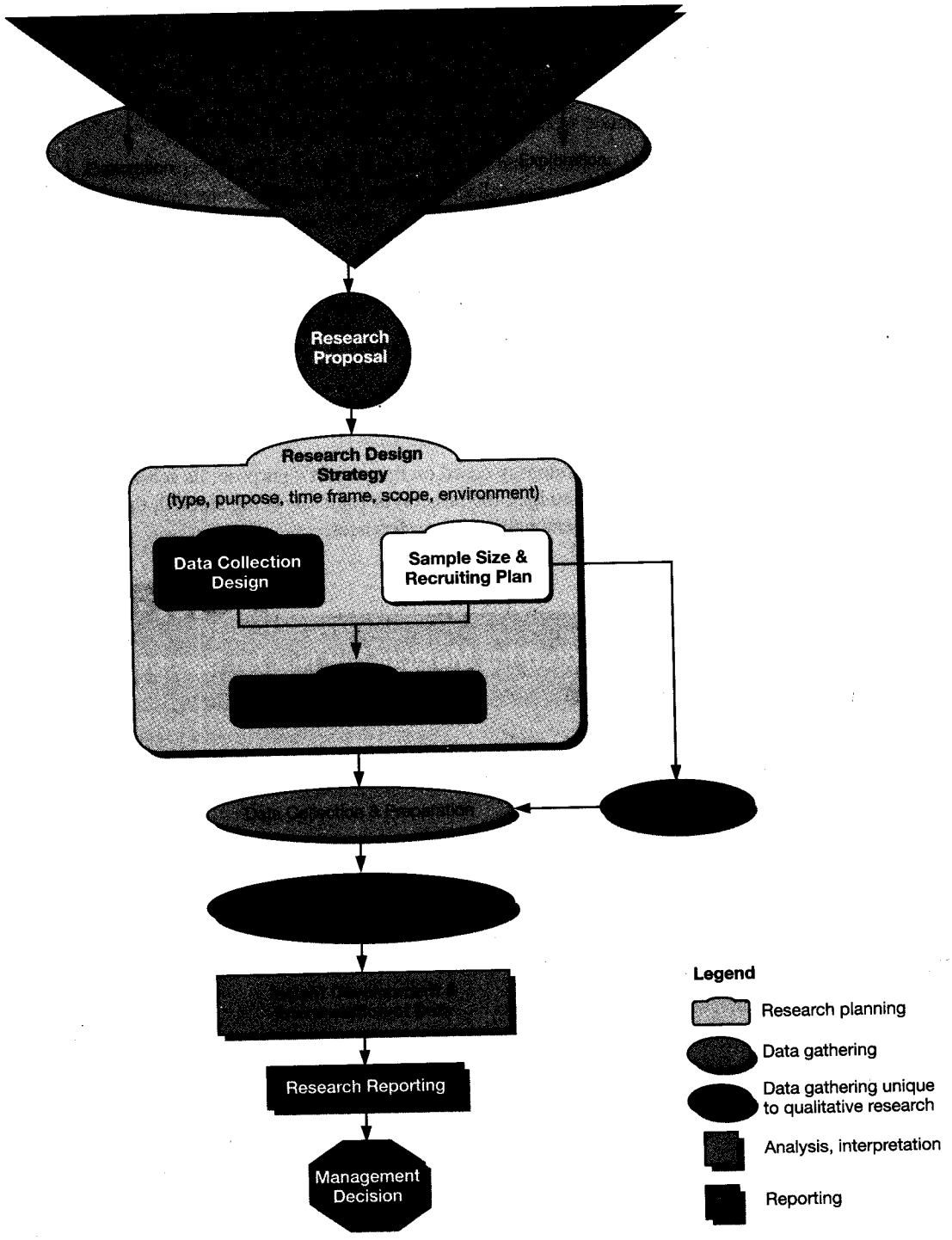
> **Exhibit 8-3** Qualitative Research and the Research Process



- Having the participants keep detailed diaries of behavior and perceptions (e.g., a record of their step-by-step experience preparing a meal using a particular product).
- Having the participants draw a picture of an experience (e.g., what they felt like when they last shopped in a particular store).
- Having the participants write a dialog of a hypothetical experience (e.g., how a conversation between the participant and a sales associate would progress when a complaint was not resolved).[8]

Pretasking is rarely used in observation studies and is considered a major source of error in quantitative studies.

In quantitative research unless a researcher is collecting his or her own data, interviewers or data collectors are rarely involved in the data interpretation or analysis stages. While data collectors contribute to the accuracy of data preparation, their input is rarely, if ever, sought in the development of data interpretations. In qualitative studies, due to the higher level of involvement of both the sponsor and the interviewer/data collector, these parties in the process are often debriefed or interviewed, with their insight adding richness to the interpretation of the data. Exhibit 8-4 provides an example of research question formation for a qualitative project.

> Qualitative Research Methodologies

The researcher chooses a qualitative methodology based on the project's purpose; its schedule, including the speed with which insights are needed; its budget; the issue(s) or topics(s) being studied; the types of participants needed; and the researcher's skill, personality, and preferences.

>snapshot

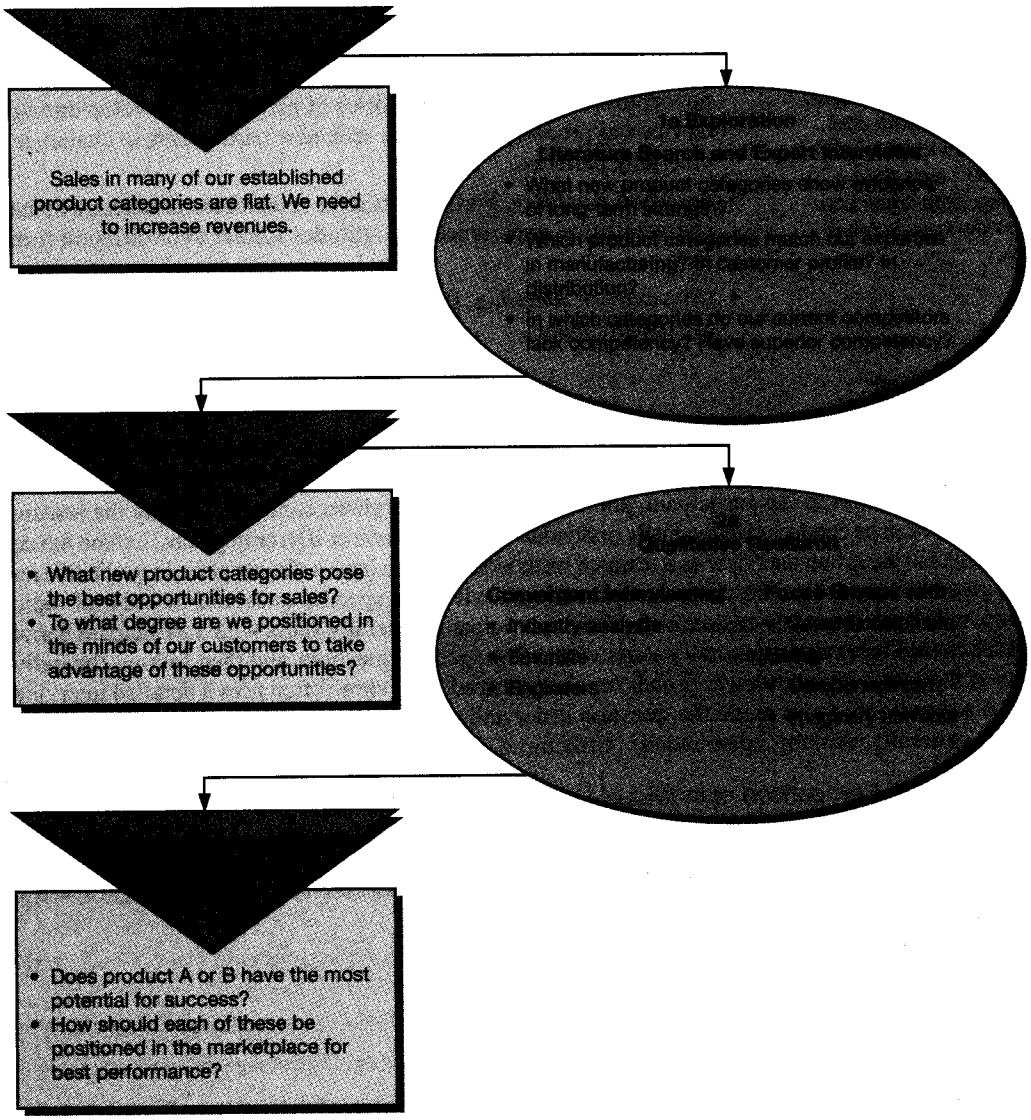
Hamilton Beach: Right Blend(er) for Mexico, but Not for Europe

Hamilton Beach/Proctor Silex (HB/PS) is a small-kitchen-appliance powerhouse in the United States. HB/PS sold one in every four such appliances in the United States, and more than 40 million appliances last year, so a global marketing strategy seemed a logical extension. But focus groups told the company differently. In Mexico, focus groups confirmed that the brand was considered quality and that the criteria American consumers used to select an appliance would be mirrored by the Mexicans. But the story was very different in Europe. There, focus groups revealed that HB/PS's lack of brand awareness wouldn't be nearly as much of a problem as its "clunky," "sturdy" designs. Europeans wanted aesthetically pleasing shapes and color in the appliances they chose for their homes, not the "professional," "institutional," or "large-capacity" products that Americans were buying.

BGIGlobal, part of SYNOVATE, the ninth-largest research firm in the world, coordinated the focus groups in Europe. Product displays similar to those found in European retailers encouraged arriving participants to explore the products that would later be discussed and dissected. During the group interview, participants were encouraged to provide a detailed narrative of their last purchase within the small-kitchen-appliance category. HB/PS needed to understand the criteria driving the process and where decisions took place. The discussion guide driving the focus groups in both countries was similar. But in Europe, the first group reinforced for David Israel, HB/PS's international marketing manager, the value of the focus group methodology—its flexibility. As participants raised each new, startling issue, notes began flowing to the moderator, encouraging participants to travel down paths that the discussion guide hadn't anticipated. The focus groups helped HB/PS understand that it wasn't ready for the European market—at least not until its product designers redefined the product lines.

www.bgiglobal.com; www.hamiltonbeach.com

> **Exhibit 8-4** Formulating the Qualitative Research Question



Sampling

Sample sizes for qualitative research vary by technique but are generally small. A study might include just two or three focus groups or a few dozen individual depth interviews. However unusual, one AT&T study, conducted to develop its 800 Reasons ad campaign for using AT&T long-distance service, used thousands of structured interviews in dozens of cities over several weeks. These interviews provided numerous reasons why businesses used the AT&T 800 service, and each of these "reasons" became the focus of a television and/or magazine ad in the multi-ad campaign.[9]

Qualitative research involves **nonprobability sampling**—where little attempt is made to generate a representative sample. Several types of nonprobability sampling are common:

The general sampling guideline for qualitative research: Keep sampling as long as your breadth and depth of knowledge of the issue under study are expanding; stop when you gain no new knowledge or insights.

- *Purposive sampling.* Researchers choose participants arbitrarily for their unique characteristics or their experiences, attitudes, or perceptions; as conceptual or theoretical categories of participants develop during the interviewing process, researchers seek new participants to challenge emerging patterns.
- *Snowball sampling.* Participants refer researchers to others who have characteristics, experiences, or attitudes similar to or different from their own.
- *Convenience sampling.* Researchers select any readily available individuals as participants.

Interviews

The **interview** is the primary data collection technique for gathering data in qualitative methodologies. Interviews vary based on the number of people involved during the interview, the level of structure, the proximity of the interviewer to the participant, and the number of interviews conducted during the research.

An interview can be conducted individually (individual depth interview, or IDI) or in groups. Exhibit 8-5 compares the individual and the group interview as a research methodology. Both have a distinct place in qualitative research.

The researcher chooses either an **unstructured interview** (no specific questions or order of topics to be discussed, with each interview customized to each participant; generally starts with a participant narrative) or a **semistructured interview** (generally starts with a few specific questions and then follows the individual's tangents of thought with interviewer probes) or a **structured interview** (often uses a detailed interview guide similar to a questionnaire to guide the question order and the specific way the questions are asked, but the questions generally remain open-ended). Structured interviews permit more direct comparability of

> Exhibit 8-5 A Comparison of Individual Depth Interviews and Group Interviews

Individual Interview	Group Interview
Research Objective	
• Explore life of individual in depth	• Orient the researcher to a field of inquiry and the language of the field
• Create case histories through repeated interviews over time	• Explore a range of attitudes, opinions, and behaviors
• Test a survey	• Observe a process of consensus and disagreement
	• Add contextual detail to quantitative findings
Participants	
• Time-pressed participants or those difficult to recruit (e.g., elite or high-status participants)	• Participants whose backgrounds are similar or not so dissimilar as to generate conflict or discomfort
• Participants with sufficient language skills (e.g., those older than seven)	• Participants who can articulate their ideas
• Participants whose distinctions would inhibit participation	• Participants who offer a range of positions on issues

responses; question variability has been eliminated and thus answer variability is assumed to be real. Also, in the structured interview, the interviewer's neutrality has been maintained.

Most qualitative research relies on the unstructured or semistructured interview. The unstructured and semistructured interviews used in qualitative research are distinct from the structured interview in several ways. They:

- Rely on developing a dialog between interviewer and participant.
- Require more interviewer creativity.
- Use the skill of the interviewer to extract more and a greater variety of data.
- Use interviewer experience and skill to achieve greater clarity and elaboration of answers.

Many interviews are conducted face-to-face, with the obvious benefit of being able to observe and record nonverbal as well as verbal behavior. An interview, however, can be conducted by phone or online. Phone and online interviews offer the opportunity to conduct more interviews within the same time frame and draw participants from a wider geographic area. These approaches also save the travel expenses of moving trained interviewers to participants, as well as the travel fees associated with bringing participants to a neutral site. Using interviewers who are fresher and more comfortable in conducting an interview—often from their home or office—should increase the quality of the interview. Also, depending on the group from which participants are drawn, there may be insufficient numbers to conduct group interviews in any one market, forcing the use of phone or online techniques.

Projective Techniques

Because researchers are often looking for hidden or suppressed meanings, **projective techniques** can be used within the interview structures. Some of these techniques include:[10]

- **Word or picture association** — Participants are asked to match images, experiences, emotions, products and services, even people and places, to whatever is being studied. *"Tell me what you think of when you think of Kellogg's Special K cereal."*
- **Sentence completion** — Participants are asked to complete a sentence. *"Complete this sentence: People who buy over the Internet . . ."*
- **Cartoons or empty balloons** — Participants are asked to write the dialog for a cartoonlike picture. *"What will the customer comment when she sees the salesperson approaching her in the new-car showroom."*
- **Thematic Apperception Test** — Participants are confronted with a picture (usually a photograph or drawing) and asked to describe how the person in the picture feels and thinks.
- **Component sorts** — Participants are presented with flash cards containing component features and asked to create new combinations.
- **Sensory sorts** — Participants are presented with scents, textures, and sounds, usually verbalized on cards, and asked to arrange them by one or more criteria.
- **Laddering or benefit chain** — Participants are asked to link functional features to their physical and psychological benefits, both real and ideal.

• **Imagination exercises**	Participants are asked to relate the properties of one thing/person/brand to another. *"If Crest toothpaste were a college, what type of college would it be?"*
• **Imaginary universe**	Participants are asked to assume that the brand and its users populate an entire universe; they then describe the features of this new world.
• **Visitor from another planet**	Participants are asked to assume that they are aliens and are confronting the product for the first time; they then describe their reactions, questions, and attitudes about purchase or retrial.
• **Personification**	Participants are asked to imagine inanimate objects with the traits, characteristics and features, and personalities of humans. *"If brand X were a person, what type of person would brand X be?"*
• **Authority figure**	Participants are asked to imagine that the brand or product is an authority figure and to describe the attributes of the figure.
• **Ambiguities and paradoxes**	Participants are asked to imagine a brand as something else (e.g., a Tide dog food or Marlboro cereal), describing its attributes and position.
• **Semantic mapping**	Participants are presented with a four-quadrant map where different variables anchor the two different axes; they then spatially place brands, product components, or organizations within the four quadrants.
• **Brand mapping**	Participants are presented with different brands and asked to talk about their perceptions, usually in relation to several criteria. They may also be asked to spatially place each brand on one or more semantic maps.

Paper-based exercises often draw out less verbal members of a group. Projective techniques can dissipate tension caused by sensitive topics or can be useful when a change of focus in the interview is imminent. A well-trained interviewer is required if the research demands that one or more of these techniques be included within an individual depth interview or group interview. These techniques are also time-consuming to apply, lengthening the time frame of the individual or group interview. They also lengthen the data analysis time.

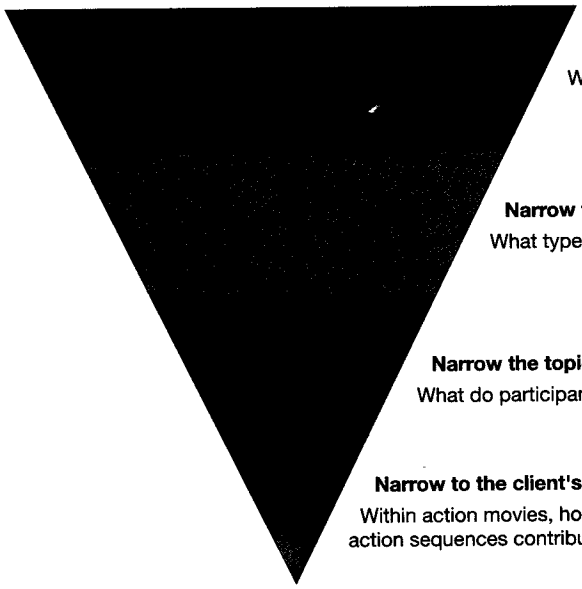
Interviewer Qualifications

Interviewing requires a trained interviewer (often called a **moderator** for group interviews) or the skills gained from experience. These skills include making respondents comfortable, probing for detail without making the respondent feel harassed, remaining neutral while encouraging the participant to talk openly, listening carefully, following a participant's train of thought, and extracting insights from hours of detailed descriptive dialogue. Skilled interviewers learn to use their personal similarities with *or* differences from their interviewee to mine for information; similarities are used to convey sympathy and understanding, while differences are used to demonstrate eagerness to understand and empathize.

In quantitative research we are more interested in the data collector's following a prescribed procedure. Whereas in qualitative research the individual conducting the interview needs a fuller understanding of the dilemma and how the insights will be used. So a skilled interviewer must be a "quick-study," someone who can grasp an understanding of an issue without necessarily having prior experience with the product or service or being a technical expert.

The interviewer needs to be able to extract information from a willing participant who often is not consciously aware that he or she possesses the information desired. The actual interviewer is usually responsible

> Exhibit 8-6 The Interview Question Hierarchy



Source: This graphic was adapted from one developed by Judith Langer and published in *The Mirrored Window: Focus Groups from a Moderator's Point of View* (Ithaca, NY: Paramount Market Publishing, 2001), www.paramountbooks.com.

for generating the **interview** or **discussion guide,** the list of topics to be discussed (unstructured interview) or the questions to be asked (semistructured) and in what order (structured). In building this guide, many interviewers employ a hierarchical questioning structure, depicted in Exhibit 8-6 above. Broader questions start the interview, designed to put participants at ease and give them a sense that they have a lot to contribute, followed by increasingly more specific questions to draw out detail.

The interviewer is often responsible for generating the screening questions used to recruit participants for the qualitative research. This preinterview uses a device similar to a questionnaire, called a **recruitment screener.** Exhibit 8-7 provides the various elements necessary for a comprehensive recruitment screener. Each question is designed to reassure the researcher that the person who has the necessary information and experiences, as well as the social and language skills to relate the desired information, is invited to participate. Data gathered during the recruitment process are incorporated into the data analysis phase of the research, as recruitment data provide additional context for participants' expressions.

In general, then, the interviewer is a consultant with wide-ranging responsibilities:[11]

- Recommends the topics and questions.
- Controls the interview, but also plans—and may manage—the locations and facilities for the study.
- Proposes the criteria for drawing the sample participants.
- Writes the recruitment screener and may recruit participants.
- Develops the various pretasking exercises.
- Prepares any research tools (e.g., picture sorts or written exercises) to be used during the interview.
- Supervises the transcription process.
- Helps analyze the data and draw insights.
- Writes or directs the writing of the client report, including extracting video clips for the oral report.

> Exhibit 8-7 What Is Included in a Recruitment Screener?

For best effect, qualitative research takes creative, articulate, expressive individuals. Finding appropriate participants is the task of the researcher. Here are some common elements addressed at this phase of the research.

Type of Information	Description
Heading	Include project name, date of interviews, identity of screener.
Identity information	Include name of prospect, address, phone, e-mail.
Security questions	Reveal possible participant overparticipation or conflicts of interest; similar information on spouse or immediate family members.
Product/brand usage/purchase questions	Establish frequency of use, purchase, loyalty, etc.
Attitudinal and knowledge questions	Look for breadth in perceptions, attitudes, opinions, knowledge.
Offer/termination	Invite participation, discuss compensation and pretasking, set up interview, or indicate that the person is not right for the current study but may be right for future studies.

Individual Depth Interviews

An **individual depth interview (IDI)** is an interaction between an individual interviewer and a single participant. Individual depth interviews generally take between 20 minutes (telephone interviews) and 2 hours (prescheduled, face-to-face interviews) to complete, depending on the issues or topics of interest and the contact method used. Some techniques such as *life histories* may take as long as five hours. Participants are usually paid to share their insights and ideas; $1 per minute is the budgeting rule of thumb for general consumers, but much higher rates are demanded by participants representing highly skilled professionals.[12]

Interviewees are often provided with advance materials via mail, fax, or the Internet. Recently, advances in technology have encouraged the use of detailed visual and auditory aids during interviews, creating the methodology known as **computer-assisted personal interviews (CAPIs).** CAPIs often use a structured or semistructured individual depth interview.

Several unstructured individual depth interviews are common in marketing research, including oral histories, cultural interviews, life histories, critical incident technique, and sequential (or chronologic) interviewing. Exhibit 8-8 describes these techniques and provides examples.

> Exhibit 8-8 Types of Research Using IDIs

Types	How Research Is Conducted	How Research Is Used
Oral History (*narrative*)	Ask participants to relate their personal experiences and feelings related to historical events or past behavior.	To develop products, for example, books. [*September 11, 2001: Stories from 55 Broad Street* by Eddie T. Deerfield and Thomas T. Noland Jr. (editors); *One Nation: America Remembers September 11, 2001* by Rudolph W. Giuliani; *An Album of Memories: Personal Histories from the Greatest Generation* by Tom Brokaw.]
[redacted]	[redacted]	[redacted]
Life Histories	Extract from a single participant memories and experiences from childhood to the present day regarding a product or service category, brand, or firm. Participants are encouraged to share how the significant people in their lives talked about or used the product or brand, how their tastes or preferences have changed over their lives with respect to the product or brand, and how their perceptions and preferences have been altered by their various life experiences.	To determine advertising development and positioning. (E.g., Frosted Flakes and Tony the Tiger—ad spots where adults feel they must appear in disguise because they eat a "child's cereal.")
[redacted]	[redacted]	[redacted]
Convergent Interviewing (*convergent and divergent interviewing*)	Experts serve as participants in a sequential series of IDIs; researcher refines the questions with each interview in order to converge on the central issues or themes in a topic area.	To develop appropriate questions for all types of research (in exploratory research).
[redacted]	[redacted]	[redacted]
Ethnography	Interviewer and participant collaborate in a field-setting participant observation and unstructured interview.	To determine product redesign, advertising development, positioning, distribution selection.
[redacted]	[redacted]	[redacted]

Source: This exhibit was developed from Hy Mariampolski, *Qualitative Market Research: A Comprehensive Guide* (Thousand Oaks, CA: Sage Publications, 2001), p. 53; David Carson, Audrey Gilmore, Chad Perry, and Kjell Gronhaug, *Qualitative Marketing Research* (Thousand Oaks, CA: Sage Publications, 2001), pp. 84–89 and 152–157; Anselm Strauss and Julia Corbin, *Basics of Qualitative Research: Techniques and Procedure for Producing Grounded Theory* (Thousand Oaks, CA: Sage Publications, 1998).

>snapshot

When Samuel Palmisano became chairman and chief executive of IBM, industry analysts didn't expect this 30-year IBM loyalist to rock the boat. But he started a research program that resulted in a very aggressive reorganization. The IBM strategy isn't quite so novel—create a strong connection between IBM and its customer—as is the extensive research behind it. Palmisano wanted his employees to talk to customers about their most troubling business problems. Rather than send the sales force to do that job, IBM formed teams: the sales executive in charge of the corporate account, a representative from the services division, a person from the software unit, and someone from the IBM research labs. These teams became known as "four in a box." But what each team was asked to do was think outside the box: figure out how IBM might help customers solve their pesky problems. And what resulted from all those customer interviews? A reorganization of the $88 billion company into 12 industry groups (e.g., banking, insurance, automobiles, utilities, consumer packaged goods, telecommunications, life sciences, etc.) rather than its previous three divisions (software, services, and research). The shift is under way to make IBM an executive-level consulting firm rather than a technology services company. The reorganization has IBM's labs, which used to focus on making machines calculate faster and more efficiently, refocusing on modeling patterns of human behavior to help solve business problems.

www.ibm.com

Managing the Individual Depth Interview

Participants for individual depth interviews are usually chosen not because their opinions are representative of the dominant opinion but because their experiences and attitudes will reflect the full scope of the issue under study. Participants for individual depth interviews also need to be verbally articulate, in order to provide the interviewer with the richness of desired detail. Primary Insights Inc. developed its *CUE* methodology to help marketers understand the performance cues that consumers use to judge a product. It uses purposive sampling to recruit individuals "with a specific interest in and aptitude for analytical thinking and discovering how things work." *CUE* combines in-home product use with a diary preexercise, followed by individual depth interviews that extract what the participant saw, felt, heard, smelled, and sensed when interacting with the product. What evolves is a hierarchy of sensory cues that clients may use when modifying products to improve customer satisfaction.[13]

Individual depth interviews are usually recorded (audio and/or video) and transcribed to provide the researcher with the rich detail that the methodology is used for. Interviewers are also themselves debriefed to get their personal reactions to participant attitudes, insights, and the quality of the interview. Individual depth interviews use extensive amounts of interviewer time, in both conducting interviews and evaluating them, as well as facility time when premises are occupied for interviews. And while some respondents feel more comfortable discussing sensitive topics or sharing their own observations, behaviors, and attitudes with a single person, others are more forthcoming in group situations.

Group Interviews

A **group interview** is a data collection method using a single interviewer with more than one research participant. Group interviews can be described by the group's size or its composition.

Group interviews vary widely in size: *dyads* (2 people), *triads* (3 people), *mini-groups* (2 to 6 people), small groups (focus groups—6 to 10 people—unarguably the most well known of group interview techniques), or *supergroups* (up to 20 people). The smaller groups are usually used when the overall population from which the participants are drawn is small, when the topic or concept list is extensive or technical, or

Check your text CD for "Qualitative Research with Children."

when the research calls for greater intimacy. Dyads also are used when the special nature of a friendship or other relationship (e.g., spouses, superior-subordinate, siblings) is needed to stimulate frank discussion on a sensitive topic. Dyads and triads are also used frequently with young children who have lower levels of articulation or more limited attention spans and are thus more difficult to control in large groups. A supergroup is used when a wide range of ideas is needed in a short period of time and when the researcher is willing to sacrifice a significant amount of participant interaction for speed.

In terms of composition, groups can be **heterogeneous** (consisting of different individuals; variety of opinions, backgrounds, actions) or **homogeneous** (consisting of similar individuals; commonality of opinions, backgrounds, actions). Groups also can comprise **experts** (individuals exceptionally knowledgeable about the issues to be discussed) or **nonexperts** (those who have at least some desired information but at an unknown level).

Driven by the belief that the data extracted will be richer because of the interaction, group interviews are one of the few research techniques in which the participants are encouraged to interact. However, given time constraints, group interviews permit spending only limited time extracting detail from each participant.[14] This problem is magnified when a group interview is structured to cover numerous questions or topics.

Another drawback of the group interview is the increased difficulty recruiting, arranging, and coordinating group discussions. But this aggravation—which can be subcontracted to a specialist research supplier—is deemed a small price to pay for the insights that often are revealed by group interaction.

Interviewers are tested by the challenge of managing the group's conversation while avoiding interjecting themselves into the group's process. It is also the moderator's job to control the extrovert or dominant personality and ensure meaningful contributions from all others, including the most introverted or private thinkers. When control is not maintained, some members' opinions may be suppressed and valuable insights lost. Sometimes an individual will be more honest with a neutral interviewer than with a group of peers. One example is a group of small-business owners being unwilling to divulge competitive strengths and weaknesses. A skilled researcher can anticipate which topics are more likely to obtain good results with an individual or a group interview.

A group interview's structure and process include moderator interaction with the group and probing of the group to clarify responses. As a result, the moderator may create bias in the results by sending verbal and nonverbal signals that some responses are more favorable than others. The moderator might also direct discussion down paths that are least likely to help the client. Only training, and subsequent experience, can overcome these potential weaknesses of group interviews.

The skilled researcher helps the sponsor determine an appropriate number of group interviews to conduct. The number of groups is determined by:

- The *scope* of the issue(s) being studied: The broader the issue(s), the more groups needed.
- The number of *distinct market segments* of interest: The larger the number and the greater the distinctions, the more groups needed.
- The *number of new ideas or insights* desired: The larger the number, the more groups needed.
- The *level of detail* of information: The greater the level of detail, the more groups needed.
- The *level of geographic or ethnic distinctions* in attitudes or behavior: The greater these influences, the more groups needed.
- The *homogeneity of the groups:* The less homogeneity, the more groups needed.

The general rule is: Keep conducting group interviews until no new insights are gained. Often a limited number of groups will suffice, or sometimes the number might grow to 8 or even 12.

It is often preferable, depending on the topic, to run separate group interviews for different subsets of the target population. For example, a study on nutritional advice may begin with separate consumer and physician groups to determine the best ways to provide the advice. This type of homogeneous grouping tends to promote more intense discussion and freer interaction.[15]

Researchers caution against forming groups solely on demographic descriptors, favoring "natural"' groups (like families, co-workers, church members, etc.) where the participants share an affinity base.[16] For customer groups, however, consideration should be given to such factors as gender, ethnicity, employment status, and education, as culture is a primary determinant of perception. In a recent exploratory study of discount shoppers, the attitudes about the economy and personal finances expressed by East Coast respondents and West Coast respondents diverged widely. The research sponsor was able to use information from group interviews to build a marketing strategy tailored to each geographic area.[17]

Regardless of group composition, it is the moderator who sets the tone of the group. Homogenous groups often discover their similarities early and get along well. But with heterogeneous groups, the moderator must provide the ice-breaker activities that get the participants interacting with each other. As with individual depth interviews, the moderator is responsible for developing the recruitment screener and the group discussion guide. Exhibit 8-9 summarizes the facilitators and inhibitors of individual participation in group interviews.

A closer look at one of the best known of group interviews, the focus group, may clarify these distinctions.

Focus Groups

The term focus group *was first coined by R. K. Merton in his 1956 book,* The Focused Interview.

> You'll find a sample focus group discussion guide in the text CD.

The **focus group,** introduced in Chapter 6, is a panel of people (typically made up of 6 to 10 participants), led by a trained moderator, who meet for 90 minutes to 2 hours. The facilitator or moderator uses group dynamics principles to focus or guide the group in an exchange of ideas, feelings, and experiences on a specific topic.

Focus groups are often unique in research due to the research sponsor's involvement in the process. Most facilities permit the sponsor to observe the group and its dynamics in real time, drawing his or her own insights from the conversations and nonverbal signals he or she observes. Many facilities also allow the client to supply the moderator with new topics or questions that are generated by those observing in real time. This option is generally not available in an individual depth interview, other group interviews, or survey research.

Focus groups typically last about two hours but may run from one to three hours. Facilities usually provide for the group to be isolated from distractions. Thus the famous, or infamous, mirrored window allows those who are interested to observe the group while they avoid interfering with the group dynamics. Some facilities allow for product preparation and testing, as well as other creative exercises.

Fewer and lengthier focus groups are becoming common. As sessions become longer, activities are needed to bring out deeper feelings, knowledge, and motivations. Besides the creativity sessions that employ projective techniques or involve the participants in writing or drawing sessions, or creating visual compilations, other common activities within focus groups include:[18]

- *Free association.* "What words or phrases come to mind when you think of X?"
- *Picture sort.* Participants sort brand labels or carefully selected images related to brand personality on participant-selected criteria.
- *Photo sort.* Photographs of people are given to the group members, who are then asked: "Which of these people would . . . ?" or "Which of these people would not . . . ?"
- *Role play.* Two or more members of the group are asked to respond to questions from the vantage point of their personal or assigned role.

> Exhibit 8-9 Factors Influencing Participant Contributions in Group Interviews

Positive/Facilitators	
Recognition/ego enhancement	Moderator's expressed appreciation for participant contributions that contribute to issue understanding; participant's open agreement with other participant comments
Validation	Participant's need to have his or her feelings, attitudes, or ideas validated
Personal growth	Participant's desire to increase knowledge or understanding through new perspectives; participant's desire for new experiences
Expectations	Participant's accurate understanding of the purpose of the group discussion
Negative/Inhibitors	
Use of abstract terminology	Moderator or participant's use of terminology or unfamiliar jargon
Political correctness	Participant's withholding comments for fear that his or her contributions might be perceived as disrespectful of another's knowledge or opinions
Memory decay	Participant's failure to remember incidents or details of incidents
Inarticulation/rambling accounts	Participant's inability to express ideas quickly or concisely
Reticence	Participant's need to be invited to participate (rather than actively volunteering comments)
Dominating/monopolizing	Participant's attempting to take leadership or the spotlight, thus blocking contributions of others

Focus groups are often used as an exploratory technique but may be a primary methodology. In two such cases, a small college used focus groups to develop a plan to attract more freshmen applications, and a blood center used a focus group to improve blood donations.[19] Focus groups are especially valuable in the following scenarios:[20]

- Obtaining general background about a topic or issue.
- Generating research questions to be explored via quantitative methodologies.
- Interpreting previously obtained quantitative results.

When facing a high-risk decision, researchers rarely rely solely on focus group data, as the sample is too small and often not chosen to be representative.

- Stimulating new ideas for products and programs.
- Highlighting areas of opportunity for specific managers to pursue.
- Diagnosing problems that managers need to address.
- Generating impressions and perceptions of brands and product ideas.
- Generating a level of understanding about influences in the participant's world.

Groups best enable the exploration of surprise information and new ideas. Agendas can be modified as the research team moves on to the next focus group. Even within an existing focus group, an adept facilitator can build on the ideas and insights of previous groups, getting to a greater depth of understanding. However, because they are qualitative devices, with limited sampling accuracy, results from focus groups should not be considered a replacement for quantitative analyses.

In the opening vignette, Sally Arens was involved in conducting and analyzing focus groups for a frozen-food manufacturer. Sally's partner Jason is involved with assessing the CompleteCare service program for MindWriter. For the latter project Jason and Sally could use focus groups involving employees (of the call center and service departments) to determine suggestions for improvements and provide an analysis of proposed improvements. MindWriter may want focus groups with CompleteCare customers (both dissatisfied and satisfied customers but restricted to separate groups) to reveal the scope of attitudes and experiences not documented within complaints.

Other Venues for Focus Group Interviews

While the following venues are most frequently used with focus groups, they can be used with other sizes and types of group interviews.

Telephone Focus Groups In traditional focus groups, participants meet face-to-face, usually in specialized facilities that enable respondents to interact in a comfortable setting while being observed by a sponsoring client. However, often there is a need to reach people that face-to-face groups cannot attract. With modern telephone conferencing facilities, **telephone focus groups** can be particularly effective in the following situations:

- When it is difficult to recruit desired participants—members of elite groups and hard-to-find respondents such as experts, professionals, physician specialists, high-level executives, and store owners.
- When target group members are rare, "low incidence," or widely dispersed geographically—directors of a medical clinic, celebrities, early adopters, and rural practitioners.
- When issues are so sensitive that anonymity is needed but respondents must be from a wide geographic area—people suffering from a contagious disease, people using nonmainstream products, high-income individuals, competitors.
- When you want to conduct only a couple of focus groups but want nationwide representation.

Telephone focus groups are usually shorter than traditional groups, averaging about one hour. Participants could be in their own offices or homes or be brought to a central location with the necessary equipment. Telephone focus groups are usually less expensive than face-to-face focus groups—by up to 40 percent.

In contrast to face-to-face groups, heterogeneous telephone groups can be productive. People in traditional superior-subordinate roles can be mixed as long as they are not from the same city. A telephone focus group is less likely to be effective under the following conditions:

- When participants need to handle a product.
- When an object of discussion cannot be sent through the mail in advance.

>snapshot

Hallmark: Qualitative Research Enriches Sinceramente Hallmark

Hallmark began offering Spanish-language cards in the mid-1980s. The 2000 United States census data show a sharp rise in the number of people who identify themselves as Hispanic, including many households where Spanish is the primary language spoken at home. Today 35.3 million people are included in this group, a 58 percent increase over the 1990 census figure. To better reflect the specific needs of today's Latino consumers, Hallmark enhanced its commitment to the Hispanic market and launched a new brand of culturally relevant greeting cards called *Hallmark en Español* in 1999. In February 2003, Hallmark expanded its commitment by launching *Sinceramente Hallmark*, a line of more than 2,500 cards for everyday occasions and holidays.

Hallmark's early research used online focus groups to create new messages for the line extension. The creative team, which includes Hispanic artists and writers, talked extensively to Hispanic consumers to gain insights into relevant designs and messages. While the extensive line includes year-round products for birthdays, love, weddings, and anniversaries, it also contains cards for special days of celebration, like *Quinceañera* (a special celebration of a girl's 15th birthday) and Dia de los Reyes (a celebration of the arrival of the three wise men in Bethlehem), among others. *Sinceramente Hallmark* includes bilingual cards, combining Spanish and English words—reflecting how many Hispanics speak—as well as digital cards available from the Hallmark Web site. The top five markets for Hispanic card sales are (1) Los Angeles, (2) Miami, (3) Chicago, (4) New York, and (5) San Francisco.

www.hallmark.com

Cover: May God bless you, Quinceañera. Let your light shine before men in such a way that they may see your good works, and glorify your Father who is in heaven. Matthew 5:16 (NASB). Inside: You have the light of the Lord within you . . . the light that can be seen in everything about you . . . And today you begin the radiant life of a lovely woman! Happy Birthday.

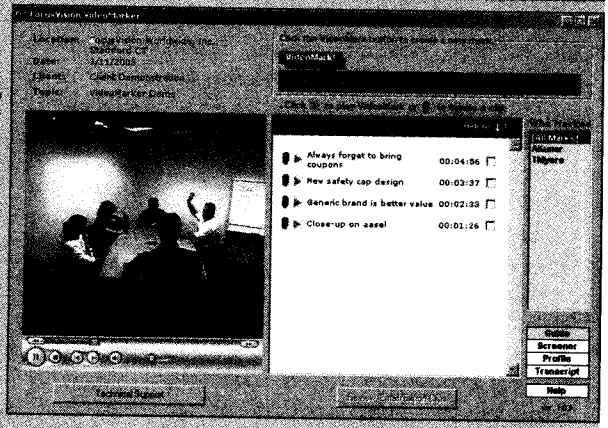
- When sessions will run long.
- When the participants are groups of young children.

Online Focus Groups An emerging technique for exploratory research is to approximate group dynamics using e-mail, Web sites, Usenet newsgroups, or an Internet chat room. It is possible to do "live" voice chats online, reducing or eliminating the cost associated with telephone focus groups. Posting questions to a newsgroup with an interest in the research problem can generate considerable discussion. However, online discussions are not confidential unless they take place on an intranet. Although online forum discussions are unlikely to reflect the average participants, they can be a good way of getting in touch with populations that have special interests (e.g., BMW club members, little-league coaches, or "power computer users"). **Online focus groups** have also proved to be effective with teens and young adults, as well as technically employed segments of the market, those essentially comfortable with computer use. They are especially valuable when a computer-based application, such as software or a game, is the topic of group discussion. The technology permits use of visual images of materials (e.g., ads or product concepts) but retains the barrier between the

>snapshot

FocusVision's VideoMarker

Extracting insights from data, conveying those insights to marketing decision makers, and implementing strategies and tactics based on those insights is a constant challenge for most marketing researchers. "The power to convince decision-makers is often locked in the footage of such interviews," shares Peter Houlahan, president and COO of FocusVision. FocusVision, a company that provides more than 260 facilities worldwide with services for videoconference focus groups and individual depth interviews (IDIs), developed new technology for this purpose: *VideoMarker*. Clients plug in their laptop (in a viewing room or their office via videostreaming technology). While watching the event, when they see footage they want to mark they click on the "VideoMark" button above the video area on their PC. A pop-up textbox allows the client to enter a note. The note is automatically coded with a time mark and the name of its creator. When the event is complete, video of the entire project and all notes are archived for immediate access (by password) and recorded on a CD-ROM that is sent to the client. Researchers can then create video clips to share with colleagues via e-mail, embed in documents or PowerPoint presentations, or group together into highlight reels. "The capability to show actual footage when presenting research results is especially relevant when clients aren't present to watch behind a one-way mirror or when they participate via videoconferencing or videostreaming," offers Houlahan. One pharmaceutical company arranged to interview patients in more than seven hours of focus groups. With *VideoMarker*, researchers captured the highlights, which were then—with the patients' consent—incorporated into IDI research with physicians. "These research highlights were the key motivational tool used to persuade doctors to change how they prescribed the company's product."



www.focusvision.com

group and the moderator. On-line focus groups are a trade-off. What you gain in speed and access you give up in insights extracted from group dynamics, the flexibility to use nonverbal language as a source of data, and the moderator's ability to use physical presence to influence openness and depth of response.

Videoconferencing Focus Groups

Videoconferencing is another technology used with group interviews. Many researchers anticipate growth for this methodology. Like telephone focus groups, videoconferencing enables significant savings. By reducing the travel time for the moderator and the client, coordinating such groups can be accomplished in a shorter time. However, videoconferencing retains the barrier between the moderator and participants, although less so than the telephone focus group. Since large corporations and universities are more likely to have their own internal videoconferencing facilities, most videoconferencing focus groups will tend to occur within this setting, thus reducing the breadth of participants to those who can access these specialized facilities.

> We discuss content analysis in Chapter 16.

Recording, Analyzing, and Reporting Group Interviews

In face-to-face settings, some moderators use large sheets of paper on the wall of the group room to record trends; others use a personal notepad. Facility managers produce both video- and audiotapes to enable a full analysis of the interview. The verbal portion of the group interview is transcribed along with moderator debriefing sessions and added to moderator notes. These are

analyzed across several focus group sessions using **content analysis.** This analytical process provides the research sponsor with a qualitative picture of the respondents' concerns, ideas, attitudes, and feelings. The preliminary profile of the content of a group interview is often done with computer software in content analysis (for example, N6, mentioned in the opening vignette). Such software searches for common phrasing and words, context, and patterns of expression on digitized transcripts.

> Combining Qualitative Methodologies

Case Study[21]

The **case study,** also referred to as the *case history,* is a powerful research methodology that combines individual and (sometimes) group interviews with record analysis and observation. Researchers extract information from company brochures, annual reports, sales receipts, and newspaper and magazine articles, along with direct observation (usually done in the participant's "natural" setting), and combine it with interview data from participants. The objective is to obtain multiple perspectives of a single organization, situation, event, or process at a point in time or over a period of time. Case study methodology—or the written report from such a research project, often called a *case analysis* or *case write-up*—can be used to understand particular marketing processes. For example, one study might evaluate new product development processes for similarities, especially the use of outside consultants, ideation techniques, and computer simulation. Another study might examine in detail the purchaser's response to a marketing stimulus like a display. The results of the research could be used to experiment with modifications of the new product development process or with display selection and placement processes to generate higher-value transactions. The research problem is usually a how and why problem, resulting in a descriptive or explanatory study.

Researchers select the specific organizations or situations to profile because these examples or subjects offer critical, extreme, or unusual cases. Researchers most often choose multiple subjects, rather than a single subject, to study because of the opportunity for cross-case analysis. In studying multiple subjects, a deeper understanding of the subject emerges. When multiple units are chosen, it is because they offer similar results for predictable reasons (literal replication) or contrary results for predictable reasons (theoretical replication). While theoretical sampling seems to be common, a minimum of 4 cases with a maximum of 15 seems to be favored.

In the case study, interview participants are invited to tell the story of their experience, with those chosen representing different levels within the same organization or different perspectives of the same situation or process to permit depth of perspective. The flexibility of the case study approach and the emphasis on understanding the context of the subject being studied allow for a richness of understanding sometimes labeled *thick description.*

During analysis, a single case analysis is always performed before any cross-case analysis is conducted. The emphasis is on what differences occur, why, and with what effect. Prescriptive inferences about best practices are concluded after completing case studies on several organizations or situations and are speculative in nature.

Students are quite familiar with studying cases as a means of learning business principles. *In Search of Excellence,* a book by Tom Peters and Robert Waterman, was developed using case study methodology.[22] Other similar studies profiled in books written on Procter & Gamble and Disney have also used this methodology. In the marketing arena, such case studies have examined changes in new product development, sales processes, and promotion processes in the marketing arena.

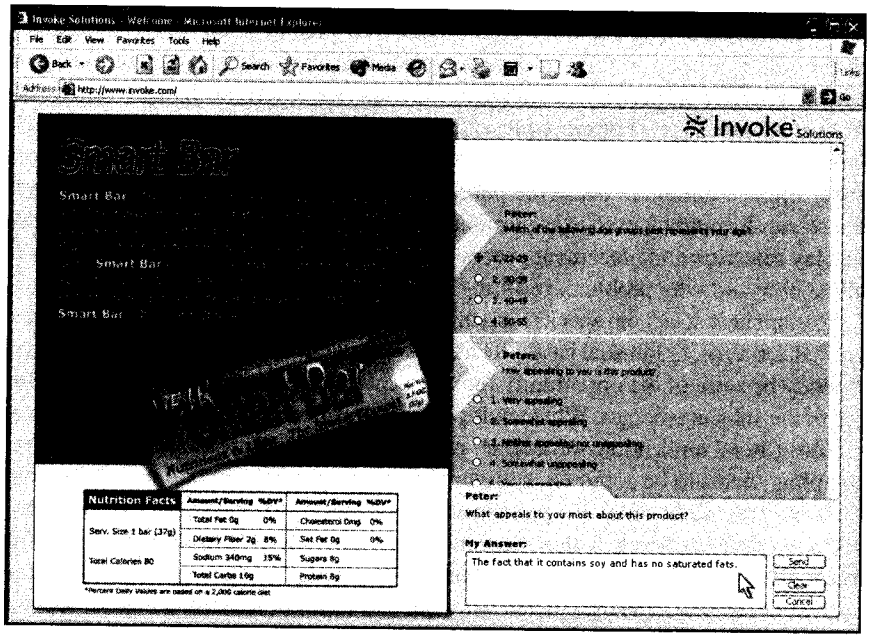
Action Research

Managers conduct research in order to gain insights to make decisions in specific scenarios. **Action research** is designed to address complex, practical problems about which little is known—thus no known heuristics

exist. So the scenario is studied; a corrective action is determined, planned, and implemented; the results of the action are observed and recorded; and the action is assessed as effective or not. The process is repeated until a desired outcome is reached, but along the way much is learned about the processes and about the prescriptive actions being studied. Action researchers investigate the effects of applied solutions. Whatever theories are developed are validated through practical application.[23]

Suppose a restaurant that had never received a customer complaint earns its first challenge by a disgruntled diner. If no general rule existed about how to treat unhappy patrons, the organization could study the situation and come up with alternative actions. It might:

- Ignore the problem. (Its lack of experience would prevent it from knowing that negative word of mouth—negative buzz—would be the likely result.)
- Do whatever is necessary to replace the unsatisfactory meal within the shortest period of time.
- Accept the current circumstance as uncorrectable, apologize to the customer, and remedy the situation by picking up the table's full dining tab and offering the customer a free meal to get him or her back in the restaurant another day.



>picprofile

One option that lets you combine the best of focus group methodology with the power of population-representative survey methodology is Invoke Solutions' *Dynamic Survey*, finalist in the 2004 American Marketing Association EXPLOR Award for technical excellence in online research. With *Dynamic Survey*, a moderator coordinates responses of up to 200 participants in a single live session that lasts between 60 and 90 minutes. Moderators ask prescreened, recruited participants closed questions. These can include not only text (e.g., product concept statements) but also visual (e.g., Web layout options) and full-motion video (e.g., TV ads or animatics) stimuli. Participants respond in ways similar to an online questionnaire. Interspersed with these quantitative measures are opportunities to dig deeply with open-ended questions. These questions are designed to reveal participants' thinking and motivations. Participants keyboard their responses, which are electronically sorted into categories. At the moderator's initiation, participants might see a small, randomly generated sample of other participants' responses and be asked to agree or disagree with these responses. Monitoring sponsors obtain real-time frequency tallies and verbatim feedback, as well as end-of-session transcripts. Within a few days sponsors receive content-analyzed verbatims and detailed statistical analysis of closed-question data, along with Invoke Solutions's recommendations on the hypothesis that drove the research. www.invoke.com

In action research, one of those alternatives would be chosen and implemented, and then the results recorded. Was the customer happy when he or she left? Did the customer return to dine another evening or never return again? Over the next three months, what was the customer's full revenue value? If the customer didn't return, the next time a disgruntled customer voiced dissatisfaction a different action would be chosen, implemented, and then assessed in comparison to the first option's results.

> Merging Qualitative and Quantitative Methodologies

Triangulation is the term used to describe the combining of several qualitative methods or combining qualitative with quantitative methods. Because of the controversy described earlier, qualitative studies may be combined with quantitative ones to increase the perceived quality of the research, especially when a quantitative study follows a qualitative one and provides validation for the qualitative findings. Four strategies for combining methodologies are common in marketing research:[24]

1. Qualitative and quantitative studies can be conducted simultaneously.
2. A qualitative study can be ongoing while multiple waves of quantitative studies are done, measuring changes in behavior and attitudes over time.
3. A qualitative study can precede a quantitative study, and a second qualitative study then might follow the quantitative study, seeking more clarification.
4. A quantitative study can precede a qualitative study.

An example of the first strategy would be the combination of a public opinion poll at the time focus groups are being held to discover ways to sway a particular public's opinion. For the second strategy, we might collect life histories while multiple waves of questionnaires are measuring the response to differing promotional tactics. For the third, we could perform a qualitative study to identify peoples' behaviors and perceptions with respect to furniture shopping processes and interior decorating; then we could use that information to develop a quantitative study to measure the actual frequency of behaviors and attitudes. And, fourth, we might survey people's behavior and attitudes toward a brand and find we need some IDIs to explain findings that are unclear.

Many researchers recognize that qualitative research compensates for the weaknesses of quantitative research and vice versa. These forward thinkers believe that the methodologies complement rather than rival each other.

>summary

1 Qualitative research includes an array of interpretive techniques that seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world. Qualitative research methodologies differ from quantitative methodologies based on the focus of the research; its purpose; researcher involvement; sampling design; sample size; research design, including participant pretasking; data source, type, and preparation; methods of data analysis; level of insights and meaning extracted; research sponsor involvement; speed of the research; and data security. A qualitative methodology may be used alone to address marketing problems or in combination with other qualitative or quantitative methodologies.

2 While qualitative research is being used increasingly because of the methodologies' ability to generate deeper understanding, it still is perceived by many senior-level executives as a stepchild of quantitative data collection. This is primarily due to qualitative research's use of nonprobability sampling, the smaller sample sizes involved, and the nonprojectability of the results to a broader, target population.

3 Qualitative research is designed to tell the researcher how (process) and why (meaning) things happen as

they do. In business planning and decision making, qualitative methodologies are used in market segmentation; advertising creative development; new product development, especially concept testing; sales analysis; sales development; package design; brand development and assessment, especially understanding brand value; positioning; retail design; and understanding various processes, including consumers' decision-making processes. In data analysis, qualitative research uses content analysis of written or recorded materials drawn from personal expressions by participants, behavioral observations, and debriefing of observers, as well as the study of artifacts and trace evidence from the physical environment.

4 Qualitative methodologies used in decision making evolved from techniques used in anthropology, sociology, psychology, linguistics, communication, economics, and semiotics. Common among these strategies are the individual depth interview (IDI) and the group interview, as well as observation, ethnography, action research, and grounded theory. Within group interviews, the focus group is the most widely used methodology.

Qualitative research often uses projective techniques, designed to encourage the participant to reveal in detail deeply suppressed attitudes, opinions, feelings, and experiences. Among these techniques are word or picture association, sentence completion, cartoons or empty balloons, the Thematic Apperception Test, imagination exercises, and sorting exercises. Participant preparation and the actual qualitative sessions themselves often include various creativity sessions and exercises.

>keyterms

>discussionquestions

Terms in Review

1 How does qualitative research differ from quantitative research?

2 How do data from qualitative research differ from data in quantitative research?

3 Why do senior executives feel more comfortable relying on quantitative data than qualitative data? How might a qualitative research company lessen the senior-level executive's skepticism?

4 Distinguish between structured, semistructured, and unstructured interviews.

Making Research Decisions

5 Assume you are a manufacturer of small kitchen electrics, like Hamilton Beach/Proctor Silex, and you want to determine if some innovative designs with unusual shapes and colors developed for the European market could be successfully marketed in the U.S. market. What qualitative research would you recommend, and why?

6 Assume you are Hallmark. (See the Snapshot on page 215.) You have identified four new themes for your Hispanic-targeted cards, *Sinceramente Hallmark.* You now need research to help your card designers create cards that correctly execute those themes. What research should you do now?

Bringing Research to Life

7 What dilemma does HealthPlus face, and why has the company turned to focus groups for insights?

From Concept to Practice

8 Use Exhibit 8-7 to develop the recruitment screener for the research you described in your answer to question 5.

9 Conduct a focus group among students in your class on one of the following topics:

a Your department's problems offering requirements and electives essential for meeting your graduation expectations.

b Entertainment sponsored by your university to bring the community on campus.

>wwwexercise

Brunswick Corporation hired Doyle Research associates to do ideation/imagination activities as it sought to reverse the decline in bowling's popularity and to revitalize bowling alleys as an entertainment venue. Viz-a-Bowling was developed as a result of this research. Visit the Cosmic Bowling Web site. What qualitative techniques would you use to find the next generation of Cosmic Bowling innovations? **http://www.viz-a-ball.com/game/vizagame.htm**

>cases*

NCRCC: Teeing Up a New Strategic Direction

Open Doors: Extending Hospitality to Travelers with Disabilities

Ramada Demonstrates Its *Personal Best*™

State Farm: Dangerous Intersections

USTA: Come Out Swinging

* All cases appear on the text CD; you will find abstracts of these cases in the Case Abstracts section of this text. Video cases are indicated with a video icon.

>chapter 9

Observation Studies

"Trackers are the field researchers of the science of shopping . . . [They] stealthily make their way through stores following shoppers and noting everything they do. Usually, a tracker begins by loitering inconspicuously near a store's entrance, waiting for a shopper to enter, at which point the "track" starts."

Paco Underhill, author, **Why We Buy**

>learningobjectives

After reading this chapter, you should understand . . .

1 When observation studies are most useful.

2 The distinctions between monitoring nonbehavioral and behavioral activities.

3 The strengths of the observation approach in research design.

4 The weaknesses of the observation approach in research design.

5 The three perspectives from which the observer-participant relationship may be viewed in observation studies.

6 The various designs of observation studies.

>bringingresearchtolife

How's the HomeExtravaganza project coming," asks Jason as he sticks his head into Sally Arens's office.

"I finished reviewing the proposals yesterday and selected MarketViews as the subcontractor to do the observation study," responds Sally. "MarketViews will start a week after the checklist is finalized—that's the next step."

"You've obviously determined how the observation study will interact with the larger shopper motivation study we're doing. Fill me in."

"You indicated last week that early survey feedback is that customer confusion related to merchandise location and availability may be a contributing factor to declining repeat visits and sales. The observation study will identify specific types of shopper confusion in the store and the sales associates' response to that confusion."

"I was in the store in Boca just this week for the first time," remarks Jason. "The extensive product display is impressive, but a little overwhelming—and the store is mammoth, as well. I was certainly wishing I'd worn my Nikes!

"Even though HomeExtravaganza uses greeters and its advertising promises lots of helpful associates, the motivation study is logging complaints that the associates aren't as helpful as they need to be," continues Jason.

"MarketViews recommends participant observation to determine just what form associate help is taking."

"I've used MarketViews before with good results."

"I'm meeting with MarketViews' project director this afternoon to rough out the checklist. So I'm taking an early lunch and plan to visit the store one more time," explains Sally. "We want to select specific locations for the interactions to take place and specific behaviors . . . like walking the customer to the aisle location versus giving directions to the location, finding the item in the aisle versus leaving the customer at the aisle entry. And I've come prepared," says Sally as she comes from behind her desk wearing her Reebok running shoes.

"I'll leave you to your own observation study then," remarks Jason.

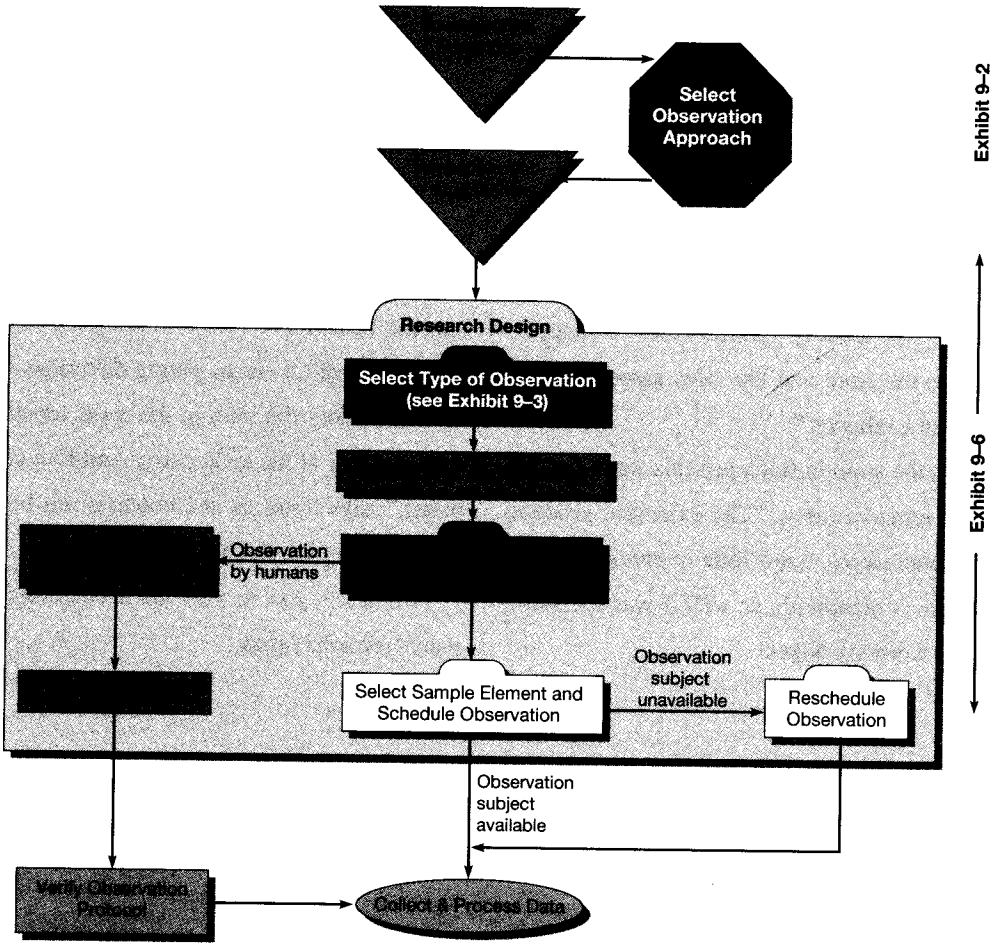
> The Uses of Observation

Much of what we know comes from observation. We notice co-workers' reactions to political intrigue, the sounds of the assembly area, the smell of perfume, the taste of office coffee, the smoothness of the vice president's marble desk, and a host of other stimuli. While such observation may be a basis for knowledge, the collection processes are often haphazard.

Observation qualifies as scientific inquiry when it is conducted specifically to answer a research question, is systematically planned and executed, uses proper controls, and provides a reliable and valid account of what happened. The versatility of observation makes it an indispensable primary source method and a supplement for other methods. Many academics have a limited view of observation, relegating it to a minor technique of field data collection. This ignores its potential for forging business decisions and denies its historic stature as a creative means of obtaining primary data. Exhibit 9-1 depicts the use of observation in the research process.

In Chapter 6, we said that research designs are classified by the *approach* used to gather primary data: We can *observe,* or we can *communicate.* Exhibit 9-2 describes the conditions under which observation is an appropriate method for data collection. It also contrasts those conditions with ones from the communication modes discussed in Chapter 8—interviews—and Chapter 11—surveys (see Exhibit 9-2).

> Exhibit 9-1 Observation and the Research Process



Besides collecting data visually, observation involves listening, reading, smelling, and touching. Behavioral scientists define observation in terms of animal or human behavior, but this too is limiting. As used in this text, **observation** includes the full range of monitoring behavioral and nonbehavioral activities and conditions, which, as shown in Exhibit 9-3, can be classified roughly as follows:

Behavioral Observation:

- Nonverbal analysis
- Linguistic analysis
- Extralinguistic analysis
- Spatial analysis

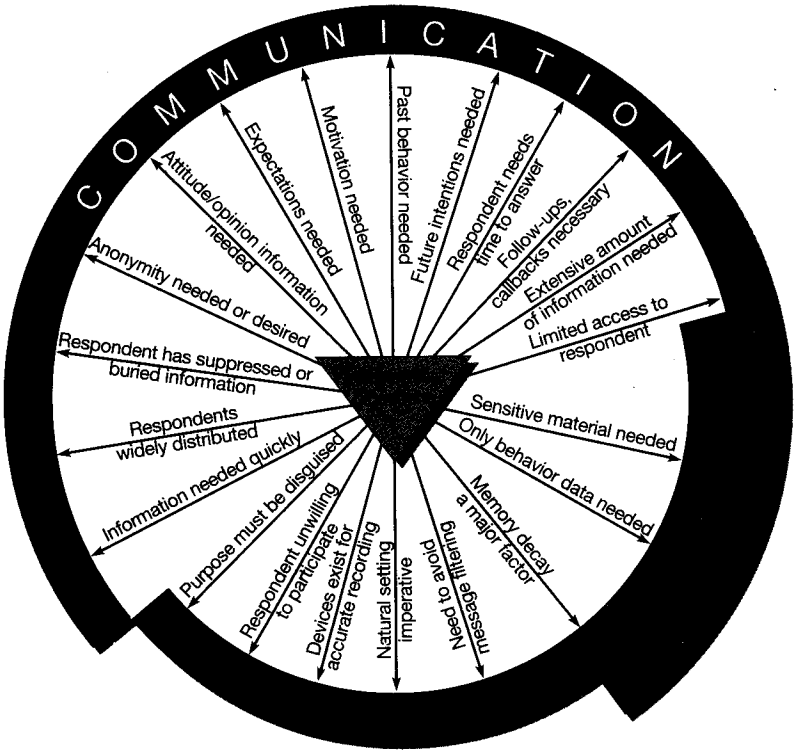
Nonbehavioral Observation

- Record analysis
- Physical condition analysis
- Physical process analysis

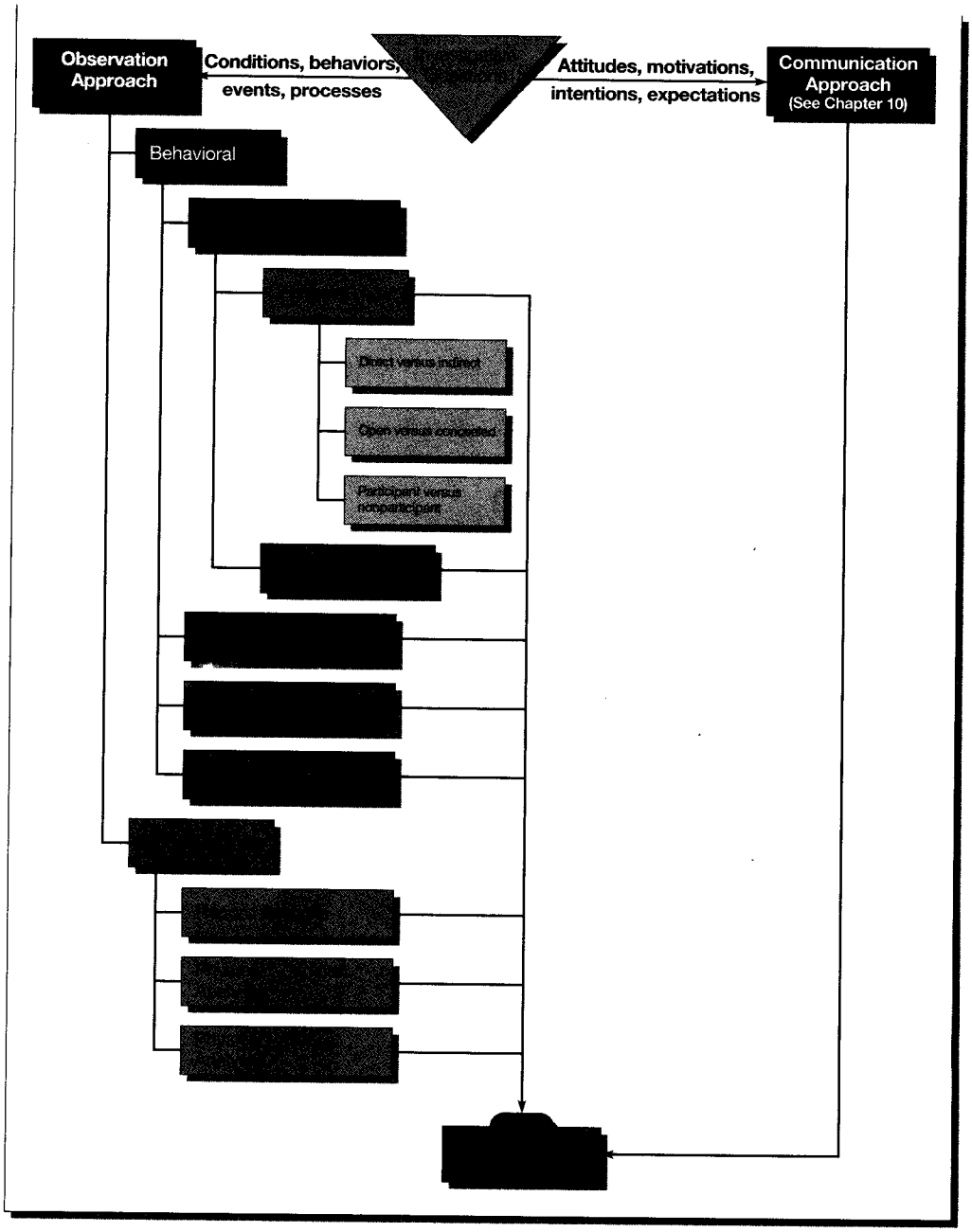
Nonbehavioral Observation

A prevalent form of observation research is **record analysis.** This may involve historical or current records and public or private records. They may be written, printed, sound-recorded, photographed, or videotaped. Historical statistical data are often the only sources used for a study. Analysis of current financial records and economic

> Exhibit 9-2 Selecting the Data Collection Method



> Exhibit 9-3 Selecting an Observation Approach



data also provides a major data source for studies. Other examples of this type of observation are the *content analysis* (described in Chapter 16) of competitive advertising and the analysis of personnel records.

Physical condition analysis is typified by store audits of merchandise availability, studies of plant safety compliance, analysis of inventory conditions, and analysis of financial statements. **Process** or **activity**

>snapshot

Lexus: The Winning Reaction

Observation should be a critical component in research even when it isn't the primary study design. The Team One/Lexus group had this point hammered home when the automaker unveiled its Lexus SC 430 retractable hardtop convertible at the New York Auto Show. Lexus had made exploratory communication studies a standard of its visits to the show, sending its agency team into the crowd to talk cars with luxury buyers clustering in and around competitor's booths. It was from these exploratory conversations the year before that Lexus learned that the primary motivations of the luxury-car segment were changing. One memory of the unveiling that remains crystal clear for account manager Adrian Barrow was the attendees' reaction. "They were drawn to the car, with that jaw-dropping-to-their-knees look." Lexus, revered for its engineering, dependability, and reliability, didn't typically draw the same crowd as Jaguar and Maserati did at the show. So when attendees saw the car, their surprise was evident. "They couldn't get close enough to that car, or touch it or stroke it enough. You didn't need to talk to them, you could see the visceral reaction." That had to be a sweet sight for Team One and Lexus. The automaker's newest car, the one that had been crafted for looks and then performance ("from the skin in"), had just confirmed—before a single conversation was recorded—that it had the opportunity to add the desired passion to the *Pursuit of Perfection.*

www.teamoneadvertising.com; www.lexus.com

analysis includes time/motion studies of manufacturing processes and analysis of traffic flows in a distribution system, paperwork flows in an office, and financial flows in the banking system.

Behavioral Observation

The observational study of persons can be classified into four major categories.[1] **Nonverbal behavior** is the most prevalent of these and includes body movement, motor expressions, and even exchanged glances. At the level of gross body movement, one might study how a salesperson travels a territory. At a fine level, one can study the body movements of a worker assembling a product or time-sample the activity of a department's workforce to discover the share of time each worker spends in various ways. More abstractly, one can study body movement as an indicator of interest or boredom, anger or pleasure in a certain environment. Motor expressions such as facial movements can be observed as a sign of emotional states. Eyeblink rates are studied as indicators of interest in advertising messages. Exchanged glances are of interest in studies of interpersonal behavior.

Linguistic behavior is a second frequently used form of behavior observation. One simple type familiar to most students is the tally of "ahs" or other annoying sounds or words a professor makes or uses during a class. More serious applications are the study of a sales presentation's content or the study of what, how, and how much information is conveyed in a training situation. A third form of linguistic behavior involves interaction processes that occur between two people or in small groups. Bales has proposed one widely used system for classifying such linguistic interactions.[2]

Behavior also may be analyzed on an extralinguistic level. Sometimes **extralinguistic behavior** is as important a means of communication as linguistic behavior. One author has suggested there are four dimensions of extralinguistic activity.[3] They are (1) *vocal,* including pitch, loudness, and timbre; (2) *temporal,* including the rate of speaking, duration of utterance, and rhythm; (3) *interaction,* including the tendencies to interrupt, dominate, or inhibit; and (4) *verbal stylistic,* including vocabulary and pronunciation peculiarities, dialect, and characteristic expressions. These dimensions could add substantial insight to the linguistic content of the interactions between supervisors and subordinates or salespeople and customers.

A fourth type of behavior study involves **spatial relationships,** especially how a person relates physically to others. One form of this study, *proxemics,* concerns how people organize the territory about them and how they

maintain discrete distances between themselves and others. A study of how salespeople physically approach customers and a study of the effects of crowding in a workplace are examples of this type of observation.

Often in a study, the researcher will be interested in two or more of these types of information and will require more than one observer. In these forms of behavior study, it is also important to consider the relationship between observers and participants.

> Evaluation of the Observation Method

Observation is the only method available to gather certain types of information. The study of records, mechanical processes, and young children, as well as other inarticulate participants, falls into this category. Another value of observation is that we can collect the original data at the time they occur. We need not depend on reports by others. Every respondent filters information no matter how well intentioned he or she is. Forgetting occurs, and there are reasons why the respondent may not want to report fully and fairly. Observation overcomes many of these deficiencies of questioning.

A third strength is that we can secure information that most participants would ignore either because it is so common and expected or because it is not seen as relevant. For example, if you are observing buying activity in a store, there may be conditions important to the research study that the shopper does not notice or consider important, such as: What is the weather? What is the day of the week or the time of the day? How heavy is customer traffic? What is the level of promotional activity in competing stores? We can expect to learn only a few of the answers to these questions from most participants.

The fourth advantage of observation is that it alone can capture the whole event as it occurs in its natural environment. Whereas the environment of an experiment may seem contrived to participants, and the number and types of questions limit the range of responses gathered from respondents, observation is less restrictive than most primary collection methods. Also, the limitations on the length of data collection activities imposed by surveys or experiments are relaxed for observation. You may be interested in all the conditions surrounding a confrontation at a bargaining session between union and management representatives. These sessions may extend over time, and any effort to study the unfolding of the negotiation is facilitated by observation. Questioning could seldom provide the insight of observation for many aspects of the negotiation process.

Finally, participants seem to accept an observational intrusion better than they respond to questioning. Observation is less demanding of them and normally has a less biasing effect on their behavior than does questioning. In addition, it is also possible to conduct disguised and unobtrusive observation studies much more easily than disguised questioning.

The observation method has some research limitations. The observer normally must be at the scene of the event when it takes place, yet it is often impossible to predict where and when the event will occur. One way to guard against missing an event is to observe for prolonged periods until it does occur, but this strategy brings up a second disadvantage. Observation is a slow and expensive process that requires either human observers or costly surveillance equipment.

A third limitation of observation is that its most reliable results are restricted to information that can be learned by overt action or surface indicators. To go below the surface, the observer must make inferences. Two observers will probably agree on the nature of various surface events, but the inferences they draw from such data are much more variable.

Fourth, the research environment is more likely suited to subjective assessment and recording of data than to controls and quantification of events. When control is exercised through active intervention by the researchers, their participation may threaten the validity of what is being assessed. Even when sample sizes are small, the observation records can be disproportionately large and difficult to analyze.

Fifth, observation is limited as a way to learn about the past. It is similarly limited as a method by which to learn what is going on in the present at some distant place. It is also difficult to gather information on such

topics as intentions, attitudes, opinions, or preferences. Nevertheless, any consideration of the merits of observation confirms its value when used with care and understanding.

> The Observer-Participant Relationship

Interrogation presents a clear opportunity for interviewer bias. The problem is less pronounced with observation but is still real. The relationship between observer and participant may be viewed from three perspectives:

- Whether the observation is direct or indirect.
- Whether the observer's presence is known or unknown to the participant.
- What role the observer plays.

Directness of Observation

Direct observation occurs when the observer is physically present and personally monitors what takes place. This approach is very flexible because it allows the observer to react to and report subtle aspects of events and behaviors as they occur. He or she is also free to shift places, change the focus of the observation, or concentrate on unexpected events if they occur. A weakness of this approach is that observers' perception circuits may become overloaded as events move quickly, and observers must later try to reconstruct what they were not able to record. Also, observer fatigue, boredom, and distracting events can reduce the accuracy and completeness of observation.

Indirect observation occurs when the recording is done by mechanical, photographic, or electronic means. For example, a special camera that takes one frame every second may be mounted in a department of a large store to study customer and employee movement. Indirect observation is less flexible than direct observation but is also much less biasing and may be less erratic in accuracy. Another advantage of indirect observation is that the permanent record can be reanalyzed to include many different aspects of an event. Electronic recording devices, which have improved in quality and declined in cost, are being used more frequently in observation research.

Concealment

A second factor affecting the observer-participant relationship concerns whether the participant should know of the observer's presence. When the observer is known, there is a risk of atypical activity by the participant. The initial entry of an observer into a situation often upsets the activity patterns of the participants, but this influence usually dissipates quickly, especially when participants are engaged in some absorbing activity or the presence of observers offers no potential threat to the participants' self-interest. The potential bias from participant awareness of observers is always a matter of concern, however.

Observers use **concealment** to shield themselves from the object of their observation. Often, technical means such as one-way mirrors, hidden cameras, or microphones are used. These methods reduce the risk of observer bias but bring up a question of ethics. Hidden observation is a form of spying, and the propriety of this action must be reviewed carefully.

A modified approach involves partial concealment. The presence of the observer is not concealed, but the objectives and participant of interest are. A study of selling methods may be conducted by sending an observer with a salesperson who is making calls on customers. However, the observer's real purpose may be hidden from both the salesperson and the customer (e.g., she may pretend she is analyzing the display and layout characteristics of the stores they are visiting).

>snapshot

Television networks and stations measure audience viewing pat terns to assist in making numerous decisions, among them program continuation or discontinuation, program location on the schedule, and advertising rates. They share this viewer data with advertisers, who then use the data to make network, station, and program selections. Nielson Media Research partially collects its television viewer data for both broadcast and cable with electronic devices labeled "People Meters." The People Meter measures three things: the tuning of the TV set (on, off, time); what channel/station is being tuned; and who is watching (via assigned code buttons). Additionally, households in the 53 largest markets have set-tuning meters that measure and transmit set-tuning data on a daily basis. There are 5,000 households in the national sample and more than 20,000 households in various local samples used to represent more than 102 million TV households in the United States. To supplement the People Meter data, more than 1.6 million households provide written viewership diaries during four measurement periods known as "sweeps." Sweeps, usually two weeks long, occur in November, February, May, and July of each year.

As a result of an increase in media consumption outside the home, since May 2000 Nielsen Media Research and Arbitron have been testing a Portable People Meter (PPM system), pictured here, for media measurement in radio, television, and cable TV. People who accept an invitation to join a panel agree to carry a PPM with them wherever they go throughout the day. Media companies send out an inaudible signal attached to each program, which the PPM

accepts. When a panel member returns home, he or she puts the PPM in a docking station for transmission. The various performance tests will be completed in the fall of 2004.

Participants are known to modify behavior when undisguised and unconcealed observation is used. Adaptations to normal behavior are rarely sustained over time. So Nielsen Media extends the time of observation to reduce this error source. Which part of Nielsen's research design employs observation techniques?

www.nielsenmedia.com; www.arbitron.com

ethical issues Participation

The third observer-participant issue is whether the observer should participate in the situation while observing. A more involved arrangement, **participant observation,** exists when the observer enters the social setting and acts as both an observer and a participant. Sometimes he or she is known as an observer to some or all of the participants; at other times the true role is concealed. While reducing the potential for bias, this again raises an ethical issue. Often participants will not have given their consent and will not have knowledge of or access to the findings. After being deceived and having their privacy invaded, what further damage could come to the participants if the results became public? This issue needs to be addressed when concealment and covert participation are used.

Participant observation makes a dual demand on the observer. Recording can interfere with participation, and participation can interfere with observation. The observer's role may influence the way others act. Because of these problems, participant observation is used less in business research than, say, in anthropology or sociology. It is typically restricted to cases where nonparticipant observation is not practical—for example, a study of the functioning of a traveling auditing team.

>snapshot

The Kelley Blue Book (KBB) Web site, rated the number-one site by Nielsen//NetRatings, is "the most trusted vehicle information resource, providing comprehensive automotive research tools and up-to-date pricing on thousands of used and new vehicles." In October 2002, it served up its one-billionth consumer automotive pricing report. For anyone considering buying a car, it is the must-use Web site.

As with many Web site sponsors, KBB wants to better understand its site visitors: where they click, where and how they move, even what images they click that don't provide hot links. Content analysis when applied to a Web site offers additional behavior measures besides analysis of text of interest. KBB hired NetConversions (NetC) to analyze its Web site. NetConversions employed its *True Usability*™ methodology. For a 48-hour period NetC followed every click and scroll, learning how visitors used the KBB site. One finding revealed that less than 25 percent of visitors scrolled, and they did so only minimally. After studying the path analysis, scrolling analysis, and click density analysis data and using its proprietary Hill Climbing design optimization technology, NetC worked with KBB to develop alternative page design elements, including altered content locations, ad locations, and image hot links. One change was to hot-link the Kelley Blue Book logo, as visitors routinely clicked there in an attempt to return to the Web site's home page. During the testing of these changes, 1 out of every 1,000 visitors saw an altered page design, and again their clicks and scrolls were monitored, confirming the findings of the 48-hour study done earlier. The page design results, when shared with advertisers, increased KBB's ad inventory and ad click-throughs. And page views and advertising impression revenues for the redesigned "New Car Pricing Report" page increased 62 percent.

www.kbb.com; www.netconversions.com

To learn more, read the case on your CD: "NetConversions Influences Kelley Blue Book."

> Conducting an Observation Study

The Type of Study

Observation is found in almost all research studies, at least at the exploratory stage. Such data collection is known as **simple observation.** Its practice is not standardized, as one would expect, because of the discovery nature of exploratory research. The decision to use observation as the major data collection method may be made as early as the moment the researcher moves from research questions to investigative questions. The latter specify the outcomes of the study—the specific questions the researcher must answer with collected data. If the study is to be something other than exploratory, **systematic observation** employs standardized procedures, trained observers, schedules for recording, and other devices for the observer that mirror the scientific procedures of other primary data methods. Systematic studies vary in the emphasis placed on recording and encoding observational information:

> At one end of the continuum are methods that are unstructured and open-ended. The observer tries to provide as complete and nonselective a description as possible. On the other end of the continuum are more structured and predefined methods that itemize, count, and categorize behavior. Here the investigator decides beforehand which behavior will be recorded and how frequently observations will be made. The investigator using structured observation is much more discriminating in choosing which behavior will be recorded and precisely how [it is] to be coded.[4]

One author classifies observation studies by the degree of structure in the environmental setting and the amount of structure imposed on the environment by the researcher,[5] as reflected in Exhibit 9-4. The researcher conducting a class 1, completely unstructured, study would be in a natural or field setting endeavoring to adapt to the culture. A typical example would be an ethnographic study in which the researcher, as a participant-observer, becomes a part of the culture and describes in great detail everything surrounding the event or activity of interest. Donald Roy, in the widely used case in organizational behavior, "Banana

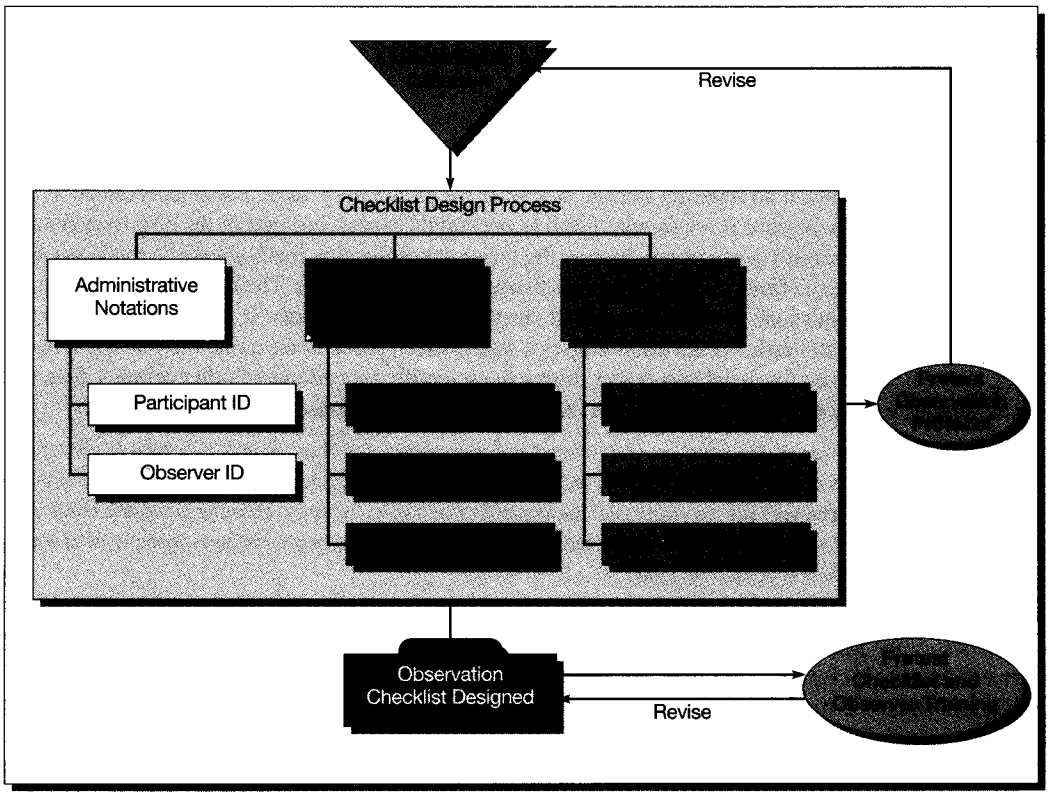
> Exhibit 9-4 Classification of Observation Studies

Research Class	Environment	Purpose	Research Tool
1. Completely unstructured	Natural setting	Generate hypotheses	
2. Unstructured	Laboratory		
3. Structured	Natural setting		Observation checklist
4. Completely structured	Laboratory	Test hypotheses	Observation checklist

Time," took a punch press job in a factory to describe the rituals that a small work group relied on to make their highly repetitive, monotonous work bearable.[6] With other purposes in mind, business researchers may use this type of study for hypothesis generation.

Class 4 studies—completely structured research—are at the opposite end of the continuum from completely unstructured field investigations. The research purpose of class 4 studies is to test hypotheses; therefore, a definitive plan for observing specific, operationalized behavior is known in advance. This requires a measuring instrument, called an **observation checklist,** which is analogous to a questionnaire. Exhibit 9-5 shows the parallels between survey design and checklist development. Checklists should possess a high degree of precision in defining relevant behavior or acts and have mutually exclusive and exhaustive categories. The coding is frequently closed, thereby simplifying data analysis. The participant groups being

> Exhibit 9-5 Flowchart for Observation Checklist Design



> **Exhibit 9-6** Content of Observation: Factual versus Inferential

Factual	Inferential
Introduction/identification of salesperson and customer.	Credibility of salesperson. Qualified status of customer.
Product presented.	Customer interest in product.
Number of customer objections raised per product.	Customer concerns about features and benefits.
Salesperson's attempt to restore controls.	Effectiveness of salesperson's control attempt. Consequences for customer who prefers interaction.
Environmental factors interfering with the interview.	Level of distraction for the customer.

observed must be comparable and the laboratory conditions identical. The classic example of a class 4 study was Bales's investigation into group interaction.[7] Many team-building, decision-making, and assessment center studies follow this structural pattern.

The two middle classes of observation studies emphasize the best characteristics of either researcher-imposed controls or the natural setting. In class 2, the researcher uses the facilities of a laboratory—videotape recording, two-way mirrors, props, and stage sets—to introduce more control into the environment while simultaneously reducing the time needed for observation. In contrast, a class 3 study takes advantage of a structured observational instrument in a natural setting.

Content Specification

Specific conditions, events, or activities that we want to observe determine the observational reporting system (and correspond to measurement questions). To specify the observation content, we should include both the major variables of interest and any other variables that may affect them. From this cataloging, we then select those items we plan to observe. For each variable chosen, we must provide an operational definition if there is any question of concept ambiguity or special meanings. Even if the concept is a common one, we must make certain that all observers agree on the measurement terms by which to record results. For example, we may agree that variable W will be reported by count, while variable Y will be counted and the effectiveness of its use judged qualitatively.

Observation may be at either a *factual* or an *inferential* level. Exhibit 9-6 shows how we could separate the factual and inferential components of a salesperson's presentation. This table is suggestive only. It does not include many other variables that might be of interest, including data on customer purchase history; company, industry, and general economic conditions; the order in which sales arguments are presented; and specific

>snapshot

A consortium of 36 consumer packaged-goods (CPG) manufacturers, research companies, and universities have been working to change the way consumers generate and deliver purchase and consumption information, as well as how this information is integrated with detailed supply chain management information. If the Auto ID Center gets its way, all future CPGs will contain radio frequency identification (RFID) smart labels that will send signals to Internet databases and track a specific product unit from manufacturing through warehousing, retail display, and storage and potentially through consumer storage and consumption and the recycling center. Wal-Mart recently gave the new technology a boost by directing its 100 top suppliers to start using RFID technology as early as January 2005. By its sheer size, Wal-Mart's dictate could transform how observation studies in CPG are done. Goodyear, the world's largest tire manufacturer, also announced that its tires shipped to Wal-Mart in 2005 would contain an RFID microchip within the tire itself, which could also relay tire information to drivers about inflation and wear to improve vehicle safety.

From a research perspective the opportunities seem enormous. Store shelf and display locations could be evaluated for promotional effectiveness, especially when combined with shopper card information. Average age of inventory could be known to the day or hour by matching the RFID location information with shipping and receiving documents. Product recalls could be handled with efficiency. While bar codes currently provide similar information to that promised by RFID tags, they must be scanned to be read. RFID tags need no such intervention but transmit continuously until disabled. Technically, if the tag on the product is not disabled at the time of purchase, the RFID tag could transmit location information from a consumer's car, home, or refrigerator. Such signals broadcast from a consumer's home or car would require compliance, similar to the way consumers volunteer to be part of ACNielsen's Homescan panel today. But according to Katherine Albrecht, founder of consumer action group CASPIAN, "Supermarket cards and retail surveillance devices are merely the opening volley of the marketers' war against consumers. If consumers fail to oppose these practices now, our long-term prospects may look like something from a dystopian science fiction novel."

The main driver of the RFID movement is supply chain savings. According to one analyst, Wal-Mart could save $8.4 billion a year by 2007 by perfecting its inventory management with the information provided by the tags. It also has the possibility of reducing theft, which is another large savings.

www.wal-martstores.com; www.goodyear.com; www.nocards.org; www.acnielsen.com; http://trolleyscan.com

words used to describe certain product characteristics. The particular content of observation will also be affected by the nature of the observation setting.

Observer Training

There are a few general guidelines for the qualification and selection of observers:

- *Concentration:* Ability to function in a setting full of distractions.
- *Detail-oriented:* Ability to remember details of an experience.
- *Unobtrusive:* Ability to blend with the setting and not be distinctive.
- *Experience level:* Ability to extract the most from an observation study.

An obviously attractive observer may be a distraction in some settings but ideal in others. The same can be said for the characteristics of age or ethnic background.

If observation is at the surface level and involves a simple checklist or coding system, then experience is less important. Inexperience may even be an advantage if there is a risk that experienced observers may have preset convictions about the topic. Regardless, most observers are subject to fatigue, halo effects, and **observer drift,** which refers to a decay in reliability or validity over time that affects the coding of categories.[8] Only intensive videotaped training relieves these problems.

The observers should be thoroughly versed in the requirements of the specific study. Each observer should be informed of the outcomes sought and the precise content elements to be studied. Observer trials with the instrument and sample videotapes should be used until a high degree of reliability is apparent in their observations. When there are interpretative differences between observers, they should be reconciled.

Data Collection

The data collection plan specifies the details of the task. In essence it answers the questions *who, what, when, how,* and *where.*

Who?

What qualifies a participant to be observed? Must each participant meet a given criterion—those who initiate a specific action? Who are the contacts to gain entry (in an ethnographic study), the intermediary to help with introductions, the contacts to reach if conditions change or trouble develops? Who has responsibility for the various aspects of the study? Who fulfills the ethical responsibilities to the participants?

What?

The characteristics of the observation must be set as sampling elements and units of analysis. This is achieved when event-time dimension and "act" terms are defined. In **event sampling,** the researcher records selected behavior that answers the investigative questions. In **time sampling,** the researcher must choose among a time-point sample, continuous real-time measurement, or a time-interval sample. For a time-point sample, recording occurs at fixed points for a specified length. With continuous measurement, behavior or the elapsed time of the behavior is recorded. Like continuous measurement, time-interval sampling records every behavior in real time but counts the behavior only once during the interval.[9]

Assume the observer is instructed to observe a quality control inspection for 10 minutes out of each hour (a duration of two minutes each for five times). Over a prolonged period, if the samples are drawn randomly, time sampling can give a good estimate of the pattern of activities. In a time-interval sampling of workers in a department, the outcome may be a judgment of how well the department is being supervised. In a study of sales presentations using continuous real-time sampling, the research outcome may be an assessment of a given salesperson's effectiveness or the effectiveness of different types of persuasive messages.

Other important dimensions are defined by acts. What constitutes an *act* is established by the needs of the study. It is the basic unit of observation. Any of the following could be defined as an act for an observation study:

- A single expressed thought.
- A physical movement.
- A facial expression.
- A motor skill.

Although acts may be well defined, they often present difficulties for the observer. A single statement from a sales presentation may include several thoughts about product advantages, a rebuttal to an objection about a feature, or some remark about a competitor. The observer is hard-pressed to sort out each thought, decide whether it represents a separate unit of observation, and then record it quickly enough to follow continued statements.

>snapshot

SizeUSA

Few observation studies can approach the sheer size and comprehensiveness of SizeUSA, a digital observation study designed to make apparel, furniture, and car shopping more enjoyable. With obesity on the rise (20 percent of U.S. adults meet the government's definition for *obese*, with two-thirds being "overweight"), it's not surprising that manufacturers and retailers from Liz Claiborne to Steelcase to Ford to JCPenney's might need new insights. This may be in part because manufacturer's sizing was previously based on a 1941 study. But it was technology that made the three-dimensional scanning of American bodies possible. The Body Measurement System uses four cameras to register more than 200,000 data points on a body. These data points become coordinates for measuring from one data point to another. The resulting 200 body measurements take less than one minute. By September 2003, the study, sponsored by more than 30 manufacturers, retailers, and universities, scanned more than 10,000 adults. As a result, apparel manufacturers are reassessing garment specifications. Will it be long before car seats take on new dimensions, booths in restaurants expand for those with more ample proportions, casket builders redesign their products, or buying patterns for stocking retail shelves show a new understanding of regional differences in body shape?

www.sizeusa.tc2.com

When?

Is the time of the study important, or can any time be used? In a study of out-of-stock conditions in a supermarket, the exact times of observation may be important. Inventory is shipped to the store on certain days only, and buying peaks occur on other days. The likelihood of a given product being out of stock is a function of both time-related activities.

How?

Will the data be directly observed? If there are two or more observers, how will they divide the task? How will the results be recorded for later analysis? How will the observers deal with various situations that may occur—when expected actions do not take place or when someone challenges the observer in the setting?

Where?

Within a spatial confine, where does the act take place? In a retail traffic pattern study, the proximity of a customer's pause space to a display or directional sign might be recorded. Must the observation take place in a particular location within a larger venue? The location of the observation, such as a sales approach observation within a chain of retail stores, can significantly influence the acts recorded.

Observers face unlimited variations in conditions. Fortunately, most problems do not occur simultaneously. When the plans are thorough and the observers well trained, observation research is quite successful.

> Unobtrusive Measures

Up to this point, our discussion has focused on direct observation as a traditional approach to data collection. Like surveys and experiments, some observation studies—particularly participant observation—require the observer to be physically present in the research situation. This contributes to a **reactivity response,** a phenomenon where participants alter their behavior in response to the researcher.

Webb and his colleagues have given us an insight into some very innovative observational procedures that can be both nonreactive and inconspicuously applied. Called **unobtrusive measures,** these approaches encourage creative and imaginative forms of indirect observation, archival searches, and variations on simple and contrived observation.[10] Of particular interest are measures involving indirect observation based on **physical traces** that include *erosion* (measures of wear) and *accretion* (measures of deposit).

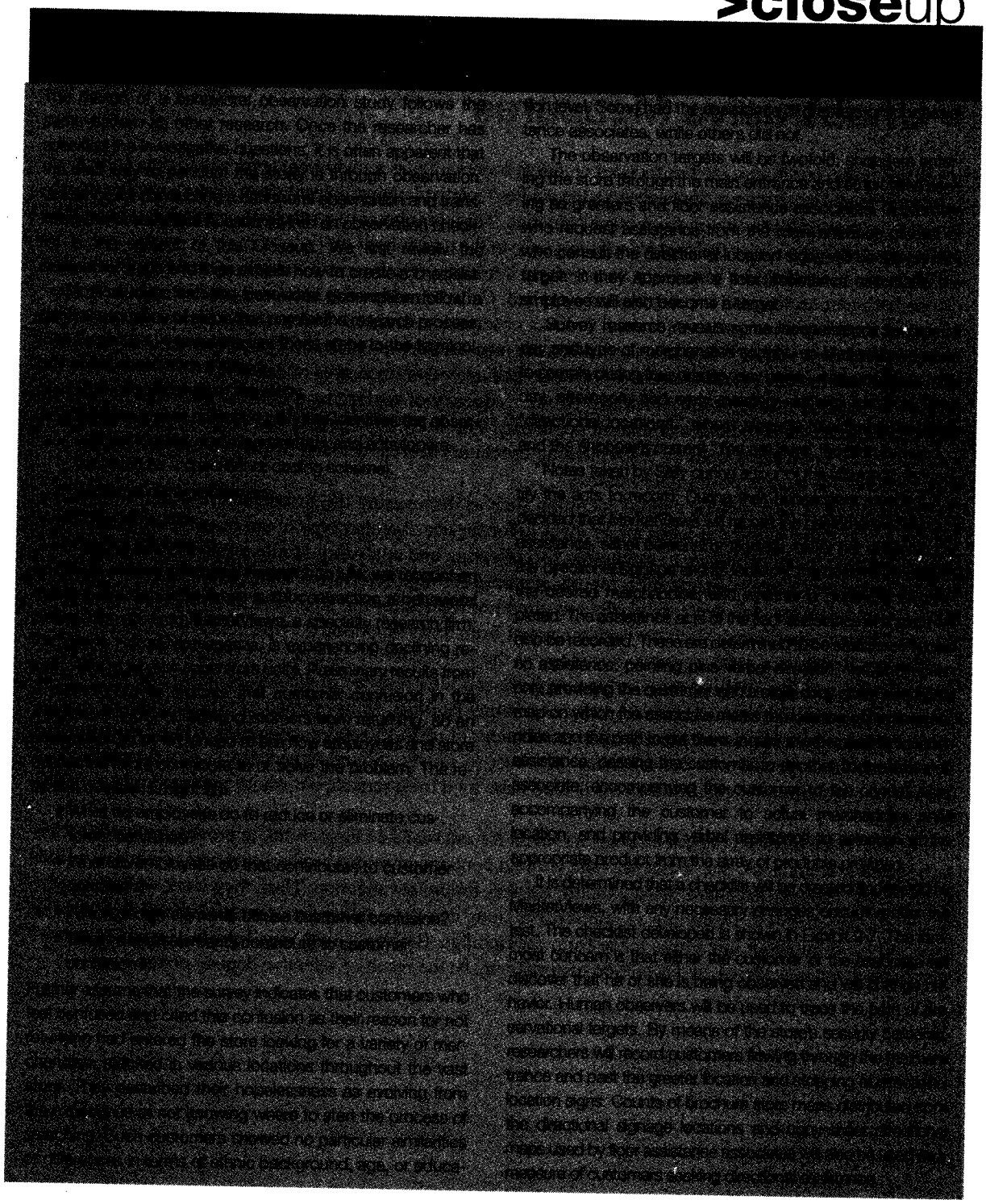
Natural erosion measures are illustrated by the frequency of replacement of vinyl floor tile in front of museum exhibits as an indicator of exhibit popularity. The study of wear and tear on book pages is a measure of library book use. Counting the remaining brochures in a car dealer's display rack after a favorable magazine review suggests consumer interest.

Physical traces also include natural accretion such as discovering the listenership of radio stations by observing car radio settings as autos are brought in for service. Another type of unobtrusive study involves estimating liquor and magazine consumption by collecting and analyzing family trash. An interesting application compared beer consumption reports acquired through interviews with the findings of sampled trash. If the interview data were valid, the consumption figures for the area were at 15 percent. However, the validity was questioned when the beer can count from trash supported a 77 percent consumption rate.[11]

William Rathje is a professor of archaeology at the University of Arizona and founder of the Garbage Project in Tucson. His study of trash, refuse, rubbish, and litter resulted in the subdiscipline that the *Oxford English Dictionary* has termed *garbology.* By excavating landfills, he has gained insight into human behavior and cultural patterns—sometimes sorting the contents of up to 150 coded categories. His previous studies have shown that "people will describe their behavior to satisfy cultural expectations, like the mothers in Tucson who unanimously claimed they made their baby food from scratch, but whose garbage told a very different tale."[12]

Physical trace methods present a strong argument for use based on their ability to provide low-cost access to frequency, attendance, and incidence data without contamination from other methods or reactivity from participants. They are excellent "triangulation" devices for cross-validation. Thus, they work well as supplements to other methods. Designing an unobtrusive study can test a researcher's creativity, and one must be especially careful about inferences made from the findings. Erosion results may have occurred because of wear factors not considered, and accretion material may be the result of selective deposit or survival.

>closeup



Time_____ Day: M T W Th F Sa Su Date_____ Store No. _____ Observer #_____

Target Customer Interception Location: ❑ Main Entry ❑ Directional Location Sign: ❑ #1 ❑ #2 ❑ #3

Target Shopper Characteristics: ❑ Male ❑ Female ❑ Child ❑ Child-teen+ ❑ Adult ❑ Senior

Shopper Companion(s): ❑ Alone ❑ With others: ❑ other adult No.____ M No.____ F ❑ child/children No.____

Shopping Cart Used: ❑ No ❑ Yes

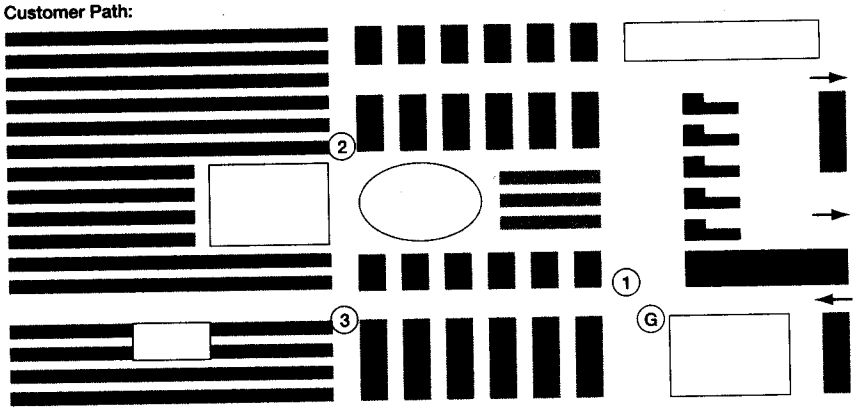
Greeter verbal interaction with target: ❑ No ❑ Yes Greeter No. _____ Action ❑ Point to directional sign ❑ Verbal directions

Floor Assistance Associate Interaction: ❑ No ❑ Yes Interception location: Aisle# _____ Crossway# _____
Associate # _____
Assistance given: ❑ No ❑ Yes Action: ❑ Verbal direction only
❑ Verbal direction plus pointing
❑ Store directional copy-map with marked mdse location
❑ Store directional copy-map with mdse location & path
❑ Inquire of other staff
❑ Pass customer to another FAA
❑ Accompany customer to aisle location
❑ Accompany customer to mdse shelf location
❑ Product selection assistance offered

Directional Sign Interaction: ❑ No ❑ Yes Sign location: ❑ #1 ❑ #2 ❑ #3

Purchase: ❑ No ❑ Yes: Item Sought Assistance For: ❑ No ❑ Yes

Customer Path:



>summary

1 Observation is one of the few options available for studying records, mechanical processes, lower animals, small children, and complex interactive processes. We can gather data as the event occurs and can come closer to capturing the whole event than with interrogation. On the other hand, we have to be present to catch the event or have some recording device on the scene to do the job.

2 Observation includes a variety of monitoring situations that cover nonbehavioral and behavioral activities.

3 The strengths of observation as a data collection method include:
- Securing information about people or activities that cannot be derived from experiments or surveys.
- Avoiding participant filtering and forgetting.
- Securing environmental context information.
- Optimizing the naturalness of the research setting.
- Reducing obtrusiveness.

4 Observation may be limited by:
- The difficulty of waiting for long periods to capture the relevant phenomena.
- The expense of observer costs and equipment.
- The reliability of inferences from surface indicators.
- The problems of quantification and disproportionately large records.
- The limitation on presenting activities and inferences about cognitive processes.

5 We can classify observation in terms of the observer-participant relationship. This relationship may be viewed from three perspectives: (1) Is the observation direct or indirect? (2) Is the observer's presence known or unknown? (3) Is the observer a participant or nonparticipant?

6 The design of an observation study follows the same general pattern as other research. Observation studies fall into four general types based on the degree of structure and the nature of the observational environment. The researcher must define the content of the study; develop a data collection plan that identifies participants, sampling strategy, and "acts" (often operationalized as a checklist or coding scheme); secure and train observers; and launch the study.

Unobtrusive measures offer an unusual and creative approach to reducing reactivity in observation research by indirect observation and other methods. Measures of erosion and accretion serve as ways to confirm the findings from other methods or operate as singular data sources.

>keyterms

concealment 229
direct observation 229
event sampling 235
extralinguistic behavior 227
indirect observation 229
linguistic behavior 227
nonverbal behavior 227
observation 225
observation checklist 232
observer drift 234
participant observation 230
physical condition analysis 226
physical traces 237
process (activity) analysis 226
reactivity response 237
record analysis 225
simple observation 231
spatial relationships 227
systematic observation 231
time sampling 235
unobtrusive measures 237

>discussionquestions

Terms in Review

1 Compare the advantages and disadvantages of the survey to those of observation. Under which circumstances could you make a case for using observation?

2 What ethical risks are involved in observation? In the use of unobtrusive measures?

3 Based on present or past work experience, suggest problems that could be resolved by using observation-based data.

4 Distinguish between the following:

a The relative value of communication and observation.

b Nonverbal, linguistic, and extralinguistic analysis.

c Factual and inferential observation.

Making Research Decisions

5 The observer-participant relationship is an important consideration in the design of observation studies. What kind of relationship would you recommend in each of the following cases?

a Observations of professional conduct in the classroom by the student author of a course evaluation guide.

b Observation of retail shoppers by a researcher who is interested in determining customer purchase time by type of goods purchased.

c Observation of a focus group interview by a client.

d Effectiveness of individual farmworker organizers in their efforts to organize employees of grape growers.

6 Assume you are the manufacturer of modular office systems and furniture as well as office organization elements (desktop and wall organizers, filing systems, etc.). Your company has been asked to propose an observation study to examine the use of office space by white-collar and managerial workers for a large insurance company. This study will be part of a project to improve office efficiency and paperwork flow. It is expected to involve the redesign of office space and the purchase of new office furniture and organization elements.

a What are the varieties of information that might be observed?

b Select a limited number of content areas for study, and operationally define the observation acts that should be measured.

7 Develop a checklist to be used by observers in the previous study.

a Determine how many observers you need, and assign two or three to a specific observation task.

b Compare the results of your group members' checklists for stability of recorded perceptions.

8 You wish to analyze the pedestrian traffic that passes a given store in a major shopping center. You are interested in determining how many shoppers pass by this store, and you would like to classify these shoppers on various relevant dimensions. Any information you secure should be obtainable from observation alone.

a What other information might you find useful to observe?

b How would you decide what information to collect?

c Devise the operational definitions you would need.

d What would you say in your instructions to the observers you plan to use?

e How might you sample this shopper traffic?

Bringing Research to Life

9 Develop the investigative questions that should have guided Sally's observation study of HomeExtravaganza.

From Concept to Practice

10 Using Exhibit 9-3, identify the type of study described in each of the Snapshots featured in this chapter.

>wwwexercise

One of the longest ongoing observation studies is the garbage project at the University of Arizona. If you manufactured packaging materials for food and personal care products, how might you use what the researchers have learned? To get started, try **bara.arizona.edu/gs.htm.**

>case*

Envirosell

* All cases appear on the text CD; you will find abstracts of these cases in the Case Abstracts section of this text. Video cases are indicated with a video icon.

>chapter 10

Surveys

"The ubiquity of cell phones and the rapid and continuing development of the Internet have completely altered the way we talk to each other, the way marketers talk to customers, the way customers shop and the way the media research their audiences."

Alain Tessier, founder, Mediamark Research, Inc.

>learningobjectives

After reading this chapter, you should understand . . .

1 The process for selecting the appropriate and optimal communication approach.

2 What factors affect participation in communication studies.

3 The major sources of error in communication studies and how to minimize them.

4 The major advantages and disadvantages of the three communication approaches.

5 Why an organization might outsource a communication study.

>bringingresearchtolife

"Jason, you'll enjoy this one," Sally comments as she joins him for their meeting to discuss the Albany Outpatient Laser Clinic patient satisfaction project. She extends the letter and smiles widely.

"Is that the letter that clinic administrator George Bowlus promised he'd send over this morning?"

Sally nods as she passes it across the desk.

Edna Koogan, P. A., Attorney at Law
P. O. Box 8219-2767
Albany, New York 12212-2767

Dr. Edith Coblenz, M.D.
3456 Barshoot Building
Albany, New York 12212

Dear Edith,

I want you to have my side of this morning's incident at the Albany Outpatient Laser Clinic Inc. I am sure you have by now heard from the business manager and the admissions director and possibly the anesthetist. You are a stockholder in the center, I know, and as your former lawyer and current patient, I thought I owed you a warning and explanation.

You told me to report to the center at 7 a.m. for a workup in preparation for eye surgery tomorrow. I caught a cab and was there at 6:55 promptly. I identified myself as your patient, and at once the receptionist called someone from the back room and said, "Ms. Koogan's personal physician is Dr. Coblenz," which is, of course, not true, as you are my eye doctor. But I was too cold to argue since they had left us standing in the snow until 7:10.

A fellow insisted on taking my glasses and medications with him "for a workup." As soon as he disappeared with my glasses a second admissions clerk appeared and handed me a "questionnaire" to fill out. It appeared to be a photocopy of a photocopy of a photocopy and was very faintly printed in small gray type on a light gray sheet. When I pointed out that I was about to be admitted for treatment of glaucoma, a leading cause of blindness, she told me, "Do the best you can." When I objected emphatically, she seemed taken aback. I suppose most of her 80-year-old patients are more compliant, but I guess I am an intractable old attorney.

Was I wrong to object to the questionnaire being too faint and the type too small? Am I the first glaucoma patient who has ever been treated at the Laser Center? One would think they would understand you can't ask someone blind in one eye to fill out such a questionnaire, especially without her glasses. The clerk finally, grudgingly, asked me to sit by her side, so she could help me.

There were several questions about my name, address, age, and occupation. Then she wanted to know the name of the admitting physician and then the phone number (but not the name) of the physician who was most familiar with my health. I said the admitting physician was an eye doctor and the physician most familiar with my health was a GP, and asked, which did she want the phone number for, the eye doctor or the GP? She admonished me to try and "get over that bad attitude." Then she told me to go fill out the form as best I could.

A very nice patient (hemorrhoids, no vision problems) offered to help me. She began reading the questionnaire and came to the item "Past Medical History: Yes or No." She didn't think this made any sense, and neither did I, because everyone has a past medical history, and no one

>cont'd

Dr. Edith Coblenz, M.D. Page 2

would answer no; but after a while we decided that it meant I should answer yes or no to all of the questions underneath, such as: Did I have diabetes? Did I have heart disease? When we came to "Have you ever had or been treated for the flu?" we could not decide if it meant, have I ever had the flu? Or have I had flu recently (I had flu six months ago, but is that "recent"?) so we asked the receptionist. She became almost speechless and said she would get me some help.

After a while the "help" appeared—a nurse who wanted to measure my blood pressure and induce me to take a blue pill, which she said would be good for my "nerves." I refused and pointed out rather curtly that this was not a gulag but an admissions department, a place of business, for crying out loud, where they ought to be able to handle a little criticism from someone trained to elicit accurate information.

By then several nice people had pitched in to help me with the questionnaire. But this made it even harder to decide on the answers, because we understood so many of the questions differently and couldn't agree. When we came to "Are all your teeth intact?" One man thought it meant, "Do you have false teeth?" And another thought it meant, "Do you have any broken dentures?" But a woman who assured me her son is a dentist said it meant, "Do you have any loose teeth?" We couldn't decide how to settle this issue.

Then there was the question "Do you have limited motion of your neck?" and by then everyone was enjoying the incongruity of these questions. Of course I have limited motion of the neck. Doesn't everyone? We decided to save that question for later clarification.

After all of the yes-no questions there came various other stumpers, such as "Please list your current medications." The problem is, of course, that I have purple eye drops and yellow eye drops, but the young man had taken them away from me "for a workup," so I had no way of accurately answering the questions. I was pretty sure one of them was glucagon, so I guessed and put that down, but then I had second thoughts and scratched it out. (When I got home, I checked and it was betagan, not glucagon.)

There were four of us working on the questionnaire by then, and we were laughing and crowing and having a high time and discharging our anxieties, which further annoyed the admissions clerk. So she called the anesthetist, a stuck-up young fellow who said he had written the questionnaire himself and had never had any problems with it. That is when I told him, if he had not had any problems with this questionnaire, this proved it was better to be lucky than smart.

He said he was going to overlook my "attitude" because he knew I was old and anxious about the coming operation. I told him I was going to take my business somewhere else because of the bilaterality problem. "What is that?" he asked. I said, I have two eyes, and if anyone as dumb as him went after me with a laser, he would probably cut the wrong eye.

I caught a cab and sent my neighbor back for my glasses. As your lawyer, I urge you not to further involve yourself with such fools.

Edna

"It would seem that Albany Clinic might need help with questionnaire development," comments Jason.

Sally responds sarcastically, "You think?"

> Characteristics of the Communication Approach

Research designs can be classified by the approach used to gather primary data. There are two alternatives. We can observe conditions, behavior, events, people, or processes. Or we can *communicate* with people about various topics, including participants' attitudes, motivations, intentions, and expectations. The researcher

determines the appropriate data collection approach largely by identifying the types of information needed—investigative questions the researcher must answer. As marketers we learn much about opinions and attitudes by communication-based research; observation techniques are incapable of revealing such critical elements. This is also true of intentions, expectations, motivations, and knowledge. Information about past events is often available only through surveying or interviewing people who remember the events. Thus, the choice of a communication versus an observation approach may seem an obvious one, given the directions in which investigative questions may lead. The characteristics of the sample unit—specifically, whether a participant can articulate his or her ideas, thoughts, and experiences—also play a role in the decision. Part A of Exhibit 10-1 shows the relationship of these decisions to the research process detailed in Chapter 3. Part B indicates how the researcher's choice of a communication approach affects the following:

- The creation and selection of the measurement questions (to be explored in Chapters 12 and 13).
- Instrument design (to be discussed in Chapter 14), which incorporates attempts to reduce error and create participant-screening procedures.
- Sampling issues (explored in Chapters 15), which drive contact and callback procedures.
- Data collection processes, which create the need for follow-up procedures (when self-administered instruments are used) and possible interviewer training (when personal or telephone surveying methods are used).

In this chapter we focus on the choices the researcher must make once the communication approach has been chosen (Exhibit 10-2). We discuss the characteristics and applications of the various communication approaches as well as their individual strengths and weaknesses (summarized in Exhibit 10-5).

The **communication approach** involves surveying or interviewing people and recording their responses for analysis. A **survey** is a measurement process used to collect information during a highly structured interview—sometimes with a human interviewer and other times without. Questions are carefully chosen or crafted, sequenced, and precisely asked of each participant. The goal of the survey is to derive comparable data across subsets of the chosen sample so that similarities and differences can be found. When combined with statistical probability sampling for selecting participants, survey findings and conclusions are projectable to large and diverse populations.

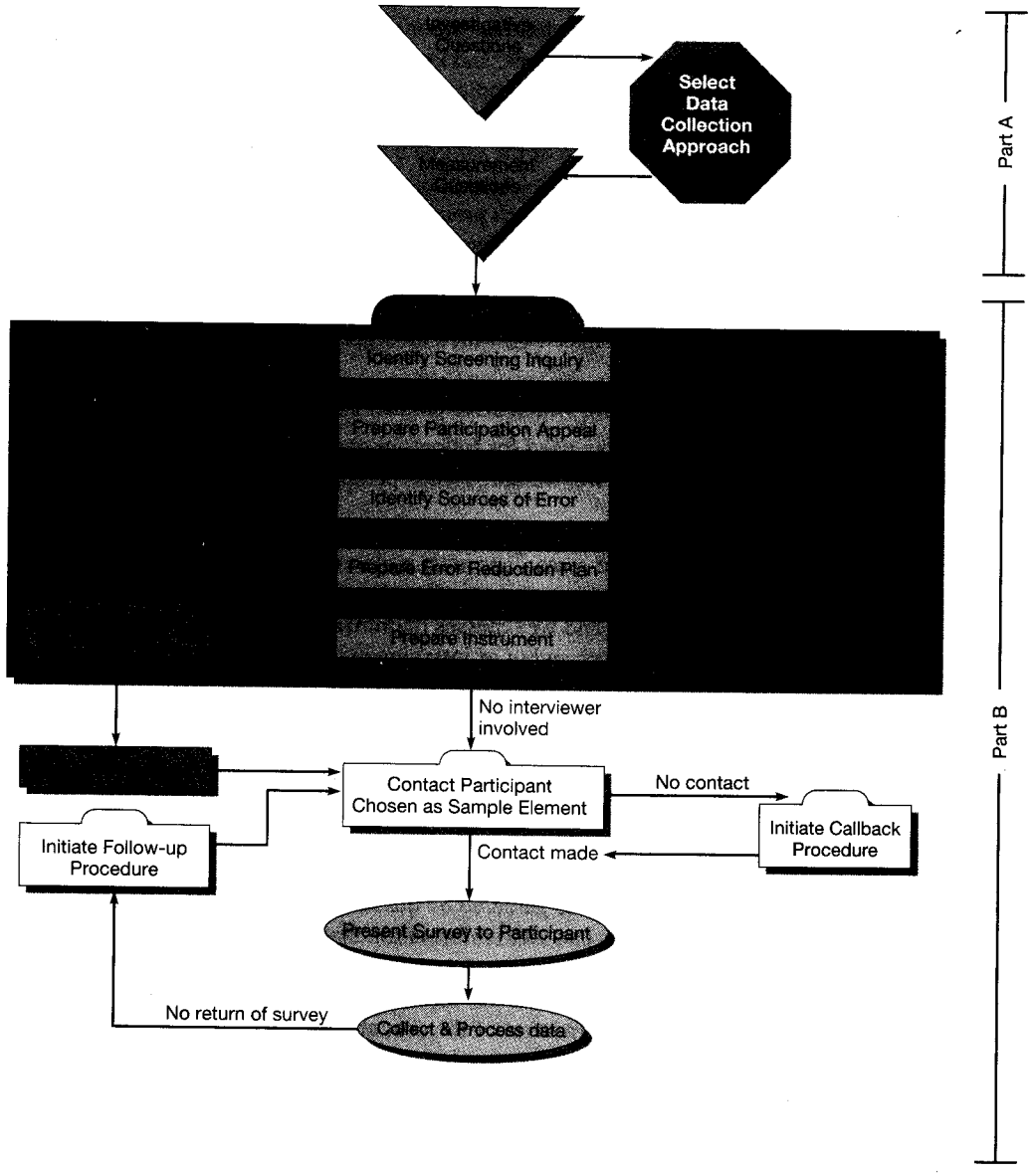
The great strength of the survey as a primary data-collecting approach is its versatility. Abstract information of all types can be gathered by questioning others. Additionally, a few well-chosen questions can yield information that would take much more time and effort to gather by observation. A survey that uses the telephone, mail, a computer, e-mail, or the Internet as the medium of communication can expand geographic coverage at a fraction of the cost and time required by observation. The bad news for communication research is all communication research has some error. Understanding the various sources of error helps researchers avoid or diminish such error.

< The communication approach differs significantly from the observation approach discussed in Chapter 9. You might wish to revisit Exhibit 9-2 where the methods are compared.

Error in Communication Research

As depicted in Exhibit 10-3, there are three major sources of error in communication research: measurement questions and survey instruments, interviewers, and participants. Researchers cannot help a business decision maker answer a research question if they (1) select or craft inappropriate questions, (2) ask them in an inappropriate order, or (3) use inappropriate transitions and instructions to elicit information. We will spend considerable time in Chapters 12, 13, and 14 discovering ways to avoid these sources of error.

> Exhibit 10-1 Data Collection Approach: Impact on the Research Process

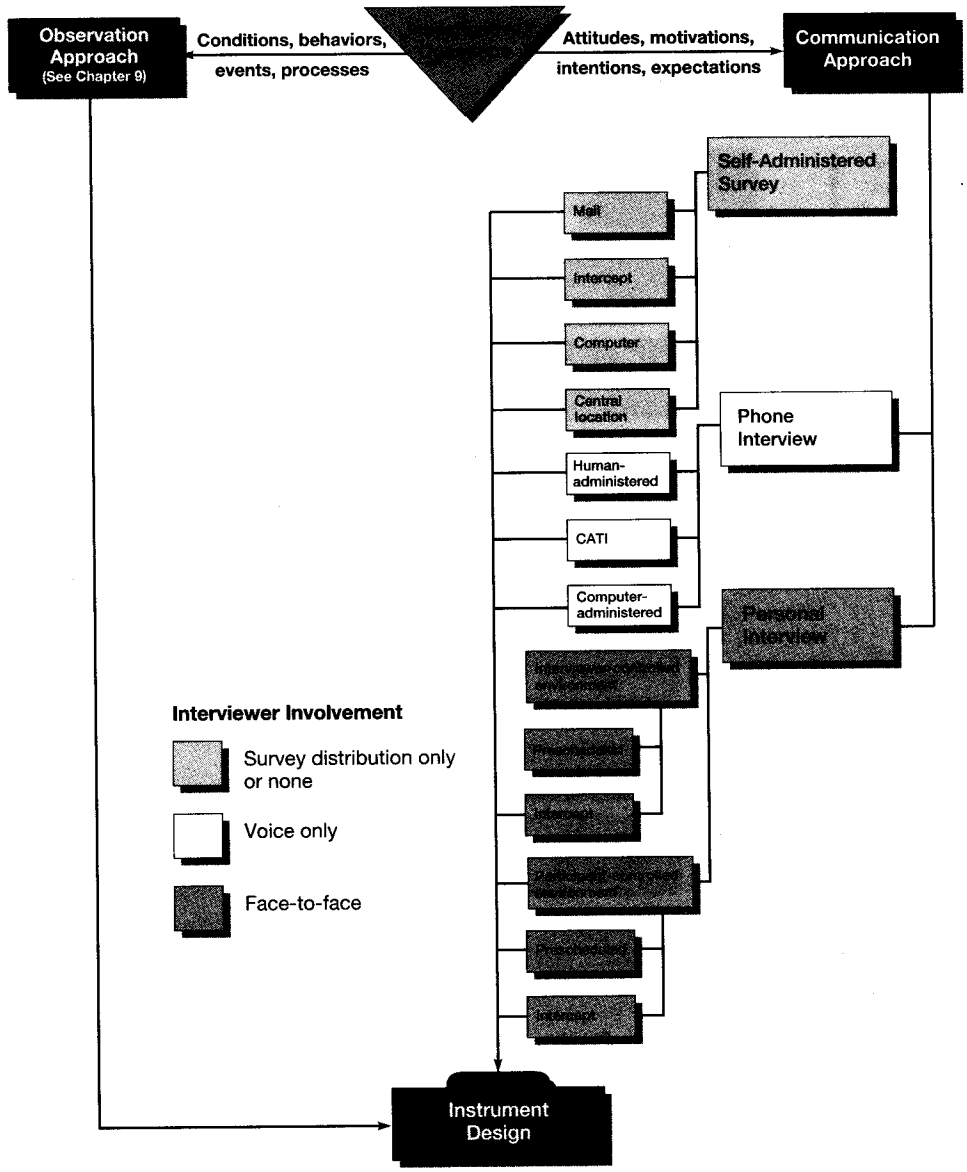


Interviewer Error

From the introduction to the conclusion of the interview, there are many points where the interviewer's control of the process can affect the quality of the data. **Interviewer error,** a major source of sampling error and response bias, is caused by numerous actions:

- *Failure to secure full participant cooperation (sampling error).* The sample is likely to be biased if interviewers do not do a good job of enlisting participant cooperation. While instrument error was evident in the Albany Clinic study, there is also a question of whether the distributor of the survey (the receptionist) contributed to the lack of data quality in the data collected from Edna. Toward the end of

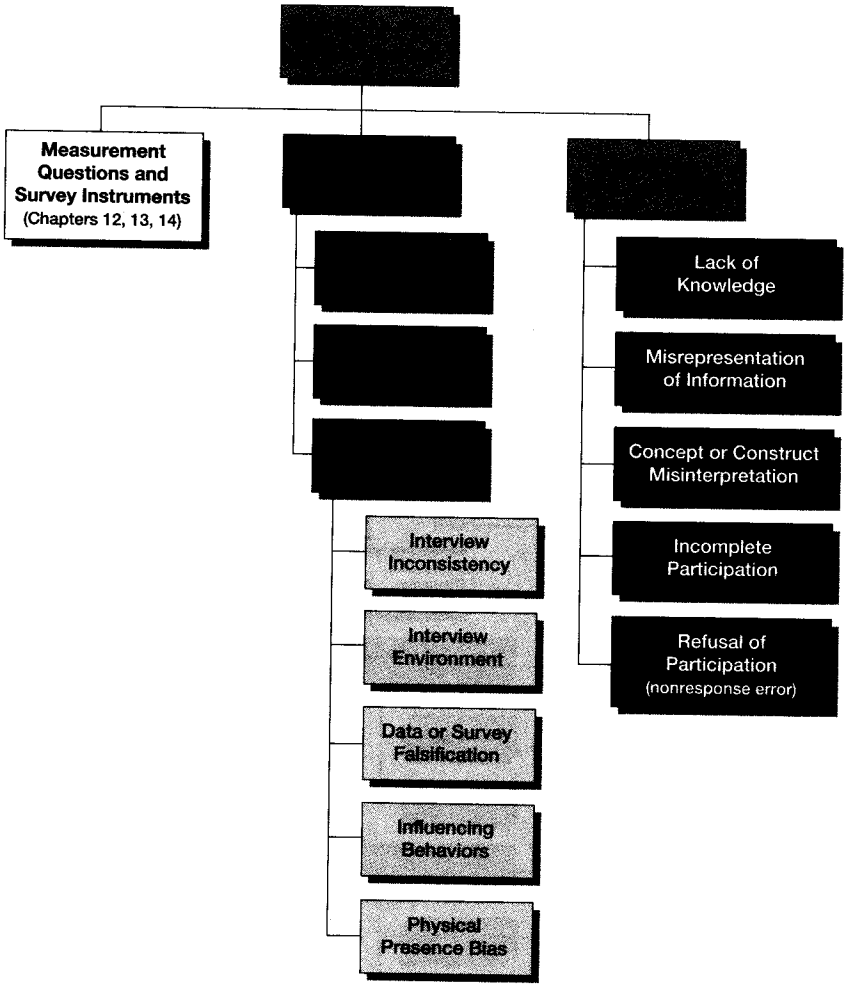
> Exhibit 10-2 Selecting a Communication Data Collection Method



the communication, there is some doubt about the seriousness with which questions were answered. Stressing the importance of the information for the upcoming surgery and having a receptionist trained to serve as question interpreter/prober could reduce this type of error.

- *Failure to record answers accurately and completely (data entry error).* Error may result from an interview recording procedure that forces the interviewer to summarize or interpret participant answers or that provides insufficient space to record verbatim answers as provided by the participant.
- *Failure to consistently execute interview procedures.* The precision of survey estimates will be reduced and there will be more error around estimates to the extent that interviewers are inconsistent in ways

> Exhibit 10-3 Sources of Error in Communication Research



that influence the data. In the Albany Clinic study, providing different definitions (of diseases) to different clinic patients completing the medical history would create bias.

- *Failure to establish appropriate interview environment.* Answers may be systematically inaccurate or biased when interviewers fail to appropriately train and motivate participants or fail to establish a suitable interpersonal setting.[1] Since the Albany Clinic study asked for factual rather than attitudinal data, interviewer-injected bias would have been limited. If the clinic had required the admissions clerk (who insulted Edna by referring to her negative attitude) to also conduct a postsurgery interview on patient satisfaction, the results of the latter study may have been influenced by interviewer bias.
- *Falsification of individual answers or whole interviews.* Perhaps the most insidious form of interviewer error is cheating. Surveying is difficult work, often done by part-time employees, usually with only limited training and under little direct supervision. At times, falsification of an answer to an overlooked question is perceived as an easy solution to counterbalance the incomplete data. This easy, seemingly harmless first step can be followed by more pervasive forgery. It is not known how much of this

occurs, but it should be of constant concern to research directors as they develop their data collection design and to those organizations that outsource survey projects.

- *Inappropriate influencing behavior.* It is also obvious that an interviewer can distort the results of any survey by inappropriate suggestions, directions, or verbal probes; by word emphasis and question rephrasing; by tone of voice; or by body language, facial reaction to an answer, or other nonverbal signals. These activities, whether intentional or merely due to carelessness, are widespread. This problem was investigated using a simple questionnaire and participants who then reported on the interviewers. The conclusion was, "The high frequency of deviations from instructed behavior is alarming."[2]
- *Physical presence bias.* Interviewers can influence participants in unperceived subtle ways. Older interviewers are often seen as authority figures by young participants, who modify their responses accordingly. Some research indicates that perceived social distance between interviewer and participant has a distorting effect, although the studies do not fully agree on just what this relationship is.[3]

In light of the numerous studies on the various aspects of interview bias, the safest course for researchers is to recognize the constant potential for response error.

Participant Error

Three broad conditions must be met by participants to have a successful survey:

- The participant must possess the information being targeted by the investigative questions.
- The participant must understand his or her role in the interview as the provider of accurate information.
- The participant must have adequate motivation to cooperate.

Thus participants cause error in two ways: whether they respond (willingness) and how they respond.

Participation-Based Errors

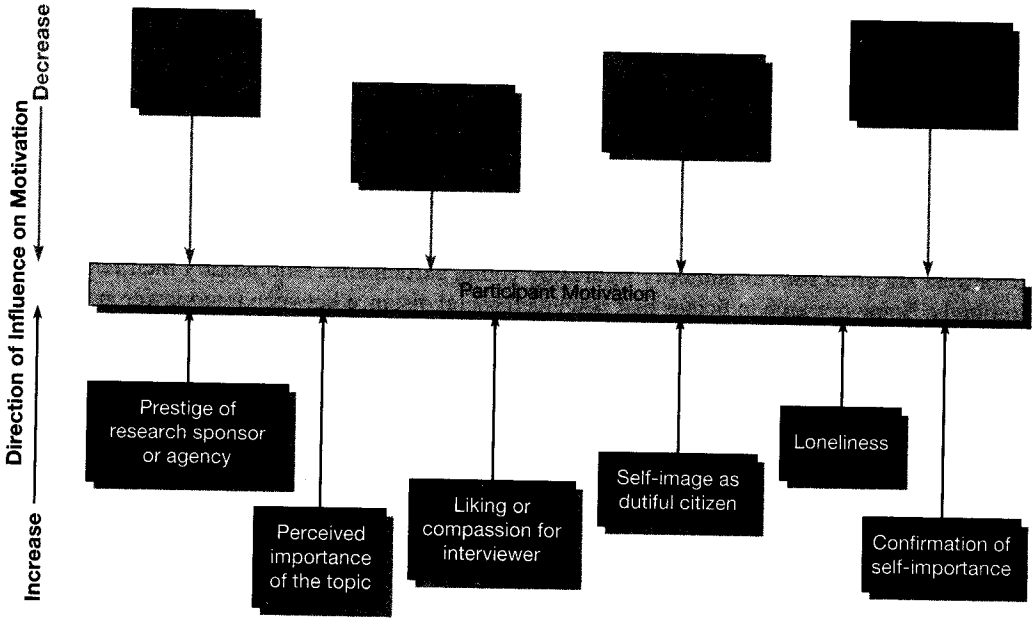
Three factors influence participation:[4]

- The participant must believe that the experience will be pleasant and satisfying.
- The participant must believe that answering the survey is an important and worthwhile use of his or her time.
- The participant must dismiss any mental reservations that he or she might have about participation.

Whether the experience will be pleasant and satisfying depends heavily on the interviewer in personal and telephone surveys. Typically, participants will cooperate with an interviewer whose behavior reveals confidence and who engages people on a personal level. Effective interviewers are differentiated not by demographic characteristics but by these interpersonal skills. By confidence, we mean that most participants are immediately convinced they will want to participate in the study and cooperate fully with the interviewer. An engaging personal style is one where the interviewer instantly establishes credibility by adapting to the individual needs of the participant. For the survey that does not employ human interpersonal influence, convincing the participant that the experience will be enjoyable is the task of a prior notification device or the study's written introduction.

For the participant to think that answering the survey is important and worthwhile, some explanation of the study's purpose is necessary, although the amount of disclosure will vary based on the sponsor's objectives. In personal or phone surveys the researcher will provide the interviewer with instructions for discovering what explanation is needed and supplying it. Usually, the interviewer states the purpose of the study, tells how the information will be used, and suggests what is expected of the participant. Participants should feel

> Exhibit 10-4 Factors Influencing Participant Motivation



Source: Influenced by Robert L. Kahn and Charles F. Cannell, "Interviewing," in David L. Sills, ed., *International Encyclopedia of the Social Sciences*, vol. 8, p. 153. Copyright © 1968 by Crowell Collier and Macmillan, Inc.

that their cooperation will be meaningful to themselves and to the survey results. When this is achieved, more participants will express their views willingly.

As depicted in Exhibit 10-4, the quality and quantity of information secured depend heavily on the ability and willingness of participants to cooperate. Potential participants often have reservations about being interviewed that must be overcome. They may suspect the interviewer has an illegitimate purpose. They may view the topic as too sensitive and thus the interview as potentially embarrassing or intrusive. Or they may feel inadequate or fear the questioning will belittle them. Previous encounters with businesses that have attempted to disguise their sales pitch or fund-raising activities as a research survey can also erode participants' willingness to cooperate. In personal and phone interviews, participants often react more to their feelings about the interviewer than to the content of the questions.

At the core of a survey or interview is an interaction between two people or between a person and a questionnaire. In the interaction the participant is asked to provide information. While he or she has hope of some minimal personal reward—in the form of compensation for participation or enhanced status or knowledge—he or she has little hope of receiving any immediate or direct benefit from the data extracted. Thus participant motivation is a responsibility of the researcher and the interviewer. Studies of reactions to many surveys show that participants can be motivated to participate in personal and phone interviews and, in fact, can even enjoy the experience. In one study, more than 90 percent of participants said the interview experience was interesting, and three-fourths reported they were willing to be interviewed again.[5] In intercept/self-administered studies, the interviewer's primary role is to encourage participation as the participant completes the questionnaire on his or her own. Taking away Edna's glasses, along with the natural anxiety associated with eye surgery, would not have encouraged Edna's participation. However, the "required" nature of the information (we assume surgery would not commence without prior completion of the questionnaire) guaranteed Edna's participation, no matter how grudgingly given.

By failing to respond or refusing to respond, participants create a nonrepresentative sample for the study overall or for a particular item or question in the study. In surveys, **nonresponse error** occurs when the