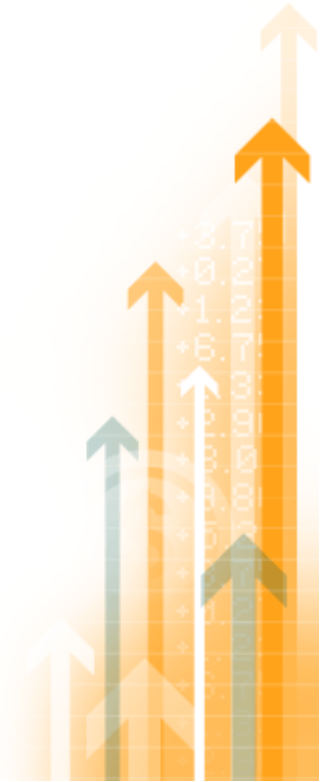


# ➔ Lesson Introduction

## **Welcome to the Fundamentals of Business Analysis course!**

Fundamentals of Business Analysis is a core course in the Business Analyst Certificate Program. This program focuses on the set of tasks and techniques a business analyst uses to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and to recommend solutions that enable the organization to achieve its goals.

Today, business analysis encompasses a set of well-defined skills and knowledge that combine traditional business topics with technical topics. This is because the solution to business problems often involves the implementation of some sort of technology-centered solution.



Fundamentals of Business Analysis provides an overview of the contents of the International Institute of Business Analysis® (IIBA®) Business Analysis Body of Knowledge® (BABOK®). The BABOK® Guide describes business analysis areas of knowledge, their associated activities and tasks, and the skills necessary to be effective in their execution. The current version of the BABOK® is version 2.

The goal of the IIBA® in having a well-defined body of knowledge is to set a globally recognized standard for the industry that delineates the tasks business analysts should be capable of carrying out. The IIBA® provides an internationally recognized certification, the Certified Business Analyst Professional™ (CBAP®). Candidates must take an exam that tests them on their knowledge of business analysis skills in general and the BABOK® in particular.



*While not all business analysts necessarily perform all the tasks described in the BABOK® on a daily basis, it is important for them to be at least familiar with all the knowledge areas in case they find themselves working on a project that requires them.*

Fundamentals of Business Analysis is specifically designed to give people new to the business analyst role or those who supervise business analysts a basic understanding of the functions and business impact of this role. The course provides a special focus on business analysis functions as they relate to the development of technology solutions that meet specific business needs.

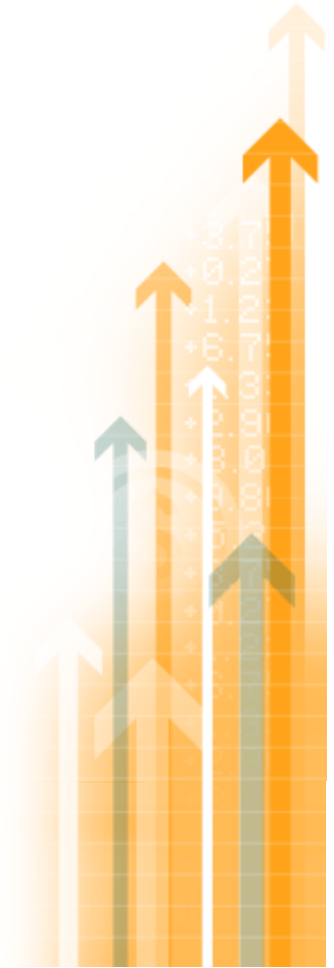
Of course, not all business analysis necessarily leads to technology implementations. In some situations, the solution might be a simple redesign of an existing process. However, the vast majority of business projects that use business analysts today have a large Information Technology (IT) component as part of the project, hence our course will tend to lean in that direction.

# ➔ Lesson Objectives

This lesson concentrates on some of the more prominent **roles**, **responsibilities**, and **competencies** for the business analyst position.

**Upon completing this lesson, you should be able to:**

- Explain why businesses need business analysts
- Describe the **main job duties** of a typical business analyst
- Describe the contents and purpose of the IIBA® Business Analysis Body of Knowledge®
- Explain the relationship between **business processes** and **technology-based solutions** that implement these processes



## Why Do Businesses Need a Business Analyst Position?

In the days before the Industrial Revolution, most products were produced by craft workers who accomplished the whole process of constructing a product, not just the manufacturing, but the marketing, sales, design, and service as well.

In 1776, with Adam Smith's *Wealth of Nations*, the Industrial Revolution began, and with it, the **need for specialization**. In the time of the craftsman, when the entire process could be run by one person, the output from that process was very limited. With the rise of the Industrial Revolution and the use of specialists, however, a process could yield incredibly more output.

*For example, where a craftsman could yield less than 20 pins per day, a team of 10 people, each specializing in a certain aspect of the process, could work together to produce 48,000 pins per day. Please click on the links below to learn more about the Industrial Revolution:*

[The Origins of the Industrial Revolution in England](#)



## **Specialization**

**Specialization, while producing great advancements in terms of output, brought with it a set of unique problems.**

As companies benefited by increasing output and reducing the price of their product, they needed even more specialists to run the entire organization.

Specialists were not found just in manufacturing but in other areas such as finance, accounting, legal, personnel, marketing, and sales. This specialization led to functional organizations within enterprises.

Why? One reason is that it is easier to manage people and their activities if they are grouped into specialized fields or functions. Nonetheless, this functional organization led to three distinct types of problems, as shown in the table at right.

## Process Orientation

Thus began a need for looking at an entire process in a way that could lead to improvement in that process. This became known as **business analysis**, **business process reengineering**, or **continuous process improvement**.

This concept really took off in 1993 when M. Hammer and J. Champy wrote *Reengineering the Corporation*.

From that point on businesses used a process orientation to business improvement. **Process orientation is involved in looking at the processes that make up the organization**, as opposed to the departments that make up an organization, to determine which processes contribute to or detract from an organization's competitive advantage.

This approach can help businesses deliver more value to the customer. They can determine which processes add to or detract from the value the organization creates for its customers and then they can focus their attention on those processes that add the most value.

Read an excerpt of [\*Reengineering The Corporation: A Manifesto for Business Revolution\*](#).

## Business Information

Though organizations have been using computers (albeit large ones) since the 1950s to store business data and process transactions, the introduction of the **desktop computer** in the 1980s and the Internet in the 1990s combined with the **user-friendly ways** in which **people can interact with computers** through intuitive **graphical interfaces** (i.e. "windows" and "mice") led to an **explosion of information technology** in nearly all business functions that involve data storage and communication.

In addition, computers allow us to perform **complex mathematical operations** that allow us to **streamline** many kinds of business processes and **increase the efficiency** of such diverse operations as routing delivery trucks, scheduling events, and maximizing the usage of physical storage space. These functions can be integrated seamlessly into an organization's overall business strategy to achieve greater productivity at a lower cost.

In fact, an emerging business challenge may not already have a well-defined process in place, so the solution might be to develop a new process altogether.

Here is where **business analysts** enter the scene.

Their job is to become **knowledgeable** about business needs (and challenges) in terms of business processes and functions, and then work on project teams with technical professionals to develop solutions to improve those processes and functions. Again, IT solutions are perhaps the most frequent end product of these kinds of projects, but a good business analyst knows when other solutions may be more appropriate.



## Business Analyst Titles

**Business analysts are involved in activities like:**

- proposing a new business process to solve a business problem;
- determining which business processes can be streamlined with software applications;
- eliciting specific user needs and proposing appropriate technical solutions; or
- working with technical professionals to ensure that the solutions they are building meet the needs of end users.

While the correct term to use for this position is business analyst, other terms have been used as well. For this class we emphasize that the correct term is business analyst, and the work they do is **business analysis**. However, in the box at right you will see some other job titles that have been applied to people who carry out business analyst activities.

## The Business Analyst and the Project Manager

While projects exist because of stakeholders, projects are managed by *Project Managers*— not business analysts. Business analysts are often the liaison between the end users and recipients of the project deliverables, and the project manager.

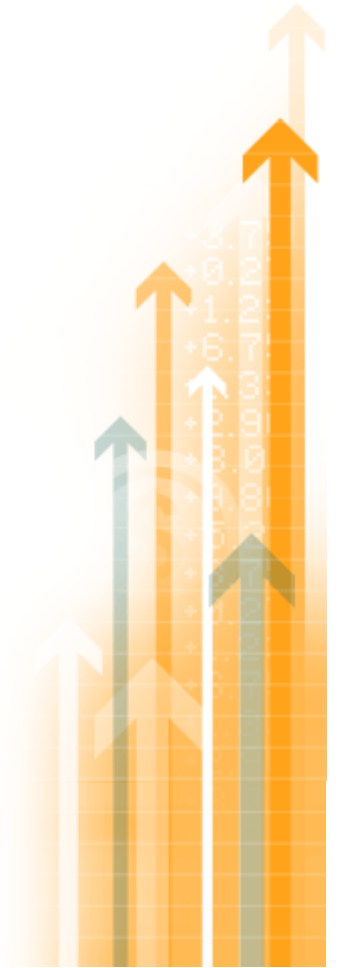
The Project Manager (PM) is a special type of stakeholder that has been assigned the **overall** responsibility for the project. The PM is responsible for managing the project activities and for ensuring that the project's objectives are met while balancing the project constraints, including scope, budget, schedule, resources, quality, risk, and others.

In contrast, the Business Analyst (BA) is responsible for eliciting the actual needs of stakeholders and works to facilitate communication among organizational units, serving as a "translator" in aligning the needs of business units with the capabilities delivered by information technology.

In a project, the business analysis activities are integrated with and are a component of the overall project plan. The BA coordinates duties with the PM in planning business analysis activities. The Project Manager, however, is responsible for ensuring that those plans are integrated with the work performed by other project personnel. In addition, the scope of business analysis work within a project is managed as part of the overall project scope, and changes to that scope of work (for example, as new stakeholders are identified or business requirements change) may require approval of a project scope change. The PM also plays a key role in identifying resources to perform tasks, scheduling the activities, and developing cost estimates.

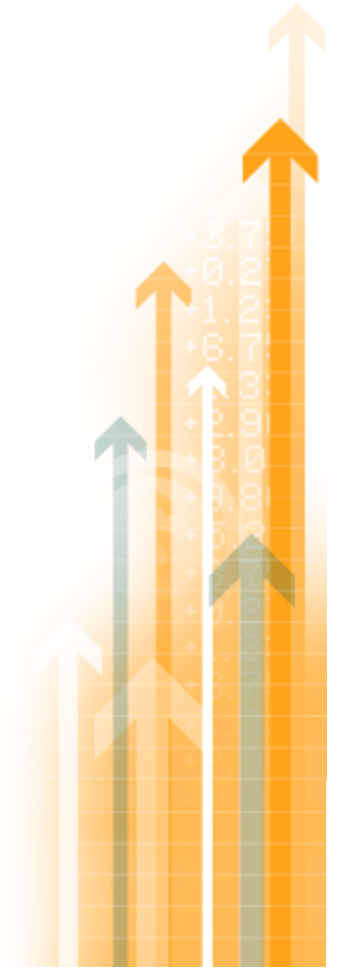
## ➔ Self Check

1. **Why did specialization, which arose largely as the result of the industrial revolution, give rise to a need for business analysts?**
  - a. Business activities became more complex, being composed of many smaller steps, which led to inefficiencies that could be identified and reduced or eliminated through careful analysis.
  - b. Because specialization occurred only after companies began installing computers to streamline processes, business analysts were needed to write software programs to operate large industrial machinery.
  - c. The industrial revolution brought increased competition among companies along with a risk of financial instability. Consequently, business analysis became necessary to help companies decide where to invest their profits for greater returns.



## ➔ Self Check

- 2. Do business analysts work on projects that don't involve information technology?**
- a. Never - computers are what make process re-engineering possible.
  - b. Always - information technology is useful for storing and manipulating information, not for improving fundamental business processes.
  - c. Sometimes - business analysts often work on projects that involve IT solutions, but sometimes simply changing a business process is sufficient to achieve process improvement.



## The IIBA® and the BABOK®

The International Institute of Business Analysis (IIBA) held its inaugural meeting in October 2003, in Toronto, Canada. As of July 2009, there are 13 local chapters in Canada, 63 in the United States, and 30 in countries outside North America.

The IIBA is poised to become the international authority on business analysis. It has developed a certification exam that aims to raise the business analysis professional's stature substantially among the ranks of professional workers. The exam is based on the Business Analysis Body of Knowledge® (BABOK®), which describes the role and responsibilities of a typical business analyst. People who pass the exam become Certified Business Analysis Professionals™ (CBAP®).

[Learn more about the IIBA®](#)

[Learn more about IIBA® Certification](#)



## The IIBA® and the BABOK®

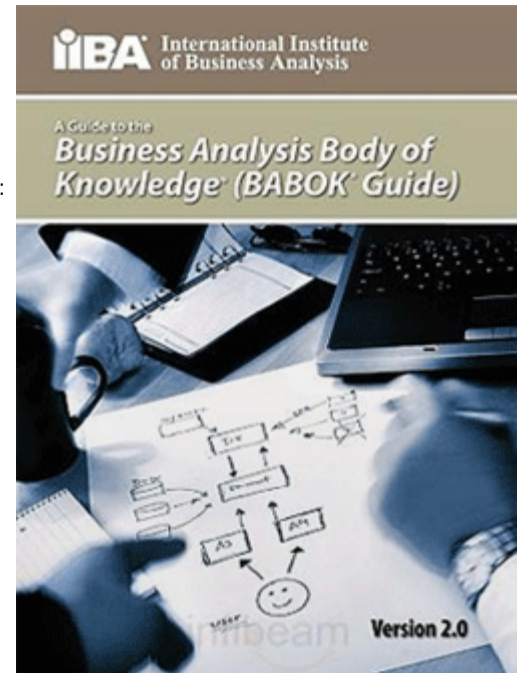
The contents of the BABOK® are based on extensive interviews with practicing business analysts along with observational studies of business analysts at work. It is divided into six major Knowledge Areas:

1. Enterprise Analysis
2. Business Analysis Planning and Monitoring
3. Elicitation
4. Requirements Management and Communication
5. Requirements Analysis
6. Solution Assessment and Validation

In addition, the BABOK® outlines the behaviors, knowledge, and personal characteristics that support the effective performance of business analysis in the Underlying Competencies section.

Note: The BABOK® includes a glossary which provides standardized definitions of commonly used business analysis terms (such as the different types of requirements, diagrams, tools and job role definitions).

This course will introduce each of these Knowledge Areas and prepare you for further, more detailed study of these topics in subsequent Business Analyst Certificate Program courses.



The BABOK® is divided into six major Knowledge Areas in which business analysis *tasks* and the techniques to perform these tasks are defined. These Knowledge Areas are supported by *Underlying Competencies* (i.e., "soft skills").

**Note:** these Knowledge Areas are not intended to represent phases in a project.

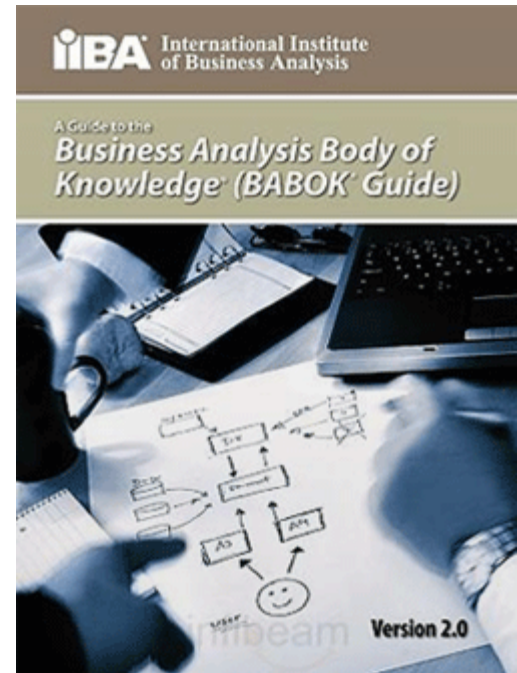
Diagram from Business Analysis Body of Knowledge® (BABOK® guide), Version 2.0, 2009, International Institute of Business Analysis, Toronto, Ontario, Canada, page 7.

## Overview of the BABOK® Knowledge Areas

Now let's take a closer look at each of the Knowledge Areas described in the BABOK®. We won't go into a lot of detail here, that's for the remaining lessons in the course! The Knowledge Areas include:

1. Enterprise Analysis
2. Business Analysis Planning and Monitoring
3. Elicitation
4. Requirements Management and Communication
5. Requirements Analysis
6. Solution Assessment and Validation

BABOK® Cover, Business Analysis Body of Knowledge® (BABOK® guide), Version 2.0, 2009, International Institute of Business Analysis, Toronto, Ontario, Canada.





## Overview of the BABOK® Knowledge Areas

### Enterprise Analysis

Organizations undertake projects for a variety of reasons ranging from solving a particular process problem to pursuing a new business opportunity. In the most general sense, a project consists of a set of steps or tasks that must be completed to achieve some desired end result. Obviously, this end result must support or contribute to the organization's mission, vision, and goals. The business analyst comes on the scene even before a project is formally chartered. He must understand the organization's mission, vision, and goals thoroughly, and often must contribute to organizational strategic thinking that not only affects *how* products and services are developed but *what* products and services are (should be) developed.

A business analyst begins the *Enterprise Analysis* process by gaining an understanding of the organizational environment in which a project is to be carried out and how that project can contribute to the organization's mission, vision, and goals. This may require a systematic, documented approach that often focuses on overall organization architecture and high-level business objectives. Good analyses allow management to prioritize among various projects and develop effective procedures for eliciting requirements.

## Example of Enterprise Analysis

**As an example of enterprise analysis**, consider an online shopping company that is plagued by high fuel expenses, late deliveries, incomplete or incorrect orders, and a declining customer base. The first step in performing enterprise analysis is to identify the key business objectives of the company and then identify the obstacles it faces in achieving those objectives. Next, analysts must begin identifying potential solutions to those obstacles and determine which solution is likely to be the most effective.

In our example, analysts discovered that the company's delivery department scheduled deliveries manually, which led to delivery trucks leaving the central warehouse only partially loaded and often having to crisscross the city to make deliveries. In addition, stock clerks were not documenting the contents of the boxes they filled so some boxes had missing items while others had duplicate items.

Thus, the objectives of the "delivery improvement project" were to:

1. Reduce fuel expenses
2. Decrease the time needed to deliver boxes of products
3. Increase the accuracy of the orders
4. Retain and eventually expand the customer base

Actually, item number 4 is probably the overarching goal; in order to achieve number 4 one must first achieve items 1, 2, and 3.



## Example of Enterprise Analysis

Eventually, the analysts concluded that

- a computer-based scheduling approach could route the delivery trucks more efficiently and help reduce both fuel consumption and delivery times, and
- a database-driven inventory control system could increase the accuracy of the shipments.

**These requirements uncovered by the business analyst are *high-level* requirements.**

With further research and analysis, a business case was defined and presented to management showing how much money would be saved and how much new business might be generated by implementing the project.

Note that we haven't yet gone into any of the details of exactly what the new systems are going to look like - so far we've been focused on "big picture" outcomes.

## Other Knowledge Areas

### Business Analysis Planning and Monitoring

After a business analyst has a reasonable idea of what his project is trying to achieve, he needs to work on **planning** how the business analysis activities are going to be performed. As part of this plan, he'll also determine how to assess the progress of the business analysis effort once it is ongoing - the **monitoring** component of the plan.

A list of typical **business analysis activities** for Planning and Monitoring:

- Defining and determining the business analysis processes that will be used
- Identifying the stakeholders and defining their roles and responsibilities in the business analysis effort
- Planning how requirements will be approached, traced, and prioritized
- Determining the deliverables that the business analyst will produce
- Developing estimates for business analysis tasks, as well as determining the metrics that will be used for monitoring business analyst work



## The Elicitation Knowledge Area

Per the BABOK®, elicitation "is an activity within requirements development that identifies sources for requirements and then uses elicitation techniques (e.g., interviews, prototypes, facilitated workshops, documentation studies) to gather requirements from those sources."

Projects can fail if the end product either doesn't function correctly or doesn't do what the users want it to do. In the latter situation, the problem can usually be traced back to poor requirements gathering, which is why we want to emphasize how important it is to **plan the requirements elicitation process** carefully. It is imperative to find out as precisely as possible what the users (and other stakeholders) want the solution to do.

***Back to our online shopping company...***

Let's focus on the system for scheduling and routing deliveries. The users of this system include truck drivers, loading dock dispatchers, inventory managers, and others. The business analyst would start by going to these **stakeholders** to find out how they perform their work and what specific functions they need the system to perform. Stakeholders with roles in processes are also known as actors. Look up a description for actors on page 204 of the BABOK.®

In addition, she would talk to supervisors and other managers who want to monitor the delivery process to see what kinds of information they would find useful.

In planning these visits, the analyst needs to schedule meetings, identify the best **elicitation** techniques, and ensure that her activities are well-coordinated with the activities of others working on her project team.

- For other stakeholders and their role in a project, [click here](#).
- For a list of elicitation techniques, [click here](#).



## Overview of the BABOK® Knowledge Areas

### Requirements Management and Communication

We already alluded to the notion that documented requirements must be communicated to stakeholders and others in the project. The Requirements Management and Communication knowledge area covers the activities necessary to **communicate** or express the requirements to various audiences and **manage** conflicts, issues and changes in order to ensure that stakeholders remain in agreement with the solution. Actually, communication usually takes place in tandem with the requirements analysis phase and is likely to be an iterative process involving both sets of activities.

**For instance**, the first draft of a requirements document may need to be revised several times as stakeholders ask questions and possibly introduce new requirements. As a project solution is built, a continuous review process might introduce further changes to the requirements, which would call for the documentation to be updated.

A business analyst must be able to adapt the message to the audience. That is, she should use communications methods that are appropriate for the intended audience. For example, an organization's upper management would not be very impressed by a PowerPoint presentation that features Unified Modeling Language (UML) diagrams for a proposed software solution, but a team of software developers would take to it immediately because this is "language" they understand implicitly.

Usually, requirements are presented as a package that contains all the relevant information in various formats that appeal to a variety of audiences. This package then winds its way through a series of reviewers (or review committees) to ensure that all key stakeholders give their approval for the project to proceed.

## Overview of the BABOK® Knowledge Areas

### Requirements Analysis

Once the needs of the users and stakeholders have been gathered, the business analyst can begin thinking about solutions. A thorough analysis might reveal solutions or constraints that were not apparent at the beginning.

For example, users might be clamoring for better computers and software to track their work but in fact what is needed is better, more efficient, processes. The solution may not require new computers and software at all - just a little re-engineering of existing processes. Computers and software are great tools for conducting business, but if the business processes are flawed, introducing more (or fancier) technology won't solve any problems.

After analyzing the requirements and other relevant contextual facts about the project, the business analyst must document those requirements in a clear and detailed way so stakeholders can make decisions about project options and developers can start creating a technical solution.

In our online shopping company example, the business analyst will eventually talk to a large number of people who have a stake in the scheduling and routing system. Documenting their comments and needs in a systematic manner will allow the analyst to create detailed and effective communications documents for the company's managers (who want to be assured that their money will be well-spent) and information technology personnel (who need a clear understanding of what they will be building).

## Overview of the BABOK® Knowledge Areas

### Solution Assessment and Validation

The last knowledge area, *Solution Assessment and Validation*, addresses activities carried out to ensure that the solution both functions correctly and meets the needs of the users and other stakeholders. Some business analysts also become involved with the deployment process and may help users make the transition from the "old" way to the "new" way of doing things. These activities are familiar to software developers who refer to them as *testing*, *verification*, and *validation*. In fact, business analysts on software projects often help develop the testing procedures working closely with testers. In some companies, the analysts themselves conduct the testing.

In a well-managed project, assessment and validation are built into the project activities from the start. This allows problems to be identified early - before they become costly to solve.



Remember, a solution must satisfy two overarching objectives:

1. It must *function* as the designers intended
2. It must *do* what the stakeholders said they wanted

Not only must everything work, but the solution must serve the needs of the users and other stakeholders.

Taking a last look at our online shopping example, the business analyst assessed the proposed new routing system in terms of usability and functionality before doing away with the "old" system.

After the software developers implemented user comments and suggestions, and the delivery routes calculated by the system were found to be indeed more efficient, the formal "switchover" to the new system took place.

## Test Your Understanding

Drag the correct six knowledge areas to the business analyst's briefcase.

## Underlying Competencies for the Business Analyst

The specific job qualifications of a business analyst can vary substantially from organization to organization. Just go online and do a search on "business analyst" and see for yourself!

However, there are several characteristics that most, if not all, business analysts must have.

They include:

- Critical thinking skills - the natural ability to ask questions about anything and everything at many levels of detail
- Analytical skills - an obvious characteristic, this is the innate desire to understand how and why things work, and to look for ways to make things work better
- Logical thinking skills - the ability to envision end results and then plot a path to achieving them through a step-by-step process
- Communication skills - the ability to effectively communicate information both verbally and in writing to the appropriate target audience



## Underlying Competencies for the Business Analyst

***Do business analysts need to know about information technology? If so, how much do they need to know? How about other technologies?***

The answer to these questions also can vary substantially among organizations. Some business analysts work only with IT projects while others may never come into contact with IT solutions. Some business analysts work with all possible kinds of solutions at some point in their careers.

Granted, most business analysis today seems to involve IT solutions, but the approach to performing the various BA activities described in this course are easily adaptable to all kinds of projects.

Most organizations have technical staff members who acquire the knowledge or hire an integration consultant to address the technical issues. The *business analyst*, for example, would work closely with this consultant and ensure that the completed solution delivers on the business requirements, objectives, and expectations (BABOK® ref, *Evaluate Solution Performance (7.7)*), while meeting technical specifications.

## **Online Resources for the Business Analyst**

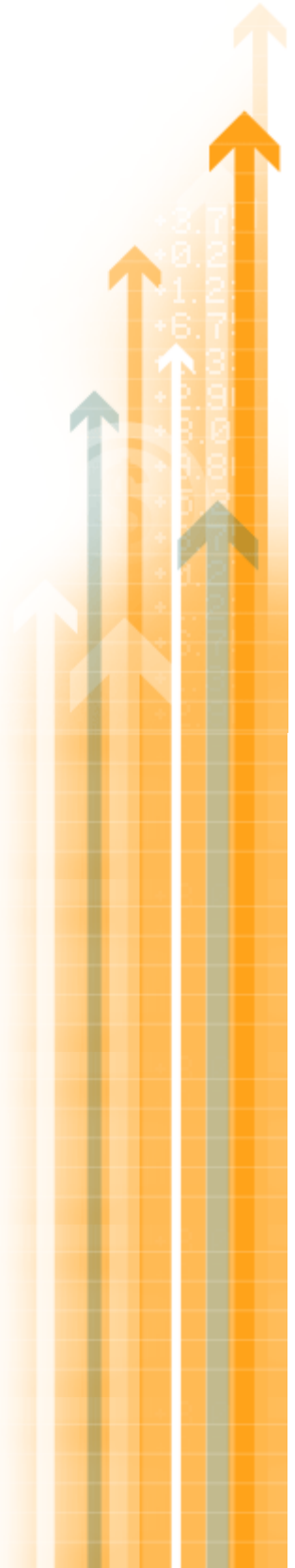
Both YouTube and Slideshare have a wealth of resources for business analysts. Here are just a few links to get you started.

View more [documents](#) from [Procept Associates](#).

*From the BA Collective on YouTube.*

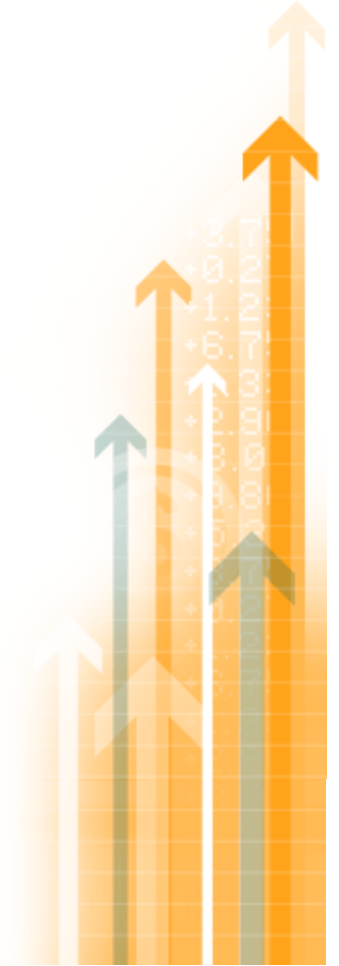
## ➔ Self Check

- 1. Adam Smith's "Wealth of Nations" presented a clear case for the need for businesses to create a business analyst position.**  
True  
False
- 2. The output gains achieved through specialization created a need for even more specialization that led to functional organizational structures.**  
True  
False
- 3. Business analysis utilized by businesses to improve operations in regard to global efficiency has been around for decades and has always been integrated well throughout all departments within the organization.**  
True  
False
- 4. The systems analyst position has been created and fine-tuned to ensure that IT projects are aligned with the strategic vision of the company and that these IT projects contribute to global efficiency.**  
True  
False
- 5. Business analysts need to have general knowledge of all business functions, hands on experience with numerous process improvement tools, and IT related experience, as well as being well versed in analyzing, documenting, advising, presenting, and leading.**  
True  
False
- 6. A business analyst working on a project implementing a Radio Frequency Identification Device (RFID) system to track items through a supply chain does not need to become an RFID expert.**  
True  
False

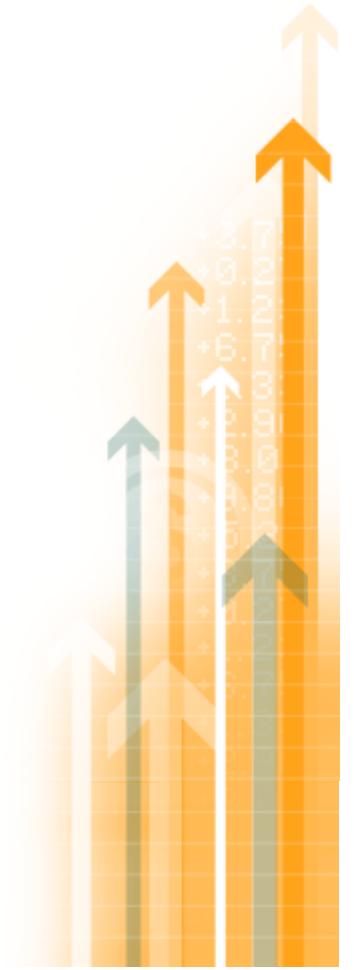


## ➔ Self Check

- 2. The main job duty of a typical business analyst is:**
- a. To serve as a liaison between the business and the IT department
  - b. To document and get approval on meeting minutes
  - c. To ensure that projects are aligned with the company's objectives
  - d. To create new processes for the organization



## ➔ Self Check





## ➔ Lesson Summary

**As a result of Adam Smith's "Wealth of Nations" and the ensuing industrial revolution, companies found they were able to increase output by using specialists.** Nonetheless, while these companies benefited by increasing output and reducing the price of their product, they also found that they needed even more specialists to run the entire organization. This increased need for specialization created its own set of unique problems as specialization led to functional organizations within enterprises. These functional organizations contributed to local optimization, but at the expense of global efficiency

**Looking at the entire process to find areas of improvement related to global efficiency is one of the key aspects of business analysis.** This practice can be traced back to well before the early 1990s, but it was during that decade that it really took off. However, until recently, the business analysis that was being utilized by business people to improve the way businesses deliver value to the customer was far removed from the technology-focused solutions that were increasingly being implemented. This has been changing, fortunately. With better communication between business process owners and those who implement technical solutions, the alignment between those solutions and organizational objectives has been improving.

**Business Analyst positions have been created and fine-tuned to conduct business analysis in a way that ensures projects involving IT and other technical solutions are aligned with the strategic vision of the company, and that these IT projects contribute to global efficiency.** These positions require general knowledge of business functions, hands-on experience with numerous process improvement tools, and in some cases specific technical experience. These positions include activities such as analyzing, documenting, advising, presenting and leading.

