
KNOW YOUR AUDIENCE

It may be bold to say, but understanding your stakeholders is more important than understanding a whole list of requirements and analysis techniques. If you know the motives of everyone on your project, along with their skill sets, most of the questions about how to elicit and represent requirements will be answered for you. It is critical to know your audience because the most important skill of a business analyst (BA) is effective communication. To be most effective, communication should be tailored to and for each person with whom you communicate.

The Project Management Body of Knowledge (PMBOK®) defines stakeholders as “persons and organizations . . . actively involved in the *project* or whose interests may be positively or negatively affected by the execution or completion of the project.” *To a BA, a stakeholder is anyone who may contribute to or have interest in the requirements.*

The best way to understand another person’s communication is to understand his or her motives, personal biases, expertise, and experiences. The more you know someone, the easier and faster ideas can be communicated. A BA must listen carefully to stakeholders. This listening is active; it involves asking well-thought-out questions, listening to responses, and then following up to clarify understanding. A BA also must be able to present the business needs clearly to the solution team and work with the team to develop the best solution design. Presenting requirements clearly and accurately also can be done

more efficiently when you know the characteristics of the person with whom you are communicating.

To tailor the communication, you must really know your audience. Every book and article about requirements uses the words “it depends” and “use the best technique to communicate with your audience.” These are very frustrating answers for new BAs who are trying to learn how to do their job. Even when a new BA asks an expert BA “How should I get this requirement?” the answer often is a hesitant response. The senior BA may be thinking about all of the possible options and results and is also probably thinking about the audience. If the senior BA doesn’t know your stakeholders, it will be difficult to give you advice.

This chapter discusses the project members with whom the typical BA works. It discusses how and why you must learn as much about each of them as you possibly can. This is an area where the project manager and BA should work together very closely. Clearly understanding the project members is critical to the success of both the business analysis work and the project as a whole. Figure 2.1 shows the common roles with whom a BA works.

ESTABLISH TRUST WITH YOUR STAKEHOLDERS

As a BA, you have very little formal control or supervisory authority over the people with whom you will be working. Your best chance at successful requirements elicitation and solution identification will be your stakeholders’ confidence and trust in you. They should trust that you will always treat them with respect and kindness. They should trust that you will always treat them fairly.

You establish trust with people by getting to know them and always behaving with integrity. Acting with integrity as a BA means doing the things that you promise to do, always dealing honestly and directly, and being consistent. You gain trust from people not by asking for things from them but by asking what you can do for them. You earn trust when you answer questions honestly even when you know that the listener won’t like the answer.

Stakeholders must trust that you will not use the information they provide to you in any way that would harm them. Infor-

BABOK Connection	
Knowledge Area	Task/Technique
Underlying Competencies	Behavioral: Trustworthiness

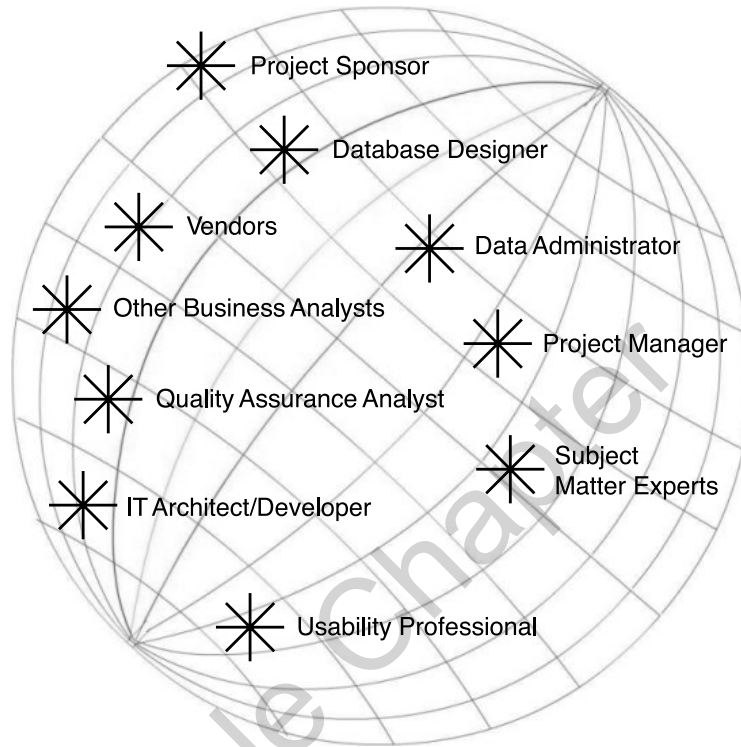


FIGURE 2.1. Business Analyst Universe of Roles

mation is very powerful. People who control large amounts of information have a responsibility to treat it with respect. You are going to be gathering and compiling large amounts of information. You will be learning about what other people's jobs are, how they perform their jobs, what problems they have, etc. How you use the information and how you represent your sources will tell your stakeholders about your integrity and your professionalism. Some information must be kept confidential for political or legal reasons. In this respect, your job is a bit like that of a journalist. Protect your sources and they will be willing to provide you with information again in the future. When you receive information "off the record," keep it to yourself. If you misuse your sources, you may have a tough time restoring trust on future projects.

WITH WHOM DOES THE BUSINESS ANALYST WORK?

Each stakeholder plays a role in each project. Although each organization and each project is different, there are several common roles with which the BA will be working on a regular basis. The most common roles are:

- ♦ Executive or project sponsor
- ♦ Project manager
- ♦ Other business analysis professionals
- ♦ Subject matter experts and users
- ♦ Quality assurance analyst
- ♦ Usability professional
- ♦ IT architect
- ♦ IT developer
- ♦ Data administrator/architect/analyst
- ♦ Database designer/administrator
- ♦ Vendor

BABOK Connection	
Knowledge Area	Task/Technique
Business Analysis Planning and Monitoring	Conduct Stakeholder Analysis

Executive or Project Sponsor

The sponsor is effectively the “boss” of the project. The sponsor has secured funding for the project and has specific objectives for the funds. The sponsor determines the success of the project based on how well it meets his or her objectives. Although you may not report to the executive sponsor in your organizational structure, he or she will make a judgment about how well you did your job and can be instrumental in your career success. The most important thing for you to learn about the sponsor is why he or she wants this project done and what his or her success criteria will be. The answers to these questions are part of the project initiation or project scope phase of a project. At the beginning of a project, you may be working with a project manager (PM) or you may be working alone. Either way, your main goal is to gain a thorough and complete understanding of *why the organization has decided to spend money on this project and why the sponsor is spending his or her budget*. This will be discussed further in Chapter 3.

In a capitalistic society, most organizations are trying to increase profits, decrease costs, or improve service. In corporations, profit usually drives decisions. In government agencies and non-profits, costs are usually paramount. Therefore, ultimately, every project

is undertaken with a financial goal. This will be discussed in Chapter 3. The sponsor knows the organization's goal for the project and is the person who will ultimately decide whether or not the project succeeds. All of your communications with the sponsor should be from the sponsor's perspective and should always be focused on that ultimate goal.

The biggest mistake that can be made with a sponsor is to spend his or her limited time listening to excuses and problems. The sponsor wants to know what can be done to get things back on track and what he or she can do to influence the correction. Knowing what the sponsor is looking for gives you a great advantage. Having a solid relationship with the PM and the sponsor makes it likely that you will be able to get the resources you need to complete your work. This is where your reputation for honesty and integrity really gets you great results.

Sponsors often want *executive summaries*. Executives are too busy to read long detailed reports and want the BA to “cut to the chase” and give them the highlights. This can be difficult for BAs because of their attention to details. This is where you need to use conceptual thinking. The most important question to answer in the executive summary is:

Is the project still going to provide the profits or cost savings goals that we intended?

When you and the PM talk with the sponsor or provide any written status reports, always answer that question. If the answer is “No, the project is not going in the direction intended,” then you must tell the sponsor what is needed to get the project back on track. Most of the time, sponsors don't want the details of why things are not going as planned.

Case in Point: Giving the Sponsor Bad News

A few years ago, I consulted with an organization as a PM/BA to manage the implementation of a vendor-supplied software package. The IT director explained to me that the package had already been selected, the contract had already been negotiated and signed, and they needed me to coordinate and oversee the implementation of and training for the new software. It sounded pretty straightforward to me. As any good PM does, I immediately set about building my work breakdown structure, identifying and learning about the tasks that would be necessary for a successful and smooth implementation.

Since I had worked on package implementations before, there were many tasks that I could assume would be necessary. But a good analyst never assumes anything, so I began introducing myself to stakeholders and asking if my assumptions were correct. One of the

first people with whom I spoke was the network administrator, Jeff. I wanted him to help me determine how big an impact this new software would have on the network and estimate how long it would take to install and set up individual access.

His first sentence was a huge clue to me that this was not going to be as easy as I hoped: “What new software?” Apparently the selection committee had not included the network administrator when choosing this package. He quickly asked me a few technical questions about the package and its network abilities and requirements. In less than 10 minutes, he concluded that this particular software package would not run on the company’s network. Period—end of discussion—not compatible.

I would be lying if I didn’t admit that one of my first thoughts was “Well, there goes my consulting contract!” I asked Jeff a few more questions about how we might make this package work and if he could think of any options. Setting up a brand new network for the users and working with the software on stand-alone machines were the only options that we could come up with. Neither could be supported by the current IT staff.

I had to report to the director and the business people that the package selected was not the right choice for the company. Being the bearer of bad news sometimes falls to the PM/BA. In this case, I was telling them that the person who had headed up the selection committee had not done his job well and that we had no plan for implementing the software which had just been purchased. The managers and business subject matter experts were very disappointed and upset. The selection committee had spent several months making this recommendation and the software functionality was desperately needed. Now we would have to start all over with package evaluations. No one wanted to tell the sponsor. I offered to meet with him. (Being an outside consultant, my only risk was losing my contract.)

I am often amazed at the reverence with which we treat our corporate executives. They are human beings just like the rest of us. They have good days and bad like everyone else. They just tend to look at things from a higher perspective and often make decisions faster than other employees. Once we had decided that I would tell the sponsor, Ben, everyone came into my office telling me everything that they knew about him. “Ben is a great guy; he just gets angry sometimes.” “Ben is very quiet; he may not say anything to you.” “When are you going to see Ben? Are you nervous?”

The climax of the story is really anti-climatic. Ben was a very nice, soft-spoken man who enjoyed golf and had two children. His office was nicely furnished with a few golf pictures. Since I play golf, I felt comfortable asking him where and how often he played. I really believe that in most interactions with people, a brief conversation about something

other than work relaxes the situation and puts things in perspective. It allows people to let their defenses down and be open to the conversation.

Ben invited me to sit down, which usually indicates that the stakeholder is ready to get into the business conversation. I told him about the software/network problem. I gave him a brief, clear statement of the problem. He sat silently, thoughtfully for a few minutes, and I waited patiently for the news to be processed. His next question, as expected, was “Is there anything we can do?” I told him about the possibility of a separate network or stand-alone machines but admitted that they were not really good ideas. He shook his head in agreement and simply said, “Well, we’ve got to break the contract, get our money back, and find another package.” And then I was excused. This was an excellent sponsor—he accepted the reality of the situation and was able to quickly go to the next logical step. My contract was extended to include selection of another package, contract negotiations support, and implementation.

When communicating with sponsors, brevity is the key. Be brief and to the point. Stay at a high level, supplying details only when necessary to make a point. Be concise, clear, and respectful of their time. They want to know what the bottom line is.

If you feel intimidated by your sponsor, you may not be able to ask good questions and get the information that you need to be successful. Take opportunities to talk with executives whenever you can. You will discover that they are people just like the rest of us. Put yourself in the sponsor’s position and tailor the communications appropriately.

Project Manager

Project management is well recognized as a critical skill needed for business and software development projects. Although PMs have long been appreciated in fields like building construction and engineering, it has only been in the last 15 to 20 years or so that IT organizations have truly realized that their projects need managers who are dedicated to managing them. Most organizations have also learned that a great PM doesn’t necessarily have to be a great technician. The growth in popularity of the Project Management Institute’s PMP® certification in IT departments demonstrates this realization. Most large organizations also have a project management office where PMs are supported and project management methodologies are administered. The growth and recognition of the role of the PM are the same growth and recognition which are expected for the role of the BA in the next 10 years.

A PM is responsible for managing a project and making sure that it meets its objectives. The PMBOK defines project management as “. . . the application of knowledge, skills, tools and techniques to project activities to meet project requirements.”

Project management and business analysis are two distinct professions with two intersecting skill sets. Project management work includes identifying project requirements, establishing measurable objectives, and managing the resources, time, scope, and quality of a project. There is overlap with the work that has been defined as business analysis work. In many organizations, PMs have actually been expected to do all of the project management work in addition to all of the business analysis work. Most PMs in this situation are overwhelmed and sometimes projects are not successful. Statistics prove that poor requirements are the main cause of failed software development projects and reflect the fact that requirement elicitation and analysis are not assigned to a dedicated, expert resource (Standish Group, 2006).

How do a PM and a BA work together to make a project a success? Fundamentally, the PM manages project *resources* (people, money) and the BA manages the *requirements*. The BA reports to the PM on his or her progress on the tasks in the work breakdown structure related to requirements. Usually at the beginning of a project, the PM and BA work very closely together, often working on the same tasks. Later, as the project gets going, they each focus on their particular responsibilities and talk together frequently to share their progress. Excellent PMs and BAs will work hand in hand to make the most of each other's strengths.

It is the healthy tension between the PM and BA, the PM pushing to move forward and the BA cautiously wanting to gather just one more detail before going forward, that makes the combination so successful together. They are interdependent because their goals are in conflict.

Why Does a Project Need a Project Manager and a Business Analyst?

There are many projects where one person is assigned to act as both the PM and the BA. This is common and probably appropriate on small projects or when an organization is short-staffed. Unfortunately, it is also common in organizations where there is a lack of understanding of the BA role and where the expectation is that business analysis is just another task a PM performs.

Leading organizations have come to understand that having both a PM and a BA professional is critical to a project's success. These two roles, working together from the

beginning of a project, set the stage for success by planning accurately and clearly defining the expected outcomes. Both roles are required because each is responsible for a different set of tasks and each possesses a set of skills that complement the other. Each role provides specialized capabilities that can make the difference between a project that succeeds and one that struggles or fails.

PMs and BAs each have unique skills and knowledge areas that, when used together, produce a high-quality product. They both want the project to be successful and want to satisfy their customer—the sponsor. They both understand the ultimate goal of the project: to meet the project objectives. They each work on their own tasks within the project to achieve these objectives. There are some areas of project work where the PM and BA work together or back each other up. There are many other areas where the two individuals diverge and do very different types of tasks.

BABOK Connection	
Knowledge Area	Task/Technique
Business Analysis Planning and Monitoring	Plan the Business Analysis Approach

Project Manager and Business Analyst Skills Comparison

Common skills: One of the reasons why many organizations assign one person to act as both the PM and the BA is that people who operate well in these two roles have many skills in common. Both the PM and the BA must have very strong communication skills. This is probably the most important skill needed to operate effectively in either role. Individuals in both roles also must have an understanding of how projects are accomplished and an awareness of the methodologies and approaches to designing and developing software solutions. Because both roles are often responsible for bringing together groups of people, negotiating, and gaining consensus on how a particular solution will be implemented, they require an individual who has strong interpersonal and client management skills. These skills are actually useful in many careers.

Unique skills: There are also unique skills for PMs and BAs that allow them to perform the unique tasks for which they are responsible. PMs need to be able to see the “big picture” for a project. They must be able to see how all of the resources working together will accomplish the ultimate goal. Although this “big-picture” view is useful for a BA, it is more important that the BA is a very detail-oriented person. He or she must be very skilled at listening, analyzing, and documenting exact details about business processes,

data, and business rules. The PM *builds* the work breakdown structure for the project, whereas the BA *performs* some of the tasks within the work breakdown structure.

Similarities and Differences between the Two Roles

The PM is responsible for ensuring that the product is delivered to the customer *on time* and *within budget*. The BA is responsible for ensuring that the product is *built according to the requirements*. This difference in focus is the reason why having both roles on the team is critical. The product will be built correctly, according to requirements, on time, *and* within budget!

Role of Project Manager

- ◆ Usually the first person assigned to a project
- ◆ Responsible for planning the project and ensuring the team follows the plan
- ◆ Manages changes, handles problems, and keeps the project moving
- ◆ Manages people, money, risk, and project scope
- ◆ Chief communicator of good or bad news to the sponsor and management
- ◆ Helps clear obstacles

Role of Business Analyst

- ◆ Usually assigned to a project after it has started
- ◆ Responsible for bridging the gap between the business and IT
- ◆ Learn the business needs and environment in detail
- ◆ Essentially the architect of effective business systems

Dynamic Duos

When assigning PMs and BAs to a project, executive management should be aware of the importance of this dynamic duo. Their success depends on their respective experience, knowledge, and skill sets. The results will vary depending on the individuals selected.

If a strong PM is assigned to work with a weak (inexperienced, unskilled, or insecure) BA, the requirements gathering and analysis tasks may be rushed and important requirements may be missed. The PM will be pushing for the project to make progress, and the BA will not be strong enough to convince the PM that complete, accurate requirements

are critical to project success. This may result in rework late in the project when the missing requirements are identified. Rework may result in schedule and budget overruns.

In the opposite situation, if a weak PM is assigned to work with a strong BA, too much time may be spent in requirements gathering and the project will fall behind schedule. BAs want to get every single detail 100% correct before moving forward, and if the PM lets the BA try to accomplish this virtually impossible task, the schedule will be jeopardized. Also, if the PM does not strictly enforce the change control procedure, the BA may allow business people to add more and more requirements, resulting in “scope creep” and project delays.

Obviously, the worse-case situation is a project with a weak PM and a weak BA. No matter how involved the subject matter experts are, and how good the technical team is, a project is likely to fail without strong leadership and clear requirements.

Therefore, the best-case situation is a project with a strong PM and a strong BA. Assuming the rest of the project team is competent, this project will be well run and the end product will be of the highest quality. There is a great balance between thorough requirements gathering and project progress. The project will be on schedule and meet the expectations of the sponsor.

The PM is much more of a *director* than the BA is. The PM directs the project team, making assignments, giving specific directions, and making sure that the team members are working on the appropriate tasks. He or she works to remove barriers to progress for team members. The PM requires strong *management* skills. BAs are more focused on listening and analyzing. They must listen carefully to subject matter experts and *discover* requirements, not create or invent them. The BA is actually looking for problems or issues that may not have been identified during project scoping and that may impact the success of the project. The BA alerts the PM to these potential problems and works with the PM to address them. The BA requires strong *investigative* skills. The PM is focused on helping people on the team get work done, while the BA is focused on helping people describe how and why they do work. The BA also must communicate these business needs to the technical team and listen for suggested solutions.

During the course of a project, the PM manages the change control process. Any changes to a project will impact the original plan, so the PM assesses this impact, works with the executive sponsor to decide whether a change will be accepted, and then revises the plan to accommodate any changes. BAs only manage changes to the business and functional requirements and usually only assist the PM with the formal change control process for these changes.

Tips for Those Performing Both Roles

For the individual playing this dual role, the challenge is to be aware of the conflicting focus and to try to act in one role at a time. You may find you are having disagreements with yourself, and it may be helpful to have a fellow PM or BA listen to your internal debate to try to help you make decisions. Be aware that you probably have a preference for one role or the other, and you may find yourself neglecting the tasks of the role that you enjoy the least. If you prefer doing PM work, you may miss requirements. If you prefer doing BA work, you may allow the schedule to slip or forget to direct your team members. This situation is further complicated if you are also assigned to other project responsibilities (e.g., you are also the technical architect) or assigned to work on other projects. Your project schedule, budget, and product quality may be affected. Be sure to plan for the time needed to do both jobs adequately.

If you frequently find yourself in this situation in your organization, use your excellent communication skills to heighten management's awareness regarding these conflicting roles. Make management and your team aware of your conflicting responsibilities and the challenges associated with them. Seek help in managing the schedule and help in gathering and documenting the requirements. If possible, try to minimize your involvement in other concurrent projects.

Other Business Analysis Professionals

For large projects, more than one BA may be needed. When multiple BAs are working on the same project, they need to plan the business analysis work and then divide the work appropriately. When one of the BAs is designated as the senior BA, he or she usually will decide which tasks will be assigned to each BA. BAs must work closely together during project initiation and requirements elicitation since they may be working on closely related business areas.

There are many different strategies for dividing business analysis work. Some teams delegate one BA as the data analyst, one as the process analyst, and one to gather business rules. This division allows each analyst to focus on a particular type of requirement and then cross-check their work by linking or tracing their requirements components to the others. Another delegation strategy is by high-level business process. Each BA is assigned to a high-level business process and is responsible for analyzing all of the requirements components needed for that process. Regardless of the delegation approach used, BAs should consolidate their requirements and make sure that all relationships between requirements components have been documented.

Subject Matter Experts and Users

A subject matter expert (SME) is a person who has a particular expertise needed on a project. The expertise may be on the business side (a person who understands the business needs), on the technical side (a person who can provide design ideas), or outside the organization (an external customer). The acronym SME has become popular because it can be used to describe anyone on a project who has expertise.

The role name *user* is also used frequently. This word refers to a person who “uses” the software under discussion. Many people prefer the role name *SME* to *user* because it sounds more positive and because it is more accurate during analysis/requirements elicitation. Be aware that although many SMEs may also be “users” of the software, many are not. A department manager may be an SME because he or she understands the business goals of the department but is not a user because he or she doesn’t actually enter any data into the software system. Alternatively, a user is not necessarily an SME. A data entry person who simply enters data on a computer screen without any knowledge of the reason for the data entry is not an expert.

As mentioned earlier, business analysis professionals must be able to use varied language when talking and writing to best communicate to the intended audience. Titles and role names of stakeholders are used inconsistently. Be sure to clarify terminology and titles when listening. Some people use the word *customer* to mean a person external to the organization who purchases products. Some IT people use the word *customer* to mean anyone inside the organization who uses IT services. A simple mistake like the confusion around this term can cause requirements elicitation to take longer than anticipated.

Business domain SMEs know about the business area being analyzed. Ideally, they are *experts* on the business. They are workers and managers in the business area and they are people outside of the business who have some interaction with the particular area of the business being studied. These are the people who BAs sometimes refer to as their *customer*; these are the people for whom the BA is trying to solve a business problem and create a solution that will make the business more efficient and effective.

During the requirements elicitation phase, it is important to talk with *experts* on the business. An SME can really be anyone who has some information about the business that you are analyzing. These are the people who provide you with the critical understanding of the business: why things are done, how they are performed, and what the results are. Without these SMEs, there is no business analysis. Some of the SMEs may report to the sponsor, but some will not. On small projects, the sponsor may be the head of a department using application software that interfaces with other departments. SMEs are business people from various organizational units who have varying amounts of interest in your

project. Your biggest challenge is to convince these people that they should spend time with you and tell you everything that you want to know about their business. Successfully convincing them that you are on their side and working to help them is the best secret to being a successful BA.

Users of the solution must be identified and supported during the design and implementation phases of a project. They should be involved in screen and workflow design. They also should be involved in user acceptance testing (see Chapter 5). In addition, BAs usually are responsible for training users in the software and procedural changes that will be necessary upon solution implementation.

All SMEs are not created equal. Expect many challenges with personality types, working styles, and motivations. Understanding and winning over these experts will not be easy. It will require you to get to know these individuals, do research before meeting with them, and use every bit of charm that you can possibly command to convince them that they should tell you their deepest, darkest secrets. These are not personal secrets, but honest revelations about how they do their jobs, what their most important issues are, and why broken processes are not working.

Getting to Know Your Subject Matter Experts

Ideally, you will be given the names and titles of your SMEs before any project meetings or facilitated sessions are scheduled. Take a look at the organizational chart. This will give you a chance to do some research before you meet with each one. Your research may include looking for the SMEs' names on previous project requirements packages, sign-offs, or testing documents. You should be able to determine to which software applications they currently have access. You may be able to find out how long they have been with the company and how long they have been in their current position. Anything that you can learn about these people will be beneficial. Think of it like doing research before going on a job interview. You will want to make a good impression on these people the first time that you meet, so anything you know up front will help.

Although you don't have to find out which high school or college an SME attended, it would not be a bad idea. You would not want to start off a relationship by saying "I'm happy today because my team beat the Bulls this weekend!" if an SME is a huge Bulls fan.

You don't have to wait until you are assigned to work on a project to get to know potential future stakeholders. The successful business analysis professional is always building relationships with people in various areas of the business.

It is helpful to learn as much as you can about each SME so that you are better able to build a relationship and build trust. It is also important to try to discover each SME's work style so that you can match as closely as possible their most comfortable method of interacting and getting work done. If someone likes to get to work early in the morning, you might ask if an early interview time is convenient. These seemingly small gestures will improve the speed at which you can elicit requirements and, more importantly, give your SMEs—your customers—a confident sense that you are on their side.

How do you do this “research”? Think of yourself as a private investigator. You are trying to learn as much as you can without anyone suspecting what you are doing.

- ◆ Walk by the SME's cubicle or office to observe his or her workspace.
- ◆ Does it appear well organized or cluttered? This may give you an idea about how this person works.
- ◆ Are there a lot of people around socializing with the SME or does he or she seem to be a loner? This will give you an idea about how willing the person will be to talk with you.
- ◆ Are there any certificates or awards hanging on the walls of the office? This may indicate experience, training, and pride in work accomplishments.
- ◆ How old does the SME appear to be?
- ◆ What nationality is he or she? Can you detect an accent?
- ◆ Are there posters or pictures that indicate outside interests? Family photos? Finding a common interest outside of work can be a great icebreaker and a way for you to develop a friendship with an SME.

If you know other BAs or PMs who have worked with this person in the past, talk with them. Carefully, discretely, subtly ask questions about how the SME participated on the last project. Did he or she show up for meetings on time? Was he or she prepared with information that was requested at previous meetings? Did he or she contact the BA with questions or follow-up information or wait for the BA to initiate all contact? How knowledgeable was this individual about his or her business? How comfortable was he or she with change?

If you know someone else in the business area who works with the SME, talk with that person. Again, carefully just mention who you will be working with on your next project and that you are looking forward to getting to know him or her. Watch for facial expressions and body language. Does your contact give any hint of a positive or negative

reaction? If so, ask a follow-up question, like “What has your experience with this person been?”

Obviously, if you have worked with this SME before, you already know the answers to many of these questions. Even so, try to keep an open mind and learn even more about the person. If you did not have a positive experience on the last project, think about what you might do differently this time. The more you know about your customers, the better you will be able to service them. There are some common challenges related to SMEs, as discussed in the following sections.

A Manager Who Does Not Understand His or Her Employees’ Work

Unfortunately, this situation occurs frequently. In some organizations, managers are routinely moved from department to department, often functioning in business areas in which they have no real knowledge or experience. This causes difficulty for the BA because interviewing the manager does not result in accurate business models or requirements. The BA initially may not be aware that the requirements are inaccurate. A solution may be delivered and be inadequate to support basic key business functions.

The first assessment that a BA must make in each business area that he or she analyzes is who knows what. The BA needs to know who in the department is considered the “expert.” Who are the consistent, experienced workers? What are the views of these experts on the current management? How does management view the workers? Does the manager like his or her job and employees? Do the workers like the manager? Respect the manager?

You will never see the answers to any of these questions in a requirements package. These are important questions that the BA must answer in order to gather accurate requirements, but they will never be explicitly stated as a project task. When you are planning and estimating your project work, be sure to include time for this analysis. (You will want to give this a politically correct name like “getting to know the stakeholders”).

These questions are also not the type of questions that you will ask directly (i.e., “How do you like your boss? Does the manager have any idea what really goes on in this department?”). Rather, you must be a detective and cleverly learn the answers to these questions indirectly. Your first meetings with your stakeholders will give you a lot of information, especially if you are able to read the non-verbal clues given by the group. Do all of the workers defer to the manager when a question is asked? If so, it may be that they have learned not to express an opinion without first knowing where the boss stands. Does the manager hesitate to answer when you ask a specific question about work in the

business area? Does the manager defer to one of his or her employees? Which one? How do the other employees react to this? Is this employee a favorite?

In most cases, a manager who is not as knowledgeable as his or her workers will tell you this directly and recommend that you rely on one or two experienced people in the group for your requirements elicitation. This is the ideal situation and gives you permission to ask others in the group for the business details. Managers who are open and honest about their knowledge typically develop employees who are open and honest.

Even if a manager does not volunteer this information, it will become very clear to you quickly if he or she is not knowledgeable about the business. Ask the same question in a couple of different ways during the meeting and see if you get the same answer. Ask about exceptions. Ask closed-ended questions that require the manager to answer yes or no. Watch for hesitations, uncomfortable body language, and a lot of imprecise, vague answers.

If you determine that the manager is not a business area expert, discuss this with the PM as soon as possible. You may be able to get around the problem, but this is the type of obstacle that can put a project behind schedule, so the PM must be involved. The two of you can decide how to proceed and back each other up when necessary. You can work to get more time with others in the department. You can give the manager an out by offering to save his or her time by asking detailed questions to employees because you know the manager is busy. If the manager insists on being your only source of requirements, let the PM handle this issue with the executive sponsor. Remember that you are working to really understand the business needs of all of the stakeholders. If one person is preventing this task from being accomplished, the project will be negatively impacted, and your responsibility is to report the problem and help find a resolution.

When the Expert Is Not Really an Expert

Although called subject matter *experts*, BAs don't always have experts with whom to work. Sometimes the manager of a business area assigns a person to the project team who does not have significant work experience in the business area (or who is not very useful to the business area). This is common because, from the perspective of the business area manager, he or she can't afford to have the best people away from work attending Joint Application Design™ (JAD) sessions or testing software. The newer or less valuable people are much easier to send to the project meetings. So, what does a BA do when the expert is not really an expert?

When assessing your requirements team, determine if you have been assigned an SME who is not an expert. Be careful not to jump to any conclusions. Just because someone is new to the area doesn't mean that they don't have some valuable knowledge. You should give the person a chance by interviewing him or her just like you would any other SME. Evaluate whether or not you are gathering relevant, accurate requirements. If the SME is frequently answering your questions with "I don't know," you obviously have the wrong person for the job. Many people, however, don't like to admit they don't know something, especially when being referred to as an expert. They may guess at answers rather than admitting they don't know or may answer with a confident demeanor and be completely wrong. Confirm the SME's understanding (or lack thereof) by using other analysis techniques like observation, reviewing existing system documentation, and looking for holes in the requirements. Ask the same question in a different way. Have two sources to confirm each requirement.

This is where your skills in diplomacy will be tested. You need to be careful not to accuse the SME of misleading you, but in effect, this may be what he or she is doing. You must determine if you have a creditable person. Let the SME and the PM know that you need to talk with multiple people about the requirements to confirm your understanding of the process. You want to make sure that everyone in the business sees it the same way.

If you feel that the SME is not knowledgeable or is misleading you, have a private conversation with the PM and indicate your concerns about the SME's knowledge level. This gives the PM an early warning of possible problems. The PM may be able to work through business management to get you a more knowledgeable SME. In the meantime, try to talk with other people in the department. Formulate brief questions, especially on the requirements that you feel are the most critical. You will quickly determine whether or not the SME was steering you in the right direction. Keep the PM informed of what you find out.

This is one of the most difficult problems with which a BA must deal. Most people dislike conflict and don't want to have to report a problem with another team member. However, you must always keep your project objectives in mind. If a particular SME is going to negatively impact project success, it is your responsibility to wave the red flag—as gently as possible. A solution that is based on inaccurate requirements will not be the correct solution. Ignoring a problem early on in a project is the surest way to help the project fail. Address a problem when you can most easily correct it. Don't point fingers. Explain what you need by being objective and stating the facts. Hopefully, the PM and sponsor will allocate other resources and get you a true expert. If not, do the best you can

with the people who are available. Be sure to double- and triple-check the requirements by asking the same questions to multiple people. Better to find problems now than allow inaccurate requirements to be implemented.

When the Expert Is Truly an Expert

This should be the ideal situation for a BA. You have been assigned an SME who knows everything there is to know about the business. So, what is the problem? Well, the SME may know the business so well that he or she fails to tell you simple, critical facts and assumes that you already know them. When experts talk about something within their area of expertise, they use terminology specific to the area and make assumptions about the listener's general knowledge of the area. Think about the last time your doctor explained a test or diagnosis to you. You probably had to ask follow-up questions or maybe you left feeling like you didn't really understand the situation. You need to ask a lot of questions and validate your understanding of every requirement. The SME knows the business so well that it seems very simple to him or her. The tendency is to oversimplify complex processes, forget to mention common exceptions, and minimize the size of the business area by explaining it so quickly. The SME may also get impatient with you and your lack of knowledge. On the other hand, some SMEs enjoy sharing their wealth of knowledge, even getting outside the scope of the project. They may provide irrelevant history or so much information that it is difficult to pull out just the pieces that you need.

Your approach to eliciting requirements from a true expert is preparation and repetition. You have access to all of the information that you could ever want, but you need to pace yourself in terms of how fast you can take it all in. It is important for you to understand your most effective approach to, and pace of, learning new things. If you are a visual learner, you will ask for diagrams and pictures of how things work. If you learn best with repetition, then explain to the SME that you will want to go over the same requirements a couple of times on different days to make sure that you truly understood them.

You may want to schedule a greater number of short interviews so that the expert can quickly give you a lot of information and you can go back to your desk to process it before your next meeting. You also have to constantly remind the SME that he or she is the expert and that you are just learning. You may have to ask the same question several times before you really understand the answer. Ask the SME to be patient with you and work to make the best use of his or her time. This may be a situation where you would

benefit from talking with a less experienced person first who can help you get an initial foundation of understanding before talking details with the expert. The expert probably doesn't remember how difficult it was to learn the basics because he or she learned them so long ago.

The Expert Who Is Reluctant to Talk

Some SMEs don't feel like experts. They are hesitant to tell you anything because they are afraid that what they tell you may not be correct. This fear may be based on experiences where mistakes were punished by unsupportive management. The key to working with this type of SME is establishing trust and developing a relationship where the SME feels safe talking to you.

One approach to working with an SME who is reluctant to talk is to present your understanding of the business and ask for corrections or confirmation. Since you don't know much about the business, your initial presentation will be naïve, incomplete, and probably incorrect in places. As the SME points out the missing pieces and corrects your errors, that individual is building confidence in his or her knowledge. The SME will begin to realize that he or she does know a lot more about the business than you do and that you are really interested in learning what he or she knows. This should make it easier for the person to share information and he or she will be more willing to explain complex topics.

Another approach is to hold interviews with two to three SMEs at a time. The reluctant SME may be more comfortable if other experts are there to help with the answers to your questions.

The Expert Who Is Angry about Previous Project Failures

Unfortunately, many software development projects have failed. A large established organization may have tens if not hundreds of project failures in its history. In most of these projects, there was at least one SME who was interviewed and involved with the project. You may meet people who were involved in several of these projects. They may be angry because they haven't seen many successes. Try to put yourself in an angry SME's shoes. The SME was assigned to a new project and initially was enthusiastic about it, spending time with a BA or developer to carefully explain his or her business processes. The SME patiently answered questions, made suggestions, and reviewed requirements documents

and design documents. The project may have even made its way to the testing phase. And then, for one reason or another, the project was canceled or the software developed didn't look at all like the SME expected it to. All that work and time, wasted. Then, a new project is started and the SME does it all over again. You couldn't blame an SME who dreads a new project with a new BA knocking on the door asking for a description of his or her business. "Describe my business! I've already done that several times! Didn't you people write anything down? Don't you all talk to each other? Why bother? You never listen anyway. If by some small chance the software actually gets developed, it never does what I want it to do! Why should I bother?"

Good question. You can't blame a business person for being angry. IT departments have not done a good job of developing software that actually benefits the end user.

How do you start up a dialogue and relationship with this angry SME? First of all, search for any notes/documents/plans from previous projects so that you don't have to start from scratch. If you can find some of the previous work, the SME will at least feel like someone listened to him or her on the last project. Another important part of your initial conversation with this SME requires you to show empathy and regret for all of those previous failures. Even though they were not your fault, from the SME's perspective you represent the group of people who failed, and he or she wants to hear that your group is sorry about the wasted time and the frustration. This is a critical step in getting past this anger. It doesn't cost you anything to apologize. All you have to say is: "I know that you have worked on similar projects in the past that have failed. I am very sorry that your time was wasted. We have learned from those failures and are hoping that you will help us again, using our new approach. As the BA, I am your advocate, and my job is to make sure that your business needs are met on this project. I will be working with the solution team to make sure that they understand what you need and that they design and build it correctly." Apologizing and taking responsibility for the source of the SME's anger and frustration will disarm the person. The SME may be able to let go of his or her anger simply because you have listened to him or her. Once you get past this, your interactions with the SME will be much easier.

The Expert Who Hates His or Her Job

Occasionally, an SME may be someone who is very unhappy in their current role. You will detect this unhappiness from the person's body language, tone of voice, and attitude, or he or she may tell you directly. An SME who hates his or his job will not propose

solutions to problems, will not be enthusiastic about the project, and will not be easily engaged in the process. Offer to meet the SME in his or her office or in a conference room in his or her area for your first meeting. Allowing someone to be in their environment will put them more at ease. Start out your conversation on a positive note by telling the individual that you are looking forward to working together. Introduce yourself very briefly and watch for body language. Is the SME interested in who you are or anxious to get on with the meeting?

Another approach is to meet the SME somewhere away from the work environment. Going out for coffee or lunch will allow the SME to relax and get to know you with a more positive attitude.

As with many negative emotions, it is often helpful to allow the SME to talk with you about his or her frustrations. Listening empathetically and showing interest may lessen the intensity of the negative feelings and allow the SME to focus on your questions. You do have to be careful not to let the negativity go on throughout the interview because it may prevent you from eliciting true requirements. It may be helpful for you to acknowledge the problems and then move the conversation on to a more positive or at least neutral footing. For example, you might say: “I can see why you would be frustrated with this situation. Hopefully, our new system can make your job a little less tedious [or whatever the complaint is].” You may also want to explain why the SME was selected for this project. He or she may have specific expertise or a lot of experience that will increase the likelihood of project success. You may be able to say that the SME was “hand-picked” to participate because of his or her knowledge and value. Put a positive spin on the SME’s participation in the project based on what you know about the situation.

Lastly, make sure that the SME understands the project. Explain your understanding of why the project has been initiated and the project objectives. Tell the SME what the project will do for him or her. There is a saying in training: “What’s in it for me?” If you can convince the SME that his or her job will be more tolerable if the project is a success, you may have an ally. Set expectations about what you will be looking for in your requirements gathering activities.

SMEs provide the materials (information) upon which to build a solution. It is critical that a BA work closely with all of the SMEs on a project to ensure accurate requirements.

Quality Assurance Analyst

A quality assurance (QA) analyst (whatever their title) is a gift that many BAs never receive. People who are experienced, knowledgeable QA professionals add enormous value

to any project or process in which they are involved. QA professionals have been trained to focus on building quality into products from the beginning, not just looking for errors at the end. In addition, the QA group will be responsible for validating the requirements against the resulting software at the end of a project. They will be planning how the resulting product will be tested right from the beginning of the project.

Involve the people in the QA department in your projects as early as you can. Invite them to your project scope/initiation meetings. Include them in as many of your requirements reviews as they can attend. Give them drafts of your requirements deliverables anytime they are willing to look at them. QA people are trained to look for inconsistencies, incorrect requirements, and descriptions that are too vague. Because the QA group will be responsible for testing at the end of the project, they will be reviewing each requirement for testability. This is one of the most valuable gifts that they will give to the project. If a test cannot be designed for a particular requirement, then the requirement is not specific enough. The classic example of “software should be easy to use” reminds us how easy it is to write a requirement that is not testable.

You will probably act as a liaison between the QA analyst and the SMEs. The QA analyst is going to ask questions that are extremely detailed, and an SME may not understand why the detail is necessary. Also, in many methodologies, the QA analyst is a required sign-off for the requirements. This means that you have to write a requirements document that satisfies not only the SMEs but also the QA analyst.

The skills required to be an excellent BA are very similar to those required for QA work. Both professions focus on accurate details and have a continuous improvement mentality. Many individuals work in both areas or transfer from one to the other. QA analysts are very interested in contributing to the quality of a product by anticipating (noticing) potential problems. The BA should get to know the QA analyst, just like all of the other stakeholders. Try to determine the analyst’s motives, interests, strengths, and weaknesses. As with any stakeholder, the better you understand the QA analyst, the more you will be able to help him or her be more productive on the project. Play into that person’s strengths, especially if they are your weak areas. Many BAs like to start a brand new document, draft it, organize it, etc. They don’t enjoy revising and rewriting as much. A strong QA analyst will enjoy reviewing, rewording, and revising and would therefore be a great partner for a BA. Together they would produce a really excellent requirements deliverable.

A well-established QA organization is the Quality Assurance Institute (www.qaiworldwide.org).

When “QA” Is a Bad Word in Your Organization

The words “quality assurance” have been used in many different ways. Unfortunately, some organizations have given this title to people who do not have the appropriate training or experience. Those on the QA team may not be given very clear direction about what they should be doing or may be assigned to too many projects at one time. They may be given the responsibility to sign off on project deliverables but given no authority to manage the process. This situation has caused some negative feelings about the QA function. Some IT people think a QA person is constantly looking for fault in other people’s work and reporting all of these defects to management. This perception creates a negative attitude toward the QA department, and project teams begin to avoid all contact. They conveniently “forget” to invite QA to project start-up meeting and reviews. The more the QA person is made to feel unwelcome on project teams, the angrier they can become and they develop a negative attitude. This negativity just feeds on itself, and this is one of the reasons why the QA department has been eliminated in many organizations.

If your organization treats the QA person like a leper, don’t join the crowd. Anyone who reviews your work can give you helpful suggestions if you are open to them. Make the QA person your friend and he or she will help you. Invite him or her to every meeting, review, walkthrough, etc. Provide him or her with a copy of every relevant deliverable. Work very hard to convince the QA person that you are different and that you do value his or her opinion.

Usability Professional

There are various titles and roles that focus on software usability, including human factors, usability engineering (which is a subset of human factors), user experience design, and user-centered design. Usability professionals (UPs) are a specialized type of business analysis professional. Individuals in these roles are experts in designing products that are easy to use. They work with users, performing task analysis and eliciting requirements to assist in the development of prototypes. The very structured, proven techniques of usability testing are then applied to the prototype and design changes made based on the results of testing.

UPs have become extremely valuable to organizations for a couple of reasons: (1) the creation of e-commerce and external customer use of Web sites have made usability a competitive advantage and (2) the realization through metrics-based analysis

(i.e., Six Sigma, Lean) that a usable application significantly improves productivity and data integrity.

When a UP is assigned to a project, the business analysis professional should meet with that individual to determine their respective responsibilities. UPs are skilled in business analysis, with a concentration in usability. Like all BAs, they are skilled in requirements elicitation, stakeholder analysis, and communication. In addition, they are skilled at screen design, prototyping, simulation, and usability testing. These skills allow them to focus on the human-computer interaction and work with developers to create a highly usable product. UPs will also be excellent resources for requirements reviews.

To learn more about usability engineering, a great resource is Jakob Nielsen's book by the same name: *Usability Engineering*. To learn more about the usability profession, visit www.usabilityprofessionals.org. This is an area into which some business analysis professionals may move as they specialize.

When a project does not have access to a UP, the BA is expected to play this role. It is important that every BA be aware of the main precepts of usability and most importantly be able to look at each project and determine if usability engineering is a critical skill that is required for the success of the project (see Chapter 5). Alerting the sponsor and PM to this need as soon as it is recognized may facilitate the acquisition of the needed resource or may give the BA time to learn more about usability as it would relate to the current project.

IT Architect

IT architects design IT solutions. They understand how to structure software to accomplish specific objectives. They understand the organization's technology strategy and current environment. They are aware of upcoming technical initiatives that may impact business projects. They ensure that new applications will integrate with the existing infrastructure. IT architects should be involved with every project at its inception. They will review the high-level business objectives and requirements to determine how technology can best solve the business problem and assess the feasibility of solution alternatives. The PM, BA, and IT architect form the critical project planning trio.

BABOK Connection	
Knowledge Area	Task/Technique
Business Analysis Planning and Monitoring	Plan Business Analysis Approach

Case in Point

One of our students related an experience which shows the critical role played by the IT architect. She had elicited business requirements from her business stakeholders using a structured process template that included metrics for the current process and desired metrics for the solution. She asked her stakeholders for their ideal performance requirements for a new Web application. Once her high-level business model was complete, she reviewed it with the IT architect to assess the feasibility of the solution. He immediately noticed the performance requirements and told her that a Web application could never deliver on those constraints. She was able to go back to the business stakeholders and help them rethink the project objectives, saving the project team hundreds of wasted hours.

IT Developer

IT developers build IT solutions. They are the ultimate consumer of requirements and will be the people who make your solution vision a reality. To work effectively with IT developers, familiarize yourself with IT terminology and concepts (see Chapter 5). BAs who have an IT background will easily be able to converse and work with IT professionals. The one thing that you will notice is how quickly your technical skills become obsolete once you step out of that world. Things change very quickly in the development area. Don't feel bad; your basic understanding of software and development will always be relevant.

IT professionals are people who are very interested in making/building things. They are similar to engineers, artists, and builders. They enjoy coming up with ideas for new products, and they enjoy seeing those products come to fruition. Some developers are more interested in building new products, while others enjoy fixing/improving old products. Some would rather design, while others would rather code. A few rare individuals enjoy doing both. As a BA, it will be helpful to you if you get to know your IT people individually and understand their individual interests. The better you understand these technical stakeholders, the easier it will be for you to explain the business needs and work with them to design effective solutions.

Some developers will want to understand the business reasons for the products that they are building. These individuals may eventually choose to become BAs themselves. If you find yourself working with a developer who is frustrated working in a technical requirements vacuum, include that person in SME meetings if possible. You can really look at this developer as a BA-in-training and you can mentor him or her on communicating with the SMEs. Don't feel threatened by this direct communication between the

SME and development team. The role of the BA was invented because some developers don't communicate well with business people, but don't assume that all IT people are poor communicators. As with all human beings, get to know people individually and work with each in the way that they will be most comfortable.

Case in Point

When I was a programmer/systems analyst in my first job, we didn't have any BAs, so I was responsible for gathering requirements and developing the software, working directly with the SMEs. In a later position, my project team included BAs who interfaced with the SMEs for the programmers. I quickly discovered that I didn't like working with a go-between. I wanted to know what the business people were doing, why they wanted the software, and I wanted to see them use it at the end. My frustration in working through a BA is what led me to become one!

Do the developers have special training/certifications? Were they trained internally or before they joined the enterprise? Have they been working in this organization for a number of years or are they relatively new? Turnover in the IT industry can be very high. BAs must become very adept at building relationships with IT people wherever and whoever they are. To successfully work with the technical architects and developers, a BA must be able to communicate with them in the context of their environment.

When you are getting to know the developers, there are several things which will be useful for you to learn:

- ◆ Is the developer an organized worker? Does he or she keep a to-do list or rely on memory? Does he or she approach tasks in a sequential order or more randomly?
- ◆ Is the developer creative? When given a requirement, does the developer build as is requested or loosely use the requirements to build something that is clever, graphically aesthetic, or overly complex?
- ◆ Does the developer readily turn over his or her work, or does he or she postpone showing it to anyone while testing it, making sure that it is completely done? (In other words, does the developer test his or her own work? Is the developer a competent tester or only test cases that he or she knows will work?)

- ♦ Is the developer interested in understanding the business needs and user preferences? Does he or she ask detailed questions about business rules and then listen carefully and develop code that supports those rules?
- ♦ Is the developer familiar with the analysis techniques and presentation formats included in your requirements documents?

Understanding how a developer works best will help you decide appropriate requirements deliverables and communication approaches. One of the attractive aspects of the agile approaches to software development (see Chapter 5) is the myth of no requirements. Because many developers don't like to read or follow written requirements, they are drawn to the idea that they won't have to deal with documents. In reality, an agile project has just as many requirements as any other project. The requirements may be given to the developer verbally, but they still must be implemented. They are given to developers in small chunks, which works well for developers who are not used to working off of a to-do list. Providing one requirement at time with a tight deadline keeps the developer focused and discourages creativity.

The Developer Who Is Very Creative

Developers who are very creative are wonderful people. They are the people who have created Google™, Yahoo™, and many exciting games and gadgets. They see the world from a very different perspective and are constantly looking at old things in new ways. These individuals are critical resources in organizations where leading-edge technology is a critical success factor. The challenge for BAs working with these extremely creative individuals is their feelings about requirements. Creative IT people often appear to be ignoring the requirements, which can be very frustrating for the BA. In actuality, they see the requirements as guidelines. Giving them a detailed set of requirements is like putting them in jail. You are limiting their creativity and preventing them from doing the thing that they are really good at and enjoy best. Make sure that they understand the true business need and then allow them to use their creativity in the functional design. Be sure to keep them within the scope of the project.

The Developer Who Codes Exactly to Specs

At the other extreme are developers who write program code that supports the written requirements or specifications *exactly*. They will not add any additional functionality, even when it seems obvious that something was simply missed in the specs. These individuals

will not make suggestions for better approaches or ask questions about possibilities outside of the requirements. Often, developers working for contract and/or outsourcing companies are instructed to code exactly to specs.

This can be a challenging situation for BAs since the requirements are supposed to be complete and accurate and should provide everything that the developer needs to know. Realistically, no requirements specification is perfect, so having a developer who thinks logically about the code he or she is writing and asks questions when he or she sees potential holes is ideal. The best way to handle a developer who codes blindly to specification is to have structured walkthroughs on each requirement deliverable and talk about the needs with the developer. Try to get the developer to ask questions and find the missing pieces right away so that you can amend the requirements before he or she starts work. Ultimately, the business needs must be supported by the code, so if changes are required after coding because of errors in the specifications, they may have to go through the project change control process.

The Developer's Industry Knowledge

Most developers specialize in a particular set of technical skills which are independent of a particular business industry. It is not uncommon to meet a developer who has worked in a manufacturing organization, followed by a telecommunications company, and then a financial services or health care business. Developing software for business functions that are not well understood is possible when developers work with BAs and system architects who understand the business domain. Some developers are not really interested in what the organization sells or services as much as they are interested in using the latest technical tools and approaches. The less a developer knows about (or is interested in) the business domain, the more dependent he or she is on complete, accurate requirements. The business terminology will not be known, so specific design components like screen labels and error messages must be explicitly stated and followed.

Alternately, some developers have experience/knowledge in a particular industry or business domain. For example, there are developers who specialize in commercial off-the-shelf applications like SAP® or PeopleSoft™. These developers may be very familiar with a set of terms unique to the application or business domain. They will provide less of a communication challenge because they know the language of the business. Just be sure that the developer knows the language of your particular business. Your organization may use terminology differently from other businesses in the same industry. In the training industry, there is inconsistency in the use of fundamental terms like class, course, and seminar. If a developer with industry experience joins your organization, make sure that

he or she doesn't assume terminology is used exactly the same way. Again, detailed requirements avoid ambiguity.

Data Administrator/Architect/Analyst

Data administrators (DAs) and data architects utilize many of the same analysis skills as BAs. Some of them may have the title *data analyst*.

A DA is responsible for managing corporate data definitions. He or she maintains a data dictionary, data warehouse, and/or other repository of descriptions of the pieces of information that are important to the organization. Not all organizations have DAs. This role emerged in the 1990s as organizations realized that data was a corporate asset. Numerous databases and files had been created with redundant, often inconsistent data. The DA helps project teams reuse existing corporate data and use it consistently. Having one central view of business data helps an organization provide accurate answers to questions posed by its customers and its executive management. Another name given to this management of data at the enterprise level is master data management.

If your organization has a data administration team and a corporate data repository, it is critical that you become familiar and comfortable with them. This is a great resource for you on every project and will allow you to gather and analyze requirements much quicker. As discussed in Chapter 1, business requirements are made up of data, process, and business rules. When data has already been defined and documented for your organization, then possibly a third of your requirements definition is done before you start. Since many business rules are data related, the business rules are included in an entity relationship diagram, which is a common diagram used to represent data (see Chapter 6). This already available, quality, consistent view of data requirements allows all projects to be completed faster and the resulting solutions to be more easily integrated and interconnected.

DAs are strong analysts and usually have a technology background. They may have experience as a database administrator (see the next section), as a developer, or in another technical role. DAs are motivated by high-quality reuse of data and are often very protective of "their data." You should get to know the DA, just like all of the others on your team, and develop a relationship based on trust. You must learn to trust that the DA knows quite a bit about your project even before you get started. Understanding the data of an organization gives the DA a strong understanding of the organization itself.

At the beginning of a project, meet with the DA/data analyst and ask for background about this particular business area. Learn from him or her about the data that has already been identified and documented. Learn which pieces of information are currently stored

in a database, in which databases and systems they exist, and who maintains them. You are eliciting requirements from someone who has already done the difficult work of picking the SME's brain and can give you the requirements in their purest form. Take advantage of this jump-start on your project by learning everything that you can before you meet with the SME. You will be able to formulate more intelligent and detailed questions for your first interviews and will be able to allow the SME to talk almost exclusively about process (which SMEs love to do). Your work will be to make sure that the processes they discuss can be supported by data that already exists. The DA will also tell you about data that has been identified but has not been thoroughly documented and organized. These are areas where you will need to spend more time focusing on data. The DA will be a great resource to assist you as you develop these requirements.

As much as possible, have the DA review all of your requirements, not just data. He or she may see process and business rule inconsistencies with existing data. Because the DA is a strong analyst, you have another peer to help you find weaknesses in your requirements as you go along. The DA also will be a great resource when you move into design, working with the database administrator and technical team to determine where new data elements should be stored.

Some DAs have developed negative attitudes and you may hear that someone is "difficult to work with." This is often because the data administration function is underfunded and underappreciated. Many organizations that created a data administration group in the 1990s were very excited about the data repository when the stock market was booming and business indicators were up. But when an economic downturn was predicted and companies began tightening their belts, the DA group was an easy area to cut. Many data repositories were left incomplete and only partially maintained. This led to a situation where not all corporate data had been defined and described, so new projects couldn't always use the common information. With fewer people in the data administration group and incomplete data definitions, it was easy for BAs and project teams to skip the DA reviews and just create their own data requirements. This often caused more redundant, inconsistent data sources. The DAs that were left felt that their authority was undermined and their importance to the organization diminished. This leads to unhappy, disgruntled people.

Database Designer/Administrator

A database designer is responsible for determining where data should be physically stored, how it will be accessed, how it will be protected, who will have access to it, and where

it will be used. These are critical decisions for an organization that have long-term effects on the efficiency and quality of information systems. Database designers and database administrators also maintain these data stores for the life of their use. They maintain backup procedures and disaster recovery procedures; they correct problems with the data values when errors are introduced.

When a project involves creation or storage of new information, the database administrator must be involved. Even if you are going to use existing data in a new way, it is a good idea to discuss this new usage with the database team. Creation of and access to data can have huge performance impacts for software users, and providing inaccurate data from a software application is the quickest way to sabotage trust in your work. Make friends with the database administrator, and check with him or her even when you think you don't need to. As with all stakeholders, when you establish a good relationship, always act ethically, and keep the database administrator informed, you will have a valuable ally when you need one.

Vendor

A vendor is a company from which services or products are purchased. There is typically a contract relationship between the purchasing organization and the vendor organization. There are many types of vendors with which a BA may work on a project. A company that sells and supports application development software is the most common one. Examples include SAP, PeopleSoft, and Siebel™. Other vendors may be hardware vendors, consulting services companies, and outsourcing vendors.

Figure 2.2 shows the typical life cycle of a vendor relationship. As a BA, you may be involved from the beginning of this relationship or may be brought in at any point. Chapter 3 will discuss software package implementation projects and Requests for Proposal (RFPs) in more detail.

There are a few key points in this life cycle where a BA can add great value: at the beginning (sales, demos), during creation of an RFP, and in reviewing the responses to an RFP. A skilled BA will help the organization select the best solution available and will expose the gaps that will occur with any package solution.

Sales people and marketing people are very good at their jobs—and no more so than in software companies. They have outstanding descriptions of the wonders of their software and describe how it will make your company more successful and your workload lighter. The demonstrations are slick and polished and make the software appear easy to customize and easy to use.

