CHAPTER SIX

Prepare a Discussion Guide and Construct Good Questions

DATA CAPTURE TOOLS

The purpose of a discussion guide, and the reason you must carefully construct questions for it, is to capture effectively data from the visits. You should also give careful consideration to the use of two other data capture devices: tape recorders and cameras. Virtually any research-oriented program of visits should consider tape recording, whereas there are a few types of programs where cameras may be very important. This advice only applies to research visits; rarely, if ever, would a customer expect to see a sales call, service call, or presentation tape-recorded. This advice is also limited to North America—cultural norms elsewhere may argue against a tape recorder.

The idea of tape-recording even a research visit is always controversial in seminars. Won’t the tape recorder inhibit customers and undercut learning? My views on this matter are as follows. First, you

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must always ask permission, and if permission is refused, heed that refusal. Second, most of the people you will visit have been tape-recorded before in similar contexts. Third, although an individual may be initially mindful of the tape, in my experience, once an interview is launched people soon forget about it. Fourth, a tape recorder can contribute significantly to the task of data capture.

Seldom will you or anyone else listen to all the tapes accumulated over a program. Rather, any program will contain a handful of very rich, illuminating, or complex interchanges. It is these moments that require review and that motivate use of the tape recorder. Similarly, verbatim quotes are very powerful in visit reports (see Chapter 8). Customers always speak more vividly than visitors dare. Particularly when you must deliver bad news to management, it helps to have the customer be the messenger! Tapes serve to retrieve these quotes. More generally, referring to the tape of a particular interview can be useful in resolving disagreements among team members and clarifying the analysis of particular topics. In summary, tape recorders are only a convenience; you can conduct a successful program of visits without them. But, on balance, you will capture more information with a tape than without.

Cameras cannot be recommended as universally as tape recorders, but may bring important benefits to particular programs. For instance, a printer team from one firm conducted a series of visits to home offices and small businesses. They discovered that space in such offices was extremely limited. Conventional printer design, which had the power cord coming out the back, caused problems—two or three precious inches were lost as the printer had to be placed some distance out from the wall to accommodate the power cord. The visit team documented this problem with photographs, and new versions of the printer were designed with the power cord on the side.

In general, a camera is advisable when the physical context of your product is of interest. A picture can save you much laborious description, while having greater impact. Recognize that on balance, a Polaroid process camera will be less threatening to customers—they can satisfy themselves as to the triviality, to them, of the pictures you are taking away. In any case, allow plenty of time for gaining permission to bring a camera; this process is more onerous in the case of cameras than tape recorders. And, of course, you must expect that more security-conscious customers will flatly refuse you permission to use a camera or tape. Nonetheless, it does little harm to ask.
RATIONALE FOR USING
A DISCUSSION GUIDE

Have you ever participated in a meeting that was boring, dull, a waste of time? Of course you have! Bad meetings generally result either from the lack of an agenda or a chairperson who fails to exercise leadership. A good interview requires the same things as a good meeting: a feasible agenda and appropriate leadership. The discussion guide serves as an agenda for the visit (a discussion of leadership in interviews is given in Chapter 7). Without a discussion guide, your interviews will tend to suffer from digressions, lack of continuity, and excessive variability.

It is generally useful to prepare the discussion guide using an outline format. You might think of the discussion guide as a kind of roadmap to the interview. It tells you what has to be covered in the 1 or 2 hours at your disposal. It indicates a sequence for the interview, gives the priority level for each individual topic, and helps you to stay on track and use the time well. The discussion guide also assures some minimum level of consistency from interview to interview, and keeps you from inadvertently omitting a topic. Finally, the discussion guide helps to coordinate the efforts of multiple teams in a larger

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Problem: The Discussion Guide Becomes a Questionnaire
There can be a tendency to obsess over the discussion guide, causing it to grow ever longer and more detailed. People with technical backgrounds tend to be most comfortable with precision and exactitude, and may end up creating an over-elaborate discussion guide. Remember that the guide is best thought of as a rough agenda or as a collection of conversation starters. It is not necessary to worry or slave over the wording of every item. Two to four pages is about the right length. Too much elaboration suggests either anxiety about the value of qualitative research or the attempt to satisfy too many objectives in a single visit.
project. It makes certain that all the teams are really engaged in the same research program.

EXHIBIT 6.1

Sample Discussion Guide:
New Product Development

I. Introduction
   1. Orientation questions: nature of customer's application, how much and what kind of equipment owned
   2. General business issues: factors driving purchase of this equipment, upcoming changes in the business, and so on

II. Perceptions of Current Offerings
   1. Problems in buying, using, and supporting existing solutions
   2. Limitations and shortcomings of existing equipment

III. Desired Project Enhancements
   1. Probe for underlying needs and driving factors
   2. Get specific examples of desired functionality
   3. Probe for relative importance of each need; tie back to fundamental task

IV. Product Support
   1. Probe for issues surrounding product functionality: support, training, documentation, ordering, and delivery

V. Wrap-up
   1. Summarize and probe for additional insights
   2. Allow customer to raise own issues

In designing a discussion guide, you have to consider three aspects. Topics correspond to the Roman numerals in a conventional outline format, and represent the half-a-dozen major content areas that will be covered during the interview. For instance, if you were exploring satisfaction with a test instrument, the topics might include reliability, performance, support, and documentation, among others.
Within each topic you will have one or more specific questions. For example, under reliability, you might explore such questions as “Has the instrument ever failed while in operation?” or “What kind of problems have you experienced in using the instrument?” A final, less obvious component, is the sequence of topics and questions. As discussed in the next section, this sequence ought not to be left to chance or whim.

TIPS FOR PREPARING AND WORKING WITH A DISCUSSION GUIDE

1. The discussion guide is the link between your research objectives and the actual dialogue that takes place during the interviews. As with the statement of objectives, it is a good idea to circulate early drafts of the discussion guide to responsible management, peers and associates, and prospective team members for their comments and suggestions.

2. The structure of the discussion guide needs to balance generality and specificity. If it is too vague and high level, it won’t help you to navigate the rougher and more tumultuous interviews. If it is too specific, it will cramp your style. Remember that your guide is only a guide, not a script. If you make your guide too elaborate, specifying every last detail, you will undercut your interview performance! Think of the guide as a set of prompts and reminders. You want something that you can glance at now and then within the interview. If you have to read directly from your guide in order to execute the interview, then you have gone astray.

3. The arrangement of topics in the discussion guide should promote a smooth flow of conversation. Ideally, one topic will lead logically to the next. As will be discussed in more detail in the next chapter, the discussion guide should “ramp up,” starting with a few safe and easily answered questions, and moving on to the more difficult and challenging. The importance of constructing a logical flow among topics can best be illustrated in the negative. If you fail to develop a good flow, the customer is more likely to feel confused. He or she may feel jerked about, unable to gather their thoughts for
a considered answer. The more confusing and helter-skelter the 
interview from the customer's perspective, the greater their fatigue 
and the less likely they are to go the extra mile for you.

In devising a logical flow of topics and questions, use the follow-
ing three rules of thumb:

a. Start with the familiar and work out to topics more remote from the 
customer's immediate concerns. For example, first ask about the 
present, and even the past, before exploring the future.

b. Begin with general issues before getting very specific. It takes time 
to build rapport with customers, and plunging immediately into very 
technical details is likely to put people off. In any case, you want to 
discover the overall frame of reference before attempting to nail 
down details.

c. Within each topic area, begin with open-ended questions and finish 
up with closed-ended questions. These two types of questions are 
elaborated in the next chapter. Open-ended questions leave the 
customer free to choose answer categories, whereas closed-end 
questions ask customers to pick an answer from a list you supply. It 
is important to begin topics with more open-ended questions so as 
to minimize the biasing effect on your preexisting notions. Open-
ended questions open up a topic; closed-ended questions bring 
closure on specific points.

4. Pilot test the guide with one or two easily reached, safe, and 
familiar customers. Perhaps your 1-hour guide really requires 3 
hours to execute; or perhaps what you thought was a 2-hour guide is 
easily handled in 45 minutes. The learning curve as regards assem-
bling a discussion guide is very steep: One or two pilot tests will 
generally lead to a much more effective discussion guide. In the pilot 
test, clumsy transitions and errors of omission will quickly become 
apparent.

5. Be flexible in applying your guide within the interview. Some-
times newcomers to the customer visit method, especially quantita-
tively trained individuals such as engineers, operate under the 
misapprehension that George Gallup, Louis Harris, and other poll-
sters are their role models. Hence, they attempt to execute the 
discussion guide in exactly the same way in each and every interview. 
Instead, remember that you are conducting a series of loosely struc-
tured, exploratory interviews with the goal of discovering and under-
standing customer needs. You should expect that each interview will
be somewhat different. Whereas all the basic questions should be
dcovered in each interview, how these are handled will vary, some-
times dramatically. At the extreme, you may encounter a customer
who wants to discuss the topics on your guide in a different order.
So? What do you care? It was your responsibility to envision one
feasible discussion flow and to write that out as your guide. If a
particular customer drives toward a different flow, you should be
flexible enough to accommodate them. All you care about is that
somewhere during the interview all essential topics get addressed in
sufficient depth.

6. Remember that less is more in the case of discussion guides. As
you invite associates to give input, the guide may come to resemble
a Christmas tree, hung with all manner of side issues and nice-to-
know subtopics. Part of the program coordinator’s responsibility is
to keep the discussion guide within bounds. The addition of unrelated
topics, or the attempt to combine what should have been two different
research programs into one, can only impede and undercut the inter-
views. If you want simple answers to a wide variety of questions, you
probably should be doing a survey instead of customer visits. The
unique advantage of a face-to-face interview is the opportunity to
probe a few topics in depth. Your discussion guide, in keeping with
your objectives, should concentrate on those few essential topics.

7. Know your priorities. Inevitably a guide will contain some
topics and questions that are less important than others. Each team
leader should be briefed on the priority of individual topics. Sooner
or later, you will find yourself in a chaotic interview, or an interview
that has been interrupted, or one that has proven to be exceedingly
rich on an unsuspected topic. The consequence in all of these cases
is that, due to time limitations, something has to be dropped. You
want this item to be a low-priority topic and your discussion guide
should help you make this decision on the fly.

A PROCESS FOR TEAM
PREPARATION OF A DISCUSSION GUIDE

Here is some step-by-step advice for a program coordinator de-
signing a substantial program of visits involving several teams and
half-a-dozen or more participants. First, draft and circulate the research objectives, as described earlier. Once the objectives have been firmed up, convene the key players among the participants for a brainstorming session in a room with a large whiteboard or several flipcharts. The goal is to generate a large number of possible topics and questions relevant to the research objectives. Next, the program coordinator needs to sit down with this fund of topics and questions and hammer out a possible sequence. The coordinator will discard, combine, and add topics as needed to satisfy several constraints: the key information needs as indicated by the research objectives, the amount of time you expect to have available with customers, the need for a logical flow, and last but not least, the political sensitivities and team dynamics that surround the project.

This draft discussion guide should then be circulated among all participants for comments and feedback. The program coordinator then processes this information to produce a second draft. This draft may or may not benefit from being recirculated for comments at least among key participants (it depends on how messy the revision of the first draft proved to be). Next, the draft can be pilot tested on a safe local customer. In many cases, after the pilot test, the discussion guide achieves a kind of final form. Individual teams will tend to elaborate it as the visits progress; all teams will tend to streamline the guide a bit as visits and experience develop; but all teams should commit to the guide as the basic structure of each and every visit. If you confront a particularly confusing or challenging situation, it may make sense to schedule the visits in two or three waves, with a gap in between. After the first wave, the teams can be convened for a critique of the process thus far, and this may suggest a number of changes and refinements to the discussion guide and other aspects of the program.

Remember, the discussion guide is not a questionnaire, and it does not have to be executed in lockstep each and every visit. All that is important is that each visit correspond to the topics encompassed by the guide, which is only to say that each visit should address the research objectives that motivated the program. Ultimately the interviewer himself or herself is the measuring instrument; the discussion guide is simply a convenient set of advice and reminders for the interviewer, an opportunity to envision how the interview might best develop to address the research objectives.
CONSTRUCTING GOOD QUESTIONS

Your goal in developing questions is to strike a balance between preparation and spontaneity, consistency and improvisation. On the preparation side, there will always be certain questions that are central to your research objective and that will probably be asked, with little variation, in each and every interview. These questions can be worked out in advance, and you should certainly spend some time experimenting with the best way to word them. But—and this is important—you should not, and must not, fall into the trap of thinking that you must always ask each question at the same point in each interview, using exactly the same words each time. Such uniformity in question delivery is properly a characteristic of survey research, and is neither necessary nor desirable in a qualitative interview. In survey research, an essential component of the success of the national polling organizations such as Gallup and Harris is precisely the discipline and training of their workforce, which enables them to execute what, for all intents and purposes, is the identical ordering and wording of questions across all of the 1,500 people contacted. In customer visits, you are attempting something very different. You do need to think about better and worse ways of phrasing your questions, and you should always strive to avoid obviously bad wording (see following sections). However, it is not necessary, and in fact not optimal, to attempt to ask a given question exactly the same way in each interview.

Many of the best and most illuminating moments in customer visits will occur when you venture into uncharted territory. The customer will say something unexpected, the conversation will veer off into an unanticipated direction, or, less positively, you will encounter resistance or reach an impasse. It is at this point that you must come up with an unrehearsed question that seizes the advantage or releases the blockage. This is where the ability to improvise becomes crucial. The basic rules of question construction, as set out in the following paragraphs, need to be internalized sufficiently that you can act on the spot. You have to be prepared to veer away from the guide and do something more useful.

The second reason spontaneity is necessary is that every customer whom you visit will have his or her own cognitive style, unique vocabulary, and distinctive outlook. Moreover, each interview will
take an idiosyncratic course as you explore the answers to initial queries. To succeed you have to be flexible, adapting your approach, sequencing, and choice of words along whatever lines prove productive. For these reasons, excessive rigidity would be an indication that someone is not well qualified to be a moderator.

Returning to the other end of this polarity, a minimum degree of consistency across visits is required if the interviews are to deserve the name “research.” The way to balance these two criteria is to make sure that all essential questions do get asked, in some form, in each and every interview, while allowing yourself substantial freedom in terms of the point at which each question will be introduced and the way it will be phrased. After all, the employees who will be sent out on customer visits are far more highly paid than those who conduct polls for Gallup or Harris (including equipment, benefits, and other support costs, companies in Silicon Valley during 1997 might budget the cost of a single engineer at upward of $175,000 per year). It is both fair and appropriate to expect more from these visitors than the rote delivery of questions prepared in advance, even as we require of them that each and every interview address a basic core of questions.

WORKHORSE QUESTIONS

There are a small number of questions that are widely applicable to a great variety of customer visit situations, and examples are given here. As a preface, let me reiterate the importance of asking open-ended questions. Although I wasn’t present at your last customer visit, if pressed about potential shortcomings, I would bet that you asked too many closed-ended questions and not enough open-ended questions. This is one of the most common errors I have observed. All yes-no questions, and all multiple choice questions, are closed ended—you supply the answer categories along with the question. Two examples: “Do you want your printer to print on both sides of the page?” and “Do you prefer to buy at large computer stores, small hobbyist stores, or through the mail?” By contrast, an example of an opened-ended question would be, “What are you looking for in your next printer?” A closed-ended question, when asked too early in a questioning sequence, closes off avenues of discussion and steers the conversation along a preordained path. Such questions find their proper place at the conclusion of a topic, when you need to pin down
an answer. Recognize, however, that much of the real work in the interview is performed by open-ended questions that invite the customer to structure the discussion. Open-ended questions thus form an important component of the distinctive advantage of customer visits considered as a research technique.

*Identify Task Demands.* It is all too tempting in visits to focus immediately and directly on product specifications. Thus, you might be inclined to ask, "How many megabytes do you need this instrument to transfer per second?" Instead, you would be better off beginning with an analysis of task demands. What kind of data are being transferred? Where do the data come from, and where do the data go? Who produces the data and who consumes it? In other words, what business purpose does transferring the data serve, and what are the criteria for success that apply to that business purpose?

The point here is that the customer's business purpose is fundamental, not the product specification. The product will be purchased if it satisfies a business purpose, otherwise not. Hence, the most important thing is to understand the business purpose—the task the product supports—and how this purpose articulates with product functionality. Laying out the task demands, and anchoring the discussion there, is the most effective approach to understanding how product specifications may have to evolve. Again, I was not present at your last customer visit, but a very typical flaw is asking too many product-focused and not enough customer-focused questions. A focus on task demands, first, and product specifications, second, is one concrete way in which you give meaning to the quest for a market-focused business strategy.

*Understand Product Context.* Virtually all computer-related products must do their work as part of an assemblage of other products. Hardware is hooked up to networks, software runs hardware, one piece of software must speak to another, and so forth. The same sort of cross-dependencies often obtain in the case of noncomputer products. It follows that your product will succeed or fail in part based on how well it fits into the matrix of surrounding products. Thus, understanding product context is yet another example of a questioning strategy that is focused on customers. To you, your product is the be-all and end-all. To the customer, it is just one of several tools assembled to accomplish some business purpose.
Identify Unsolved Problems. Many customer visit programs are motivated by the desire to identify customer needs that could be profitably filled. It would seem natural, therefore, to ask some question such as, "What are your needs with respect to this product?" The problem with this phrasing is that it presumes that customers carry around in their heads a list of needs that they can easily access when prompted. In actual fact, perhaps only product developers carry around need lists in their heads!

A more powerful approach to identifying unmet needs is to ask something like, "What problems have you been unable to solve with this product?" Customers most definitely carry around an inventory of complaints, shortcomings, frustrations, obstacles—and the energy to discuss these in depth! This approach to identifying needs through a discussion of unsolved problems places the burden of insight on the vendor. Based on the customer's problem description, you must infer the nature of the underlying need, and then relate this inferred need to the various technologies at your disposal. Multiple competing inferences may be possible, and each step in the chain of reasoning is vulnerable to blockage. So be it. It is an illusion to suppose that you can visit customers and have them hand you the specifications for the profitable product you ought to be building. It isn't that easy.

A summary statement on this issue would go something like this:

- The customer is the authority as to the problems they are trying to solve.
- The vendor is the authority as to what form a profitable solution to that problem might take.²

Of course, once in a while a customer may toss off a useful and valuable solution that you can easily implement. By all means, take advantage of these suggestions. But recognize that most of the time, the highest and best use of the customers' time is to have them explain the problems encountered as they attempt to do their job using your product.

Identify Likes and Dislikes. When there is an existing problem or solution, customers almost expect you to ask this question. Asking what they like and what they dislike is an efficient means of unpacking their experiences. Also, you earn points by asking about dislikes and listening in an unflinching and receptive manner to the answers.
The like-dislike question is treated very differently in customer visits as compared to its usage in surveys and questionnaires. In surveys, you attempt to quantify the strength of the positive or negative reaction to each item in a list. These items may then be summed, or factor analyzed, or otherwise treated statistically. The list of items is determined by you and constitutes a kind of closed-ended question. In customer visits, the like-dislike question functions as an open-ended question. The goal is to identify what is liked and what is disliked, to understand in depth what exactly is being approved or disapproved, and to explore why an aspect is liked or disliked. You want to understand the qualities that characterize customer responses, not fix their quantities.

Probing is particularly crucial in the case of the like-dislike question (the next chapter discusses probing in more detail). After the customer volunteers one like or dislike, it is important to follow up and ask whether there is another. As you can imagine, sometimes vendor personnel shrink from this additional probing in the case of dislikes! Your goals with this kind of question are to discover likes and dislikes that are new to you and to better understand the meaning of the likes and dislikes with which you are already familiar. Thorough probing is required to achieve this goal.

**Force Trade-Offs.** Often customers will express a desire for two pieces of functionality that conflict. This is one of many good reasons to include technical people on the visit team—technically knowledgeable visitors are more likely to realize that yes, we can solve this problem for the customer—but only by degrading performance in this other area! The question becomes, which desire is more important to the customer? It is a good idea to attempt to force trade-offs in this situation. Much can be learned as the customer thinks out loud about whether advancing on one front is worth a setback on another. You may gain further insight into the customer’s hierarchy of preferences and primary motivations.

Sometimes the customer will vigorously push back and refuse to make a trade-off—he or she demands that the product accomplish both aims equally well. You know that this is not technologically possible. What should your takeaway be: (a) that the customer is an impossible person, or ignorant; or (b) that this customer’s resistance might indicate an opportunity for technological innovation? To follow up on this point, imagine visits paid to printer users in the early
1980s. Very likely, some of these customers would have demanded both print quality (then only available from daisy wheel printers), and print speed (then only available from dot matrix printers), refusing to compromise on either count. As we all know, when later the laser printer became possible, it swept the other partial printer solutions away in part because it eliminated this trade-off. Moral of the story: Don’t cavalierly dismiss customers who refuse to make trade-offs.

*Push for Priority.* A good open-ended question, especially one concerned with future products, may easily produce a dozen or more responses. The customer may indicate he wants this, he wants that, also this other thing, and on and on. Once you have elicited all of the responses that the customer has to offer, it is appropriate to ask about the relative priority placed on each problem or wish. However, given a dozen or so responses, it will not work to ask the customer to rank order these from 1 to 12. Most people can’t maintain a mental rank ordering of that level of complexity, nor can they apply one on the fly to a dozen freshly generated items. Two common workarounds are,

“Of all the things you mentioned, what are the top three or which three are most important?”

“If you had $100 to spend on all these desires, how would you allocate the $100 across them?”

The first of these is simpler, and it is perfectly adequate for determining what is critical and what is not. The second is more powerful because it yields more information, in that it gives both a rank order and information on the distance that separates ranks (a response of “$50 on A, $40 on B, and $10 on C” indicates not only that B is more important than C, but also how much more important it is). However, the second version presumes both a high degree of involvement on the part of the customer and a precise habit of mind. Either version will work much better if you have brought along a supply of 3” × 5” cards on which you note the individual problems or desires elicited in the first part of this questioning sequence. Having the customer move these around on the table as they settle on a rank order will facilitate the task.
Whenever you push for priority, your next question should always be some version of "why"—why is X more important than Y to this customer? There is little point in using customer visits to generate an average rank order of problem importance across customers—the small sample size and nonrandom character render such averages dubious at best. The point, rather, is to explore the motives that led this customer to rank the items in this way. The request for priorities simply provides another route for exploring this customer's thought world. Thus, it is not uncommon for customers to produce a "top three" containing one or more items that were not even mentioned during the open-ended elicitation (these might be more abstract concepts produced as the customer struggles to make sense of his own replies). Ultimately, just as the presence or absence of certain problems helps to define this customer's world, so also the relative importance of certain items carries information about the customer's worldview. And that worldview is what you are after on these visits.

**SPECIALIZED QUESTION STRATEGIES**

These next few questions will be relevant to some investigations, but not to most. They are useful enough, often enough, to be worth discussing here, and may stimulate you to think of even more specialized questions germane to the particular project you are considering.

*The Critical Incident Technique.* Consider the following question, which was proposed as part of an investigation of hand-held "personal information appliances." The project team reasoned that frequent business travelers would be a primary target for this handheld product, and proposed to visit a sample of these travelers and ask questions such as,

"When you first arrive in a strange city, what kind of information tends to be lacking?"

At first glance, this may seem to be a reasonable sort of open-ended question, one that would allow the customer the freedom to mention virtually any kind of missing information. On closer inspection,
however, it can be seen that this is really a very difficult question. It requires the customer to go into long-term memory, pull together that category of events known as first-time arrivals, focus in on the particular aspect referred to as missing information, and then extract from that assembly a typical instance. This is very hard cognitive labor!

Using the critical incident technique you would rephrase the question as follows:

"Think back to the last time you arrived in a strange city—were you missing any piece of information?"

The preface, "Think back to the last time . . . ," is characteristic of the critical incident technique. It focuses the customer on one specific and relatively recent event, making information retrieval easier. You can then follow up with one or two more probes of this sort ("How about another time you visited a new city?"). At that point, the whole category and its various aspects have been cued up in memory, and a question such as "In general, what kinds of information have been lacking?" will now work well. The critical incident technique is very flexible and can be applied to many targets ("Think back to the last time your system crashed—what process did you go through to bring it back on line?"). Consider using this technique whenever you want to discuss a whole category of past events in some detail.

The Image Question. A question that won’t be effective with every customer, but that may sometimes be useful in helping people vocalize tacit reactions, is to ask about the images they might have in some situation. For instance,

"You’ve just received the disks needed to upgrade your network operating system to the next version. What images might be passing through your mind as you opened the package?"

When it works, this question will unearth responses such as, "I wondered if this upgrade was going to require another all-nighter like the last one"—vivid, emotionally charged recollections. It has to be used with care, however; some customers will give you a look that says "What kind of crazy question is that?" whereupon you can fall
back to the more safe, "I mean, what thoughts or feelings might pass through your mind in that situation?"

Ask About the Customer's Customer. In B2B markets, most of your customers will have their own customers to satisfy, even if this is simply another group within their own organization. A good way to expand the focus of the visit outward from narrow product details is to ask your customer, "Who is your customer, and what do they require of you?" This is yet another way of focusing the visit on the broader business purpose that your product serves. As a general rule, if you can more effectively help your customers to satisfy their customers, you will satisfy and retain your customers. This question makes the value chain, in which both you and your customer participate, salient and accessible to discussion.

EFFECTIVE AND INEFFECTIVE QUESTIONS

If the first requirement for success in asking questions is recognition of the need to balance consistency and spontaneity, the second requirement is understanding that you can usually obtain valuable information merely by avoiding the worst flaws in question delivery. In other words, you don't have to be a terrified, smooth, articulate, and poised interviewer to succeed in customer visits. It is enough that you avoid the more egregious errors. Such mistakes can be grouped under two headings: (a) unclear and (b) inappropriate questions. A third requirement for success is accepting that whereas a minimum level of interviewing skill can take you quite far, the ceiling in terms of interview skill is very high. You can spend your entire working life getting better at asking productive questions.

Unclear Questions

Perhaps the most common cause of lack of clarity is a question that is too long, or whose syntax or clause structure is difficult to process. We tend to forget that what can be processed through the ear is far less than what can be processed through the eye. A question that might just be comprehensible if delivered in writing is likely to be beyond the pale if delivered orally. As a rule of thumb, you may
assume that any question that, if written, would be punctuated with a semicolon is almost certainly going to be unclear.

Sometimes a question becomes unclear because it is forced to do too much. A typical response of someone new to interviewing, who is experiencing anxiety and fear of failure, is to attempt to ask "the perfect question." For example: "Assuming we make the changes you requested, and assuming that the national economy recovers in the third quarter, and given that our leading competitor does not change its price-performance ratio, what will the timing look like on your upgrade of this system?" This question may be "perfect" in the sense of covering all relevant contingencies, but it is unanswerable! You should apply the KISS principle here: keep it short and simple. When you must address a complex issue, build up to the crucial point using a series of relatively short and clear questions.

Yet another condition that tends to produce unclear questions is the failure to use visual aids where appropriate. It is far easier to clearly and efficiently probe responses to a new product concept or other initiative if you can point to a picture as you focus on the details. To think that you can deliver an oral description of something complex and novel, and then ask productive questions about the details of what you just described, is absurd—it ignores the very real limits of attention and information processing in human beings. A better idea is to bring diagrams, flowcharts, and other graphic representations whenever you are discussing a system or process. By the way, it is important that these graphics not appear overly slick. The more finished these graphic aids appear, the less inviting they are to comment on, critique, or edit. You want something that looks relatively preliminary and rudimentary. This sends a message to customers that their input is welcome, even necessary, and will have an impact. Too slick a graphic sends the opposite message—we have already decided, you have no role.

Do not limit yourself to graphic visual aids. It can be very helpful when discussing a product concept to slide across the table a page containing four or five key points that outline the essential features of the concept. Although it is still a good idea to describe the concept orally, the ensuing discussion will benefit in two ways. First, you can point to specific items and invite a detailed response focused on that item. Second, the written summary makes it easier for the customer to grasp the concept as a whole and makes it more likely that they will comment on interconnections between aspects of the concept.
Prepare a Discussion Guide and Construct Good Questions

Most interviewers, even veterans, ask unclear questions from time to time. Occasionally, it is simply a matter of not being able to accommodate a particular customer whose style of thinking happens to be quite distinct from your own. Good interviewers will quickly notice that they have asked an unclear question and do their best to correct the situation. Here, a little self-deprecating humor, or a graceful acknowledgment of having erred, will often allow you to recover.

Inappropriate Questions

Any question that obscures the truth, produces inaccurate responses, or leads to misunderstanding may be considered an inappropriate question. In my experience, such questions tend to come about as a result of (a) your emotions getting the better of you or (b) bad faith on the part of one or more team members. The most important categories within this classification are leading and biased questions.

A leading question is one that makes one response from the customer more likely than another. Such a question is fundamentally manipulative. As a general rule of thumb, any question that begins with a negative contraction is probably a leading question. For example, “Don’t you think that Windows NT has gained the upper hand over Unix?” or “Isn’t it the case that maintenance costs far outweigh the initial purchase price?” Such questions put words into the mouth of the customer. In all probability, your own need for reassurance or confirmation is the underlying cause. But it is important to recognize that such attempts to cue a particular answer undercut the whole rationale of customer visits, which is to create an arena in which discovery and new learning can occur.

A biased question is one that indicates that you already know the “right” answer, or that you are simply seeking confirmation for what you have already decided to be the case. Biased questions can be even more off-putting to the customer than leading questions. They suggest that the interview is not really an attempt to listen, but simply a pro forma exercise. If the customer perceives questions as being biased, he or she is likely to grow cynical and to withdraw from the interview. Some examples of biased questions would be: “Our lab is really excited about this idea. What do you see as its advantages?” or “We know that Acme’s ads irritate people. What do you think is their most bothersome feature?” or “Our studies show that the whole
industry is moving in this direction—what is your time frame for making the change?"

The underlying cause of biased questioning is typically a defensive attitude around some decision that the interviewer favors, some pet peeve of a team member, or a gambit within a larger political agenda (i.e., a team member may have lobbied for inclusion of some feature in the product and is seeking support for this preference from the customer). If you do find yourself or your team asking leading or biased questions, you may attempt to recover using the same grace and self-deprecating humor as suggested earlier in the discussion of unclear questions. However, I am less optimistic that you will succeed. Leading and biased questions really are poisonous to the sort of interview atmosphere that a good customer visit requires. They are strongly alienating to the customer, in part because they make a mockery of your promise that the purpose of the visit is to listen and learn.

There is also a more subtle kind of biased question that you should guard against. Suppose, for instance, that you ask a customer what they like about a new concept. You phrase it as an open-ended question, and you probe diligently after the initial query. Suppose also that you never turn around and ask what the customer dislikes about the new concept. Then, despite good intentions, you will have pursued a biased line of questioning. The bias lies not in the phrasing of the individual queries so much as in the selection of which questions to ask and which to avoid. The likely result is that you will return from the visits with an unduly positive model of customers’ responses to the new concept.

In reflecting on the difficulty of avoiding these more subtle kinds of biases, you may come to understand why it is so important to conduct customer visits dedicated to research and free of any pressure to sell. If your visit had to serve a double agenda, both your choice of questions and the wording thereof would be constrained. It is, after all, common practice in selling to ask a series of questions, all of which must be answered "yes," in order to build commitment to a viewpoint. Similarly, many sales encounters are designed to create a positive, upbeat atmosphere. And, competent salespeople know how to anticipate and overcome objections. But in a research visit, you don’t want to overcome objections; you want to identify and understand them.
Productive Questions

Although it is important to avoid fatal flaws in question delivery, you should also actively seek the most productive questions possible. You know you have asked a productive question when the customer has to stop and think, not because they are stymied but because the question both requires and deserves a thoughtful answer. A productive question is one that matches the customer’s orientation (as opposed to questions that are opaque because they use language or rest on assumptions that are foreign to this customer). Productive questions typically open up new avenues of discussion. A productive question takes advantage of the unique motivational potential of an in-person interview as opposed to a phone or mail survey. An interview is motivating because questions are asked by a visitor who really seems to care about the answers and who is sufficiently knowledgeable to understand a complex answer. A customer is going to be willing to work much harder to answer questions from a key decision maker than questions from an anonymous individual with minimal involvement in the issues, who is largely following a script and is present only as a disembodied voice on the phone. Any question that effectively takes advantage of this motivational aspect of the interview may be deemed a productive question.

A productive question asks the customer to think, to draw connections, to explain, or to give the big picture. It is difficult to be more precise about productive questions; one of their key characteristics is that they are tightly tied to the context of a specific interview and as varied as the topics pursued. It is possible, however, to point to two common ways of failing to ask a productive question: the too-easy and too-hard questions. A question is too easy when it can be answered yes or no, answered from memory, or answered from conventional wisdom. Whereas you will certainly have to ask some easy questions during customer visits, these properly belong to survey research. If most of your questions can be answered yes or no, or with a phrase or two, you probably ought to use some other research technique such as a questionnaire. At the other extreme, questions that are too hard are also not productive. Examples would include questions that demand knowledge the customer does not possess, demand a level of analysis that is impossible without patient reflection over a sustained period, or demand that the customer use
concepts that are unfamiliar. Questions are also too hard when they are not obviously relevant to the purpose of the interview. An example of a question that often fails to be productive is “Describe the ideal or dream instrument for this application.” From the customer’s standpoint, the “ideal instrument” doesn’t exist, isn’t likely to exist, and probably would cost too much anyway. Hence, what is the point of trying to answer this question? Besides, thinks this customer, isn’t it the vendor’s responsibility to come up with bright new ideas? A more productive question might be, “Are there any measurements that you would like to take, but which this instrument does not permit?” A focus on a specific gap is more likely to be productive than an invitation to dream.

Specific Questions to Avoid

Here are three questions that often come up for consideration when preparing for an interview:

1. What features would you like to see in this product?
2. How much would you be willing to pay for a product like this?
3. Where do you see this technology going over the next five years?

At first glance, Question 1 would appear to be a reasonable attempt at asking an open-ended question. The first problem is that features represents marketing jargon. Although people who plan products have to make lists of features, what customers care about is how the product can help them perform some task. A better approach is to focus directly on the task that the product performs, and to probe for aspects of that task that are not being handled effectively, or perhaps not addressed at all. The second difficulty with this question is that it tends to produce unrealistic wish lists. Ultimately, the question rests on the dangerous fallacy that the customer can tell you what to design. No: In most cases the customer can only tell you what task they are trying to accomplish and what obstacles they have encountered. The goal in visits is to make certain that the design engineers who are responsible for developing your technology are intimately familiar with the customer’s task demands. You want to bring these people face to face with customers, so that when they return to the lab they can say, “Well, if that’s the problem they have, then any solution must have the following characteristics . . . .” The responsi-
bility for technological invention remains the vendor's; what the vendor hopes to get from the customer is a sense of the problems that most need to be solved.

The problem with Question 2 is that it converts the interview into a negotiating session. If the customer wishes to behave in a rational and self-interested fashion, he or she has to either give a lowball estimate, or refuse to answer. Interviews may be the world's worst technique for doing pricing research! Good pricing research requires an experimental design in which choices are made among different product profiles priced at different points. The best that one can do in an interview is identify substitutes for the product or service (the cost of these substitutes provides an indirect estimate of the value the product or service provides), or identify the benefits of the product in sufficient detail that you yourself can compute the value provided. Alternatively, you can name a specific price (only one; a second price moves you into haggling and away from research) and see how the customer responds. If you know that a tentative price has been set, mentioning it can be a useful disaster check (as when the customer replies, "I can buy two of the competitors' old model instruments for half that figure and get the job done more or less as well!").

The problem with Question 3 is that it assumes that the customer is as fascinated by, and familiar with, the technology that underlies your product as your design engineers are. Asked "where the technology is going," an ordinary user might well reply, "if I knew the answer to that question, I'd be working for you!" If you want to ask that question that way, then you can't visit ordinary users—you must seek out opinion leaders, industry experts, power users, and so forth. If you need to visit ordinary users, then you must rephrase the question. Try one of the following:

"What problems are you unable to solve with current technology?"
"Is there anything your customers have started to demand that you don't know how to supply using current technology?"

Each of these alternative phrasings returns the focus to matters on which the customer is an expert—the obstacles and difficulties of doing a job with what is currently available. It remains your job to reason how technology must evolve, given the pressing business
problems faced by your customers. It is unrealistic to suppose that ordinary customers can draw that connection for you.

THE IMPORTANCE OF FOLLOW-UP

The gist of this chapter has been the importance of working out your questions in advance, getting the wording right, and avoiding common pitfalls. Preparation of this kind will make your visits more productive. I should acknowledge, however, that much of the real work in interviews happens after you have asked a carefully phrased, well-formed question. As often as not, the customer will give you a vague, general, or partial answer in reply. You must recognize that your question has not really been answered and follow up with additional questions to more fully unpack the customers' response. These questions must be developed on the fly; in many instances these follow-up questions will be some form of "Could you give me an example?" "What specifically was the problem?" "What caused that to happen?" "Then what happened next?" "What other reasons?" (See the next chapter for more on the topic of probing). It is the opportunity to clarify answers and pursue a lengthy line of questioning that underlies many of the distinctive advantages of interactive face-to-face communication. Do not fall into the trap of assuming that there exists some set of questions that, without further effort on your part, will unlock everything the customer has to offer on a topic. On the contrary, in most cases your performed questions only initiate a dialogue, which only later yields the richest material.

TIME FRAME

Setting objectives, selecting and recruiting a sample, organizing and briefing teams, and preparing a discussion guide are the necessary preludes to a productive customer visit. For planning purposes, you should allow for 4 to 8 weeks to elapse between the moment the idea of visiting customers dawns on you and the day the first visit of the program takes place. More specifically, 1 to 2 weeks will be required to get agreement on objectives, and 1 to 2 weeks to devise and finalize a sample frame. You will probably have to schedule
interviews 3 to 4 weeks ahead. Team selection and preparation of the discussion guide can go on in parallel with recruiting.

NOTES

1. The books on focus groups by Goldman and McDonald (1987) and Greenbaum (1998) can be consulted for examples of discussion guides and additional advice on their preparation.

2. For a rather different approach to this problem, see Von Hippel (1987).

3. Lynn Phillips and his consulting firm have built an entire approach to visiting customers from this key question. Although to my knowledge no definitive published account of their approach exists, some idea of it can be gained from Guillart and Sturdivant (1994).

4. Note that this position is at variance with that of Von Hippel (1987), who argued that lead users are often the best source of innovative solutions. I believe Von Hippel is correct in the case of some industries, and I would urge you to be attentive to any user-designed solutions that you encounter during your customer visits. But as a general rule, I think the customer can only specify the need, whereas the vendor must develop the specifics of the solution.

5. See Simon (1989, 1992) for advice on pricing research.