

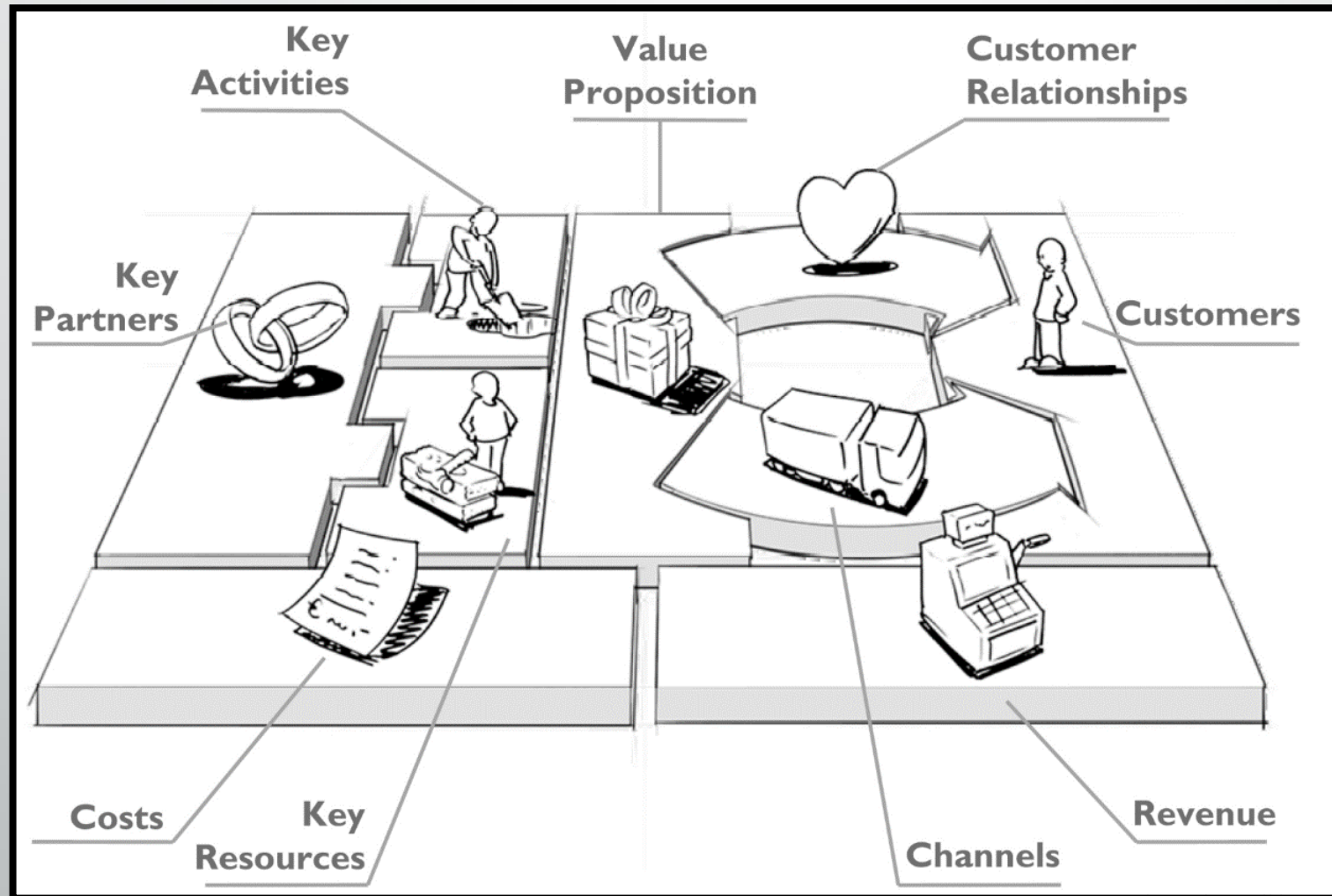


CO457

Business Modelling

Week One

The Modelling Approach



Why Model the Business?

- To **redesign the business processes**
 - Business Process Reengineering (BPR)
 - Business Process Simplification (BPS)
 - Business Process improvement (BPI)
- To **reorganise the business** structure
 - Not a change in business work flow



Why Model the Business?

- For **strategic planning**
 - Model the business architecture
 - The **current "as-is"** architecture
 - The **future "to be"** architecture
- To scope a **business automation opportunity**
 - Described and justified in a business case
- To describe **user and system requirements for an IT system**



Business Analysis Body of Knowledge

- A Guide to the **Business Analysis Body of Knowledge** (BABOK Guide) Developed by the IIBA
<http://www.iiba.org/babok-guide.aspx>
- Providing business analysts with generally accepted **best practices in business analysis**
 - Proven, generally accepted, and widely applied
- Describing business analysis areas of knowledge
- The **Certified Business Analysis Professional (CBAP) credential exam** is based on the contents of the BABOK Guide

Business Analysis

- "Business analysis is the **set of tasks and techniques used to work as a liaison among stake holders in order to understand the structure, policies, and operations of an organisation**, and to recommend solutions that enable the organisation to achieve its goals."
- The responsibilities of a person with the job title of Business Analyst (BA) varies significantly between organisations



BABOK Modelling Techniques

- BABOK modelling techniques:
 - **Business rules analysis**
 - Data dictionary and glossary
 - Data modelling
 - **Functional decomposition**
 - **Interface analysis**
 - Metrics and key performance indicators
 - **Non-functional requirements analysis**

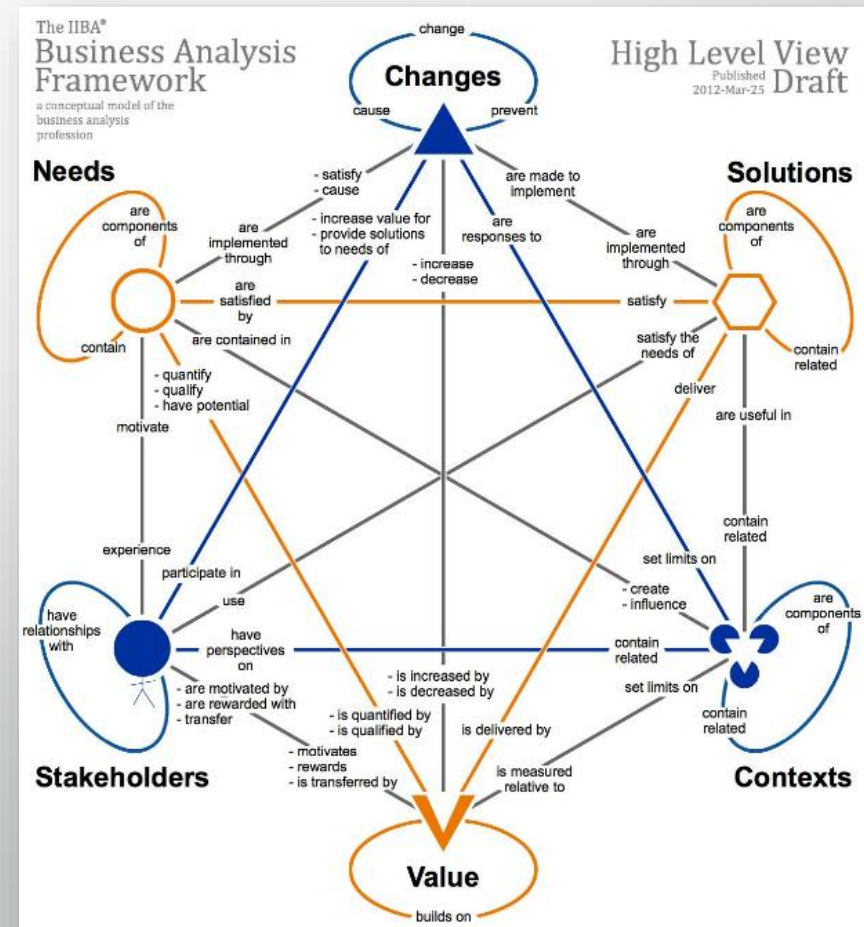
iIBA® International Institute
of Business Analysis

A Guide to the
*Business Analysis Body of
Knowledge® (BABOK® Guide)*



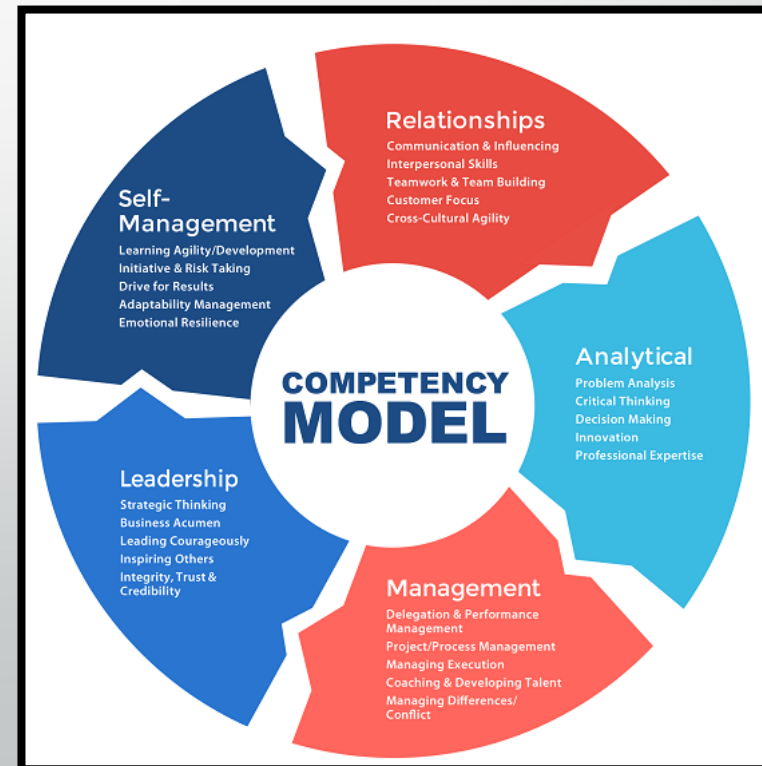
BABOK Modelling Techniques

- BABOK modelling techniques:
 - Organisation modelling
 - **Process modelling**
 - Requirements workshops
 - **Scenarios and use cases**
 - Scope modelling
 - **State diagrams**
 - SWOT analysis



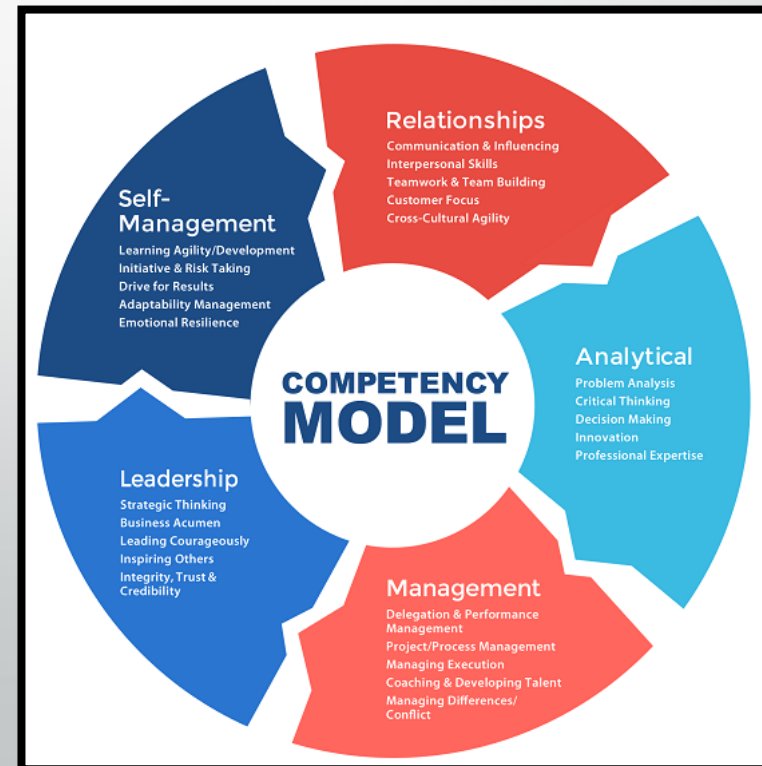
BABOK Underlying Competencies

- Underlying competencies
 - Skills, knowledge, and personal characteristics
 - **Analytical thinking and problem solving**
 - Behavioural characteristics
 - **Business knowledge**



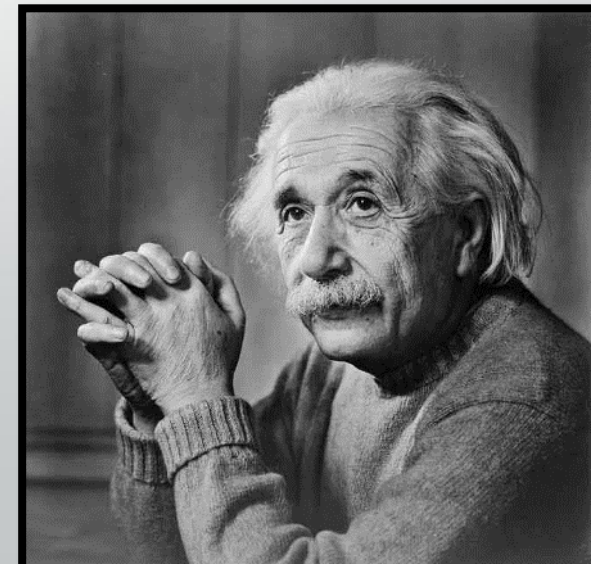
BABOK Underlying Competencies

- Underlying competencies
 - **Communication skills**
 - Presentation/speaking skills
 - Writing skills
 - Drawing skills
 - Interaction skills
 - Facilitation skills
 - Software applications
 - Tool usage



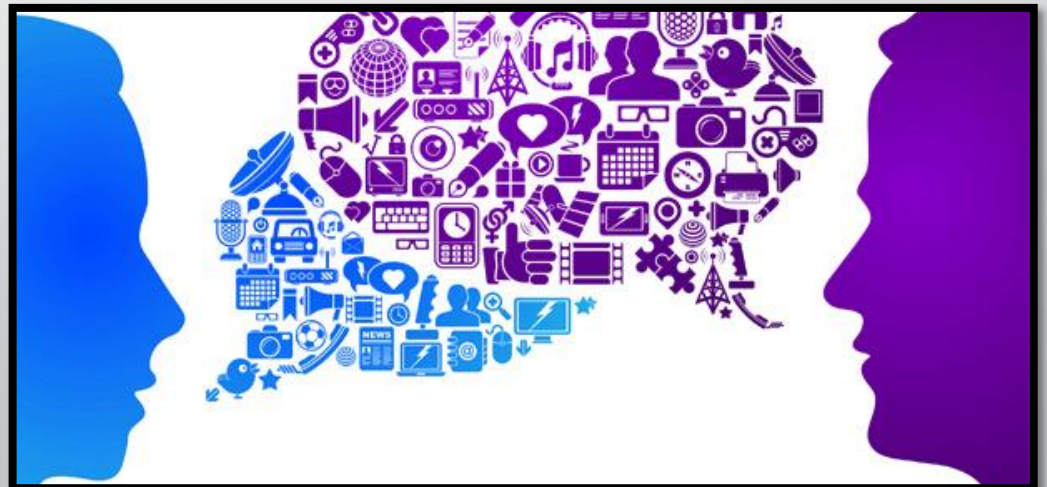
Modelling Requires Communication Skills

- Model = **Diagram (optional), Text (mandatory), and Numbers (optional)**
- Diagram for visual communication
 - Usually one diagram per model
- ***"If I can't picture it, I can't understand it."***
Albert Einstein



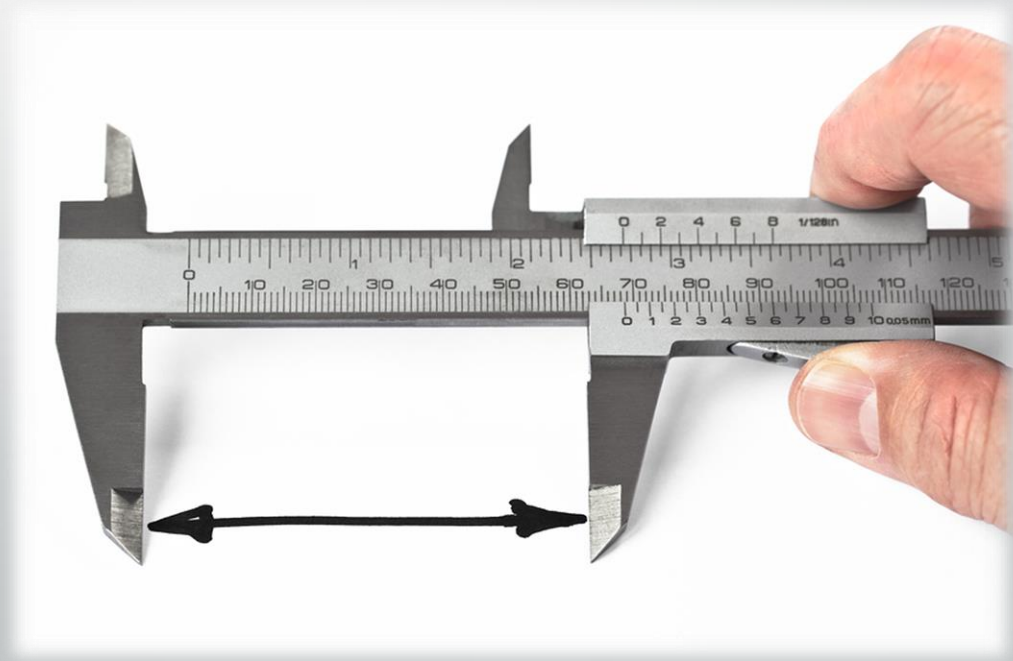
Modelling Requires Communication Skills

- Text for written/verbal communication
 - Many pages of **documentation**
 - More details in the text than on the diagram
 - Structure the text with **headings, bullets, numbers, tables, and matrices**
 - Use a question mark (?) to highlight assumptions and unknowns



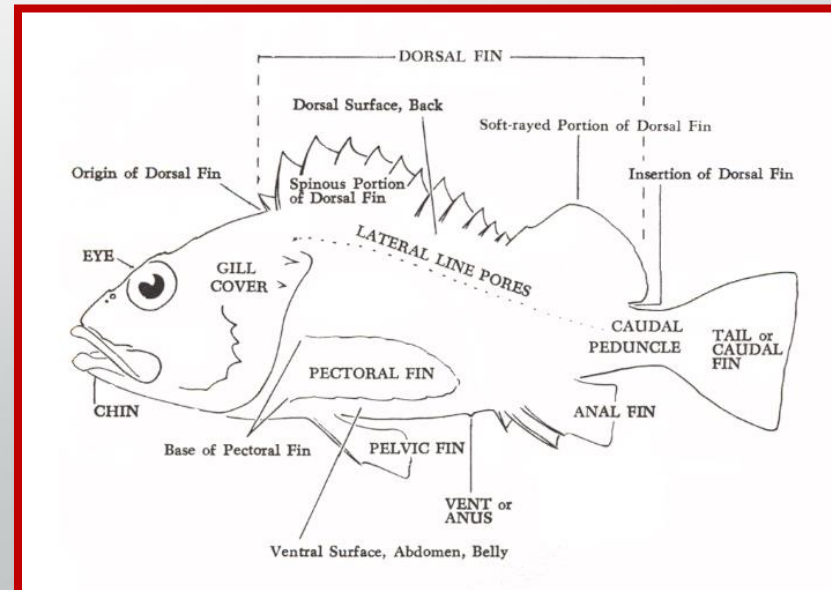
Modelling Requires Communication Skills

- Numbers and units for communicating measurable quantities
 - Project **justification**
 - Key Performance Indicators (KPIs)
 - **Testing**



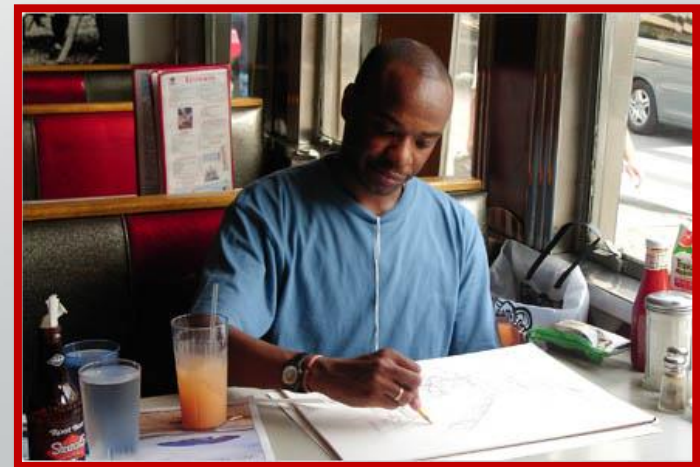
Business Modelling

- The art of Business Modelling lies in being able to effectively articulate **a picture of the business, either 'as is' or 'as it might be'**
- In order to be successful a Business Analyst must be able to present their work using **visual aids, as well as verbal presentations**
- It is beneficial to be able to **communicate in words and diagrams** with equal proficiency



Business Modelling

- **The audience that reviews your models will tend to gravitate toward the words or diagrams in the model,** whichever they find more natural
- You, therefore, need to be able to use both writing and drawing skills to express yourself
- Note that there are readers with equal verbal and visual skills that will be **checking the consistency between the model's diagrams and text**



The Business Modelling Project Scenario

- Bev and Bob operate a thriving restaurant
- You have just been hired as a new business analyst at BAs Unlimited
- BAs Unlimited has a contract with Bev and Bob to document the restaurant's business processes for:
 - **ISO 9001 certification (International Organization for Standardization)**
 - **Training new employees**
- You realise this is an ideal opportunity to improve your business modelling skills

The Business Modelling Project Scenario

- You can see the similarity to your previous organisation
 - All the same **financial, employment, sales, and marketing issues apply**
 - The dining room is involved in **customer service while also selling a product**
 - The kitchen is like a **production facility**
 - The restaurant uses **IT systems**



Business Modelling Tools

- Software applications that allow business analysts to:
 - Draw **professional-looking diagrams**
 - Add **textual descriptions**
 - Include numeric information
 - **Model and simulate business processes**
 - Design business interfaces (forms and reports)
 - Make modifications rapidly
 - Capture the complexity and **levels of detail**
 - Share models
 - Produce documents containing business models

Select the Tools to Use

- Tools vary in sophistication and cost
- General-purpose **computer-aided software engineering (CASE) tools**:
 - Enterprise Architect from Sparx Systems
 - Visio 2010 from Microsoft
 - Visual Paradigm for UML Community Edition from Visual Paradigm



Select the Tools to Use

- **Business Process Management Modelling (BPM) and simulation tools:**
 - Appian BPM Suite from Appian <http://www.appian.com>
 - ARIS from Software AG <http://www.softwareag.com>
 - IBM Business Process Manager
 - Business Studio from TIBCO Software
 - ProVision from OpenText
 - WebSphere Business Modeller from IBM



Who Is Involved in Business Modelling?

- Stakeholders are involved in modelling the business
 - People or organisations
 - **Involved in the project**
 - Whose interests may be **affected by the project**
 - Who **may have an influence** on the project
 - **Internal and external** to the business
 - Stakeholder roles
 - Business analysts
 - Participants
 - Audience



Activity: The Stakeholder List

- When starting any project the first thing that you have to know is; who are the Project Stakeholders?
 - Read through the case study and **make a list of all of the Stakeholders**

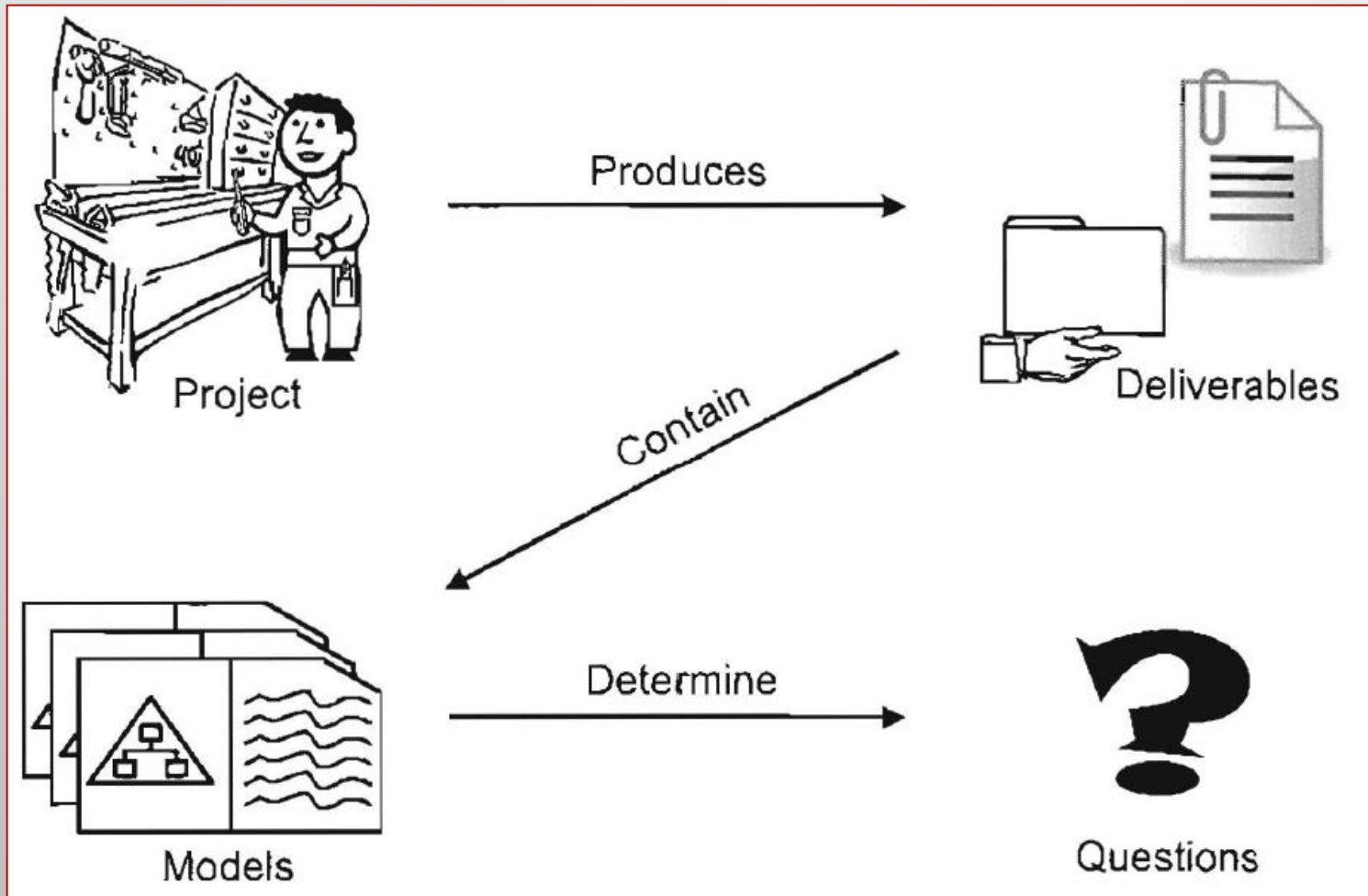


Who Is Involved in Business Modelling?

- Business analysts:
 - Model the requirements
- Participants:
 - A representative subset of stakeholders
 - The sources of requirements
- Audience:
 - Read the requirements and deploy the solutions specified in the models



Where Does a Business Analyst Start?

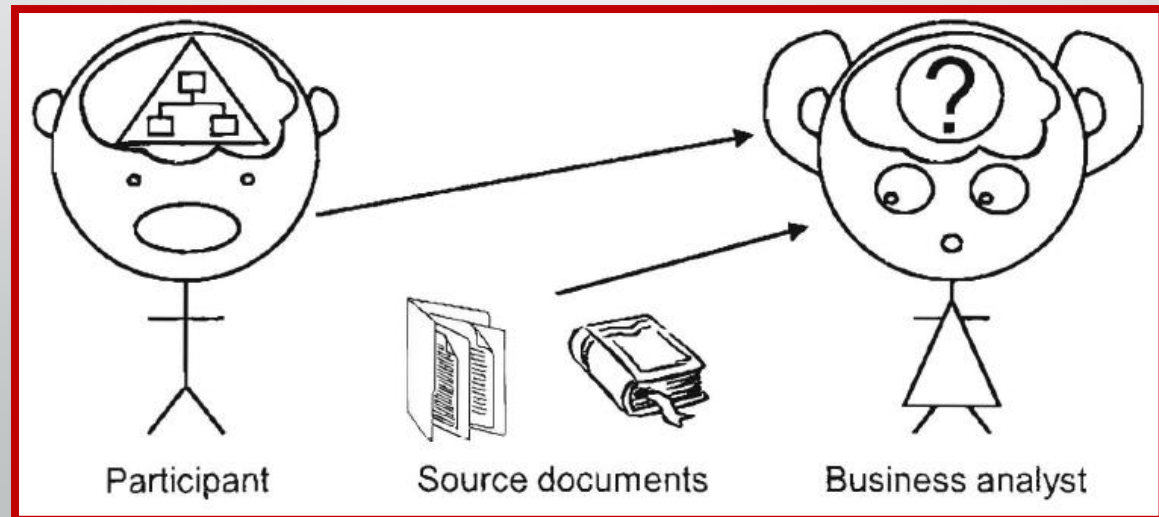


Where Does a Business Analyst Start?

1. Determine the type of project
2. **Identify its deliverables** and the models they contain
3. For each model, determine what you need to know to produce it
4. **Profile stakeholders and identify knowledgeable participants**
5. Determine the questions to ask based on **what you need to know**
6. **Elicitation**: ask those questions
7. **Analysis**: understand the answers
8. **Documentation**: add the answers to the model
9. **Communication**: present the model
10. **Validation**: obtain feedback and iterate at step 5

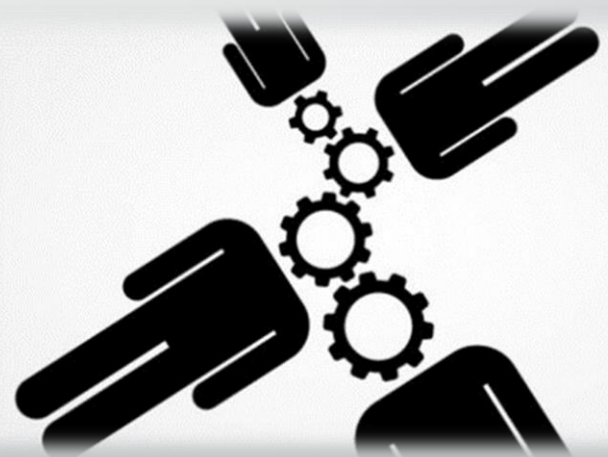
The Modelling Approach

- Elicitation
 - Gather requirements
 - Identify and question participants
 - Using **interviews, surveys, workshops, prototypes**
 - **Observe the business**
 - Find and read source documents



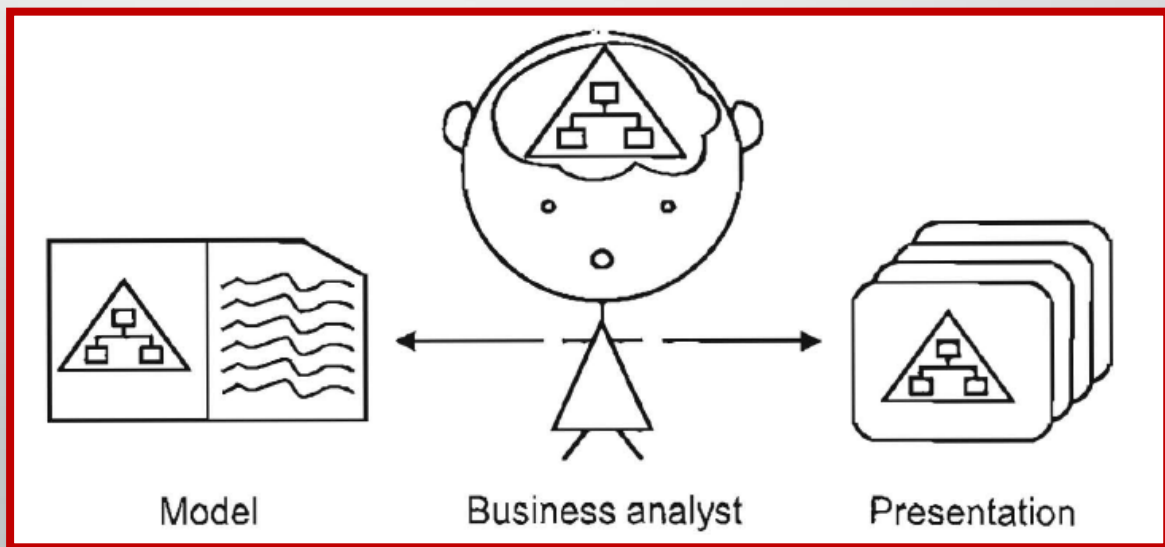
Activity: Employee Descriptions

- Now that you have some understanding of who the Stakeholders are in the project, let's establish who does what in Bev and Bob's Restaurant in more detail.
 - Read through the case study and write down a short description for each employee that describes **what they do and when they do it.**
 - Then create a table showing brief **employee descriptions** for everyone involved in the case study project.



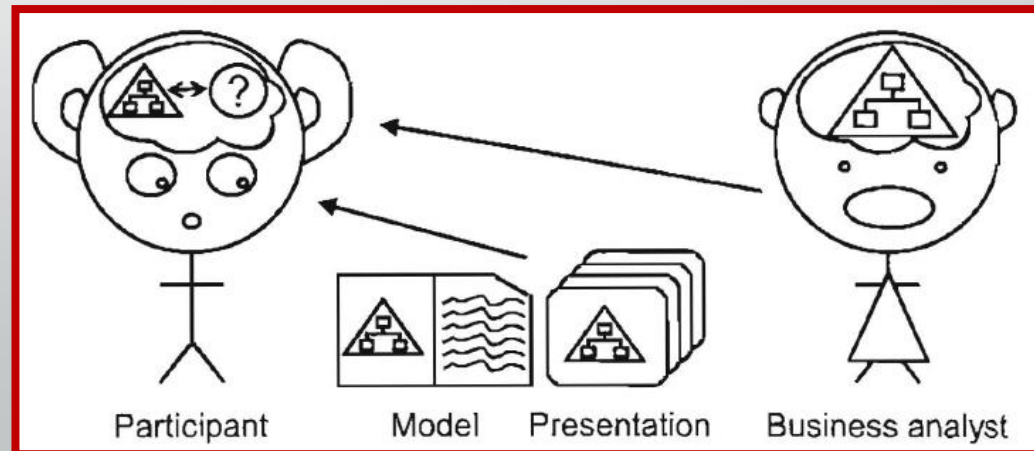
The Modelling Approach

- Analysis and Documentation
 - Understand the information
 - **Model your understanding**
 - Draw diagrams
 - Write descriptions
 - Produce a **document and/or presentation**



The Modelling Approach

- **Communication and Validation**
 - Deliver the document or presentation
 - Participants review the model
 - Read the documentation
 - Attend the presentation
 - **Validate the model against their knowledge**
 - Provide feedback or sign-off



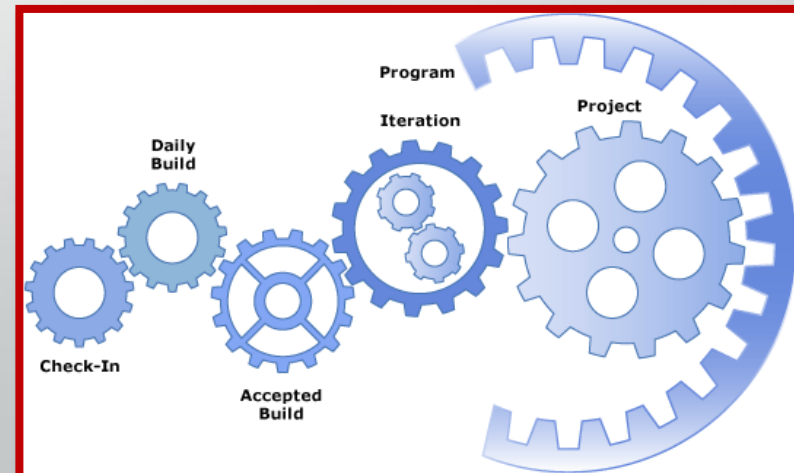
The Modelling Approach

- **Iteration is a best practice**
 - Based on the fact that for anything complicated
 - **You cannot get it right the first time**
 - It is rare that you get it right the second time
 - Each iteration ends with a review of the model



The Modelling Approach

- The rule of thumb says that each **iteration corrects approximately 60 percent of the mistakes or missing items in the previous version**
 - First iteration-60 percent correct
 - Second iteration-85 percent correct (approximately)
 - **Third iteration-95 percent correct (approximately)**
 - Three iterations are usually good enough to go to the next stage of the project



BA Projects, Deliverables, and Models

- Know your projects types, deliverables, and models
- Strategic planning projects produce:
 - **A strategic business plan** that contains:
 - An enterprise architecture
 - **"As is" and "to be" models**



BA Projects, Deliverables, and Models

- Projects to identify business opportunities produce:
 - **Business cases that justify projects and contain business requirements**
 - Project charters and project plans contain business requirements
- Business Process Improvement and automation projects produce:
 - Stakeholder and solution/system requirements

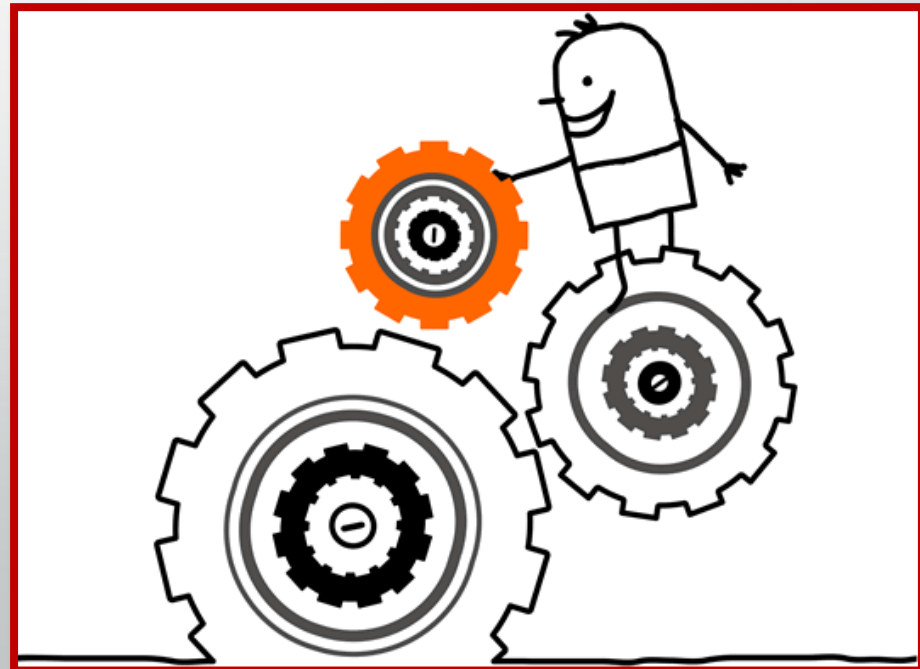




What Is a Business Model?

A Business Is a System

- A business is:
 - A system
 - **A System is 'An organized set of elements functioning as a unit'**
- Models can describe both:
 - Business systems
 - Software systems



A Business Is a Multidimensional System

- A business is **a complex system**
 - **Involving people, equipment, and buildings**
 - **Organised** into departments
 - Performing functions in sequence and/or in parallel
 - Processing goods, money, and/or information
 - Dealing with external parties
 - Supplying and/or receiving
 - Goods, money, and/or information
 - Constrained by internal and/or external laws or rules

Activity: Inventory List

- Because a business is a complex system we have to break it down into its constituent parts
- Read through the case study and then create a table clearly showing an inventory list of appropriate equipment used within the bar; dining area; kitchen and back office



CW₁ Task 1: Employee Table for the Restaurant

- Create an employee table that documents the following information:
 - The employees name
 - Their job title
 - A detailed description of their role
 - The number of hours of they work per week
 - Activities they are involved with on a day to day basis
 - Length of service
 - Code of conduct

CW₁ Task 1: Employee Table for the Restaurant

- Create an employee table that documents the following information:
 - Training requirements
 - Transferable skills
 - Salary
 - The restaurant department they primarily associated with
 - The restaurant departments they have interactions with
 - Who is their line manager
 - Equipment that they use on a daily basis
 - Equipment description