

Business Analysis Essentials for Project Managers

PMI-Orange County
Advanced Topics Seminar
July 11, 2009

Course Objectives

- In this course you'll learn to:
 - Identify the difference between a requirement and a specification
 - Utilize a requirements traceability matrix
 - Design tests to validate requirements
 - Determine the appropriate validation technique
 - Describe the link between good project management and good business analysis

Ever-changing world

- Change is Inevitable
- Organizations MUST:
 - Meet customer needs
 - Answer competitive challenges
 - Broaden their influence
 - Improve efficiency
 - Increase revenue,
 - Control costs
 - Achieve their Mission



Quote

As with new managerial developments, technical fads and silver bullets also come and go, but the good ones leave a lasting impact.

■ Sharp and McDermott

What is Business Analysis?

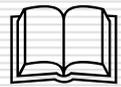
- Key Organizational Skill
- Defines and analyzes business and system processes
- Process of reviewing existing and/or future business process to determine value to the overall organization



Definition

- **Analysis.** *This process as a method of studying the nature of something or of determining its essential features and their relations: the grammatical analysis of a sentence.*

■ *Dictionary.com*

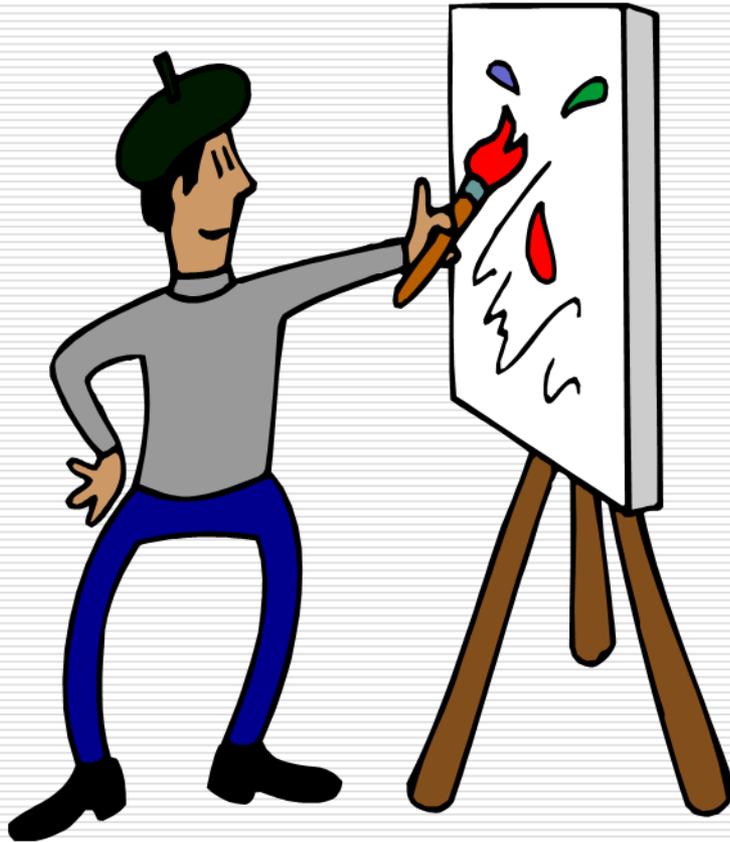


Definition

- ***Business Analysis*** *The set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and recommend solutions that enable the organization to achieve its goals.*

■ *BABOK Version 2.0 Framework*

Business Analysis – Science or Art?



- Defining the logical tasks of a business process
- Understanding the problem
- Considering multiple alternatives
- Recommending solutions

The Benefits of Business Analysis

- Do it right the first time
 - Minimize rework
 - Reduce change request
- Ensure the business problem is “solved”
 - Reducing organizational operating costs
 - Increase organizational efficiencies
 - Providing quality products to the marketplace



Definition

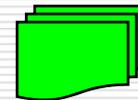
- ***Efficiency.*** *Accomplishment of or ability to accomplish a job with a minimum expenditure of time and effort:* The assembly line increased industry's efficiency.

■ *Dictionary.com*



Definition

- **Quality.** *The degree to which a set of inherent characteristics fulfills requirements.*
 - *A Guide to the Project Management Body of Knowledge*



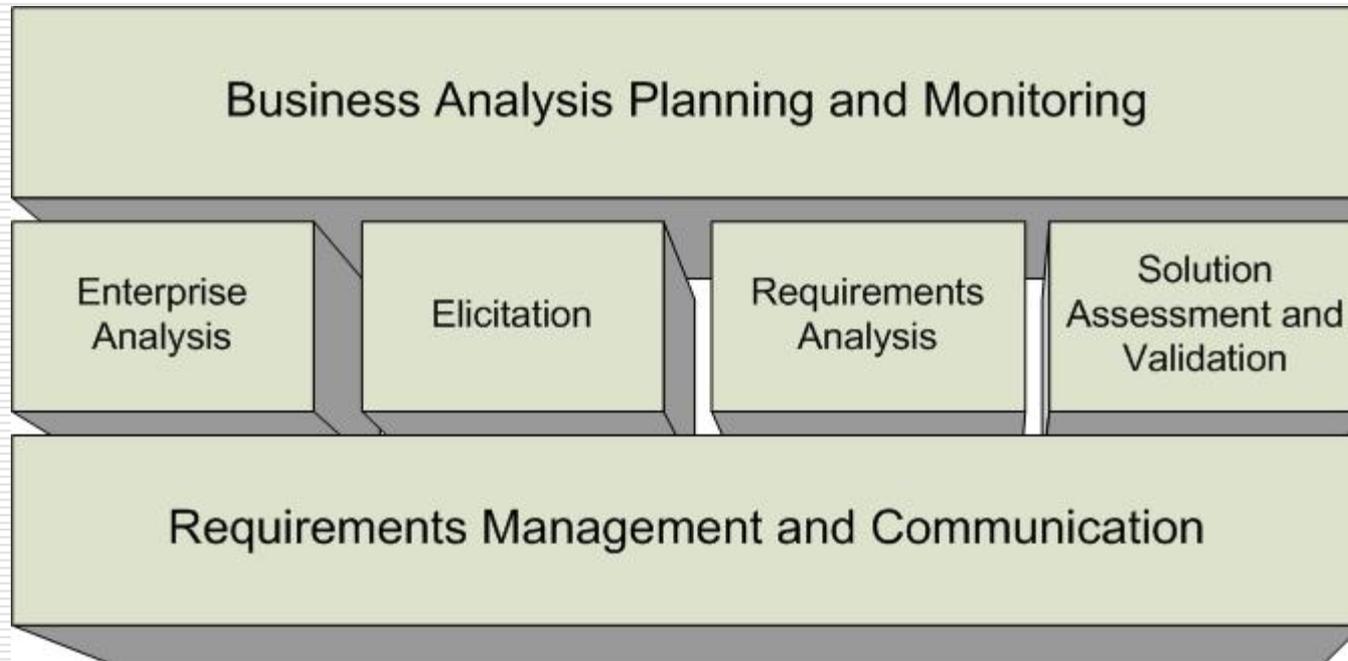
Module 1 - Class Exercise 1:

- Read the situations on the handout
- For each situation, discuss in your small groups
 - What makes the situation appear straight forward?
 - What could make the situation more complex?

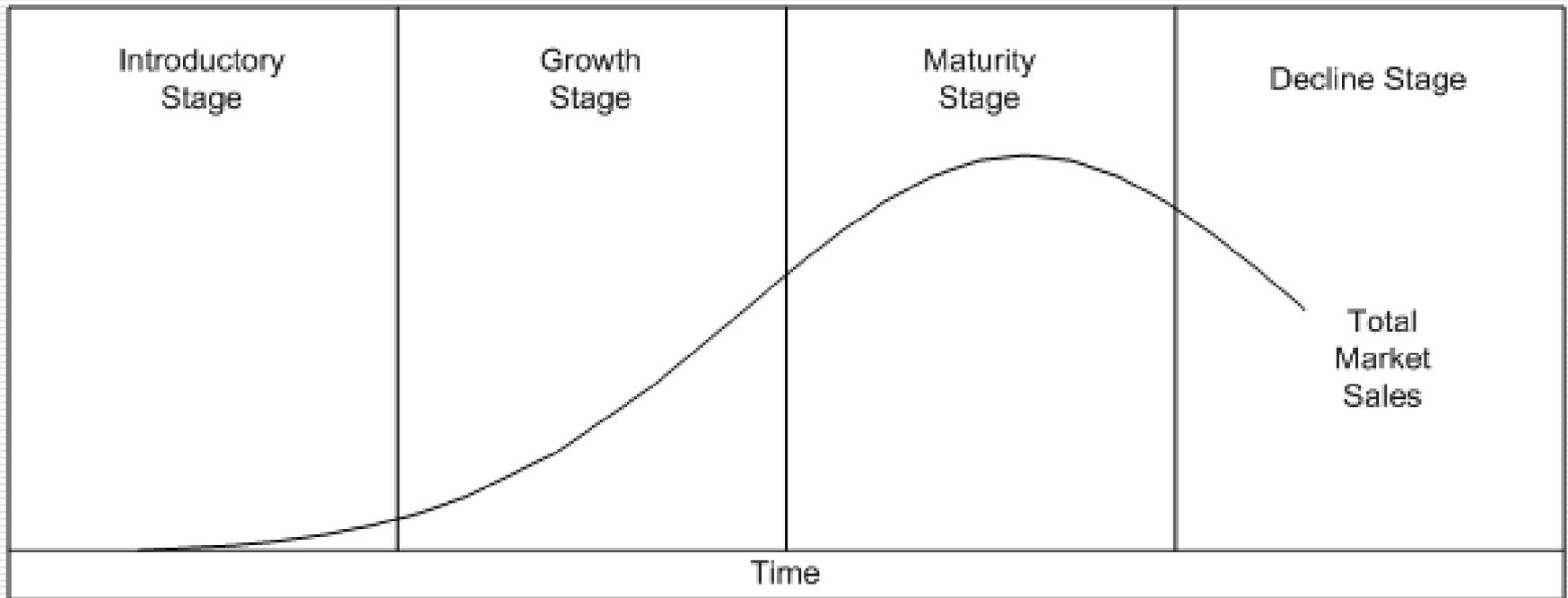
The International Institute of Business Analysts (IIBA)

- The Business Analyst Body of Knowledge
- Defines the set of tasks, knowledge and techniques required to identify needs and determine solutions to business problems
- www.theiiba.org

Business Analysis Body of Knowledge



Business Analysis and Product Management

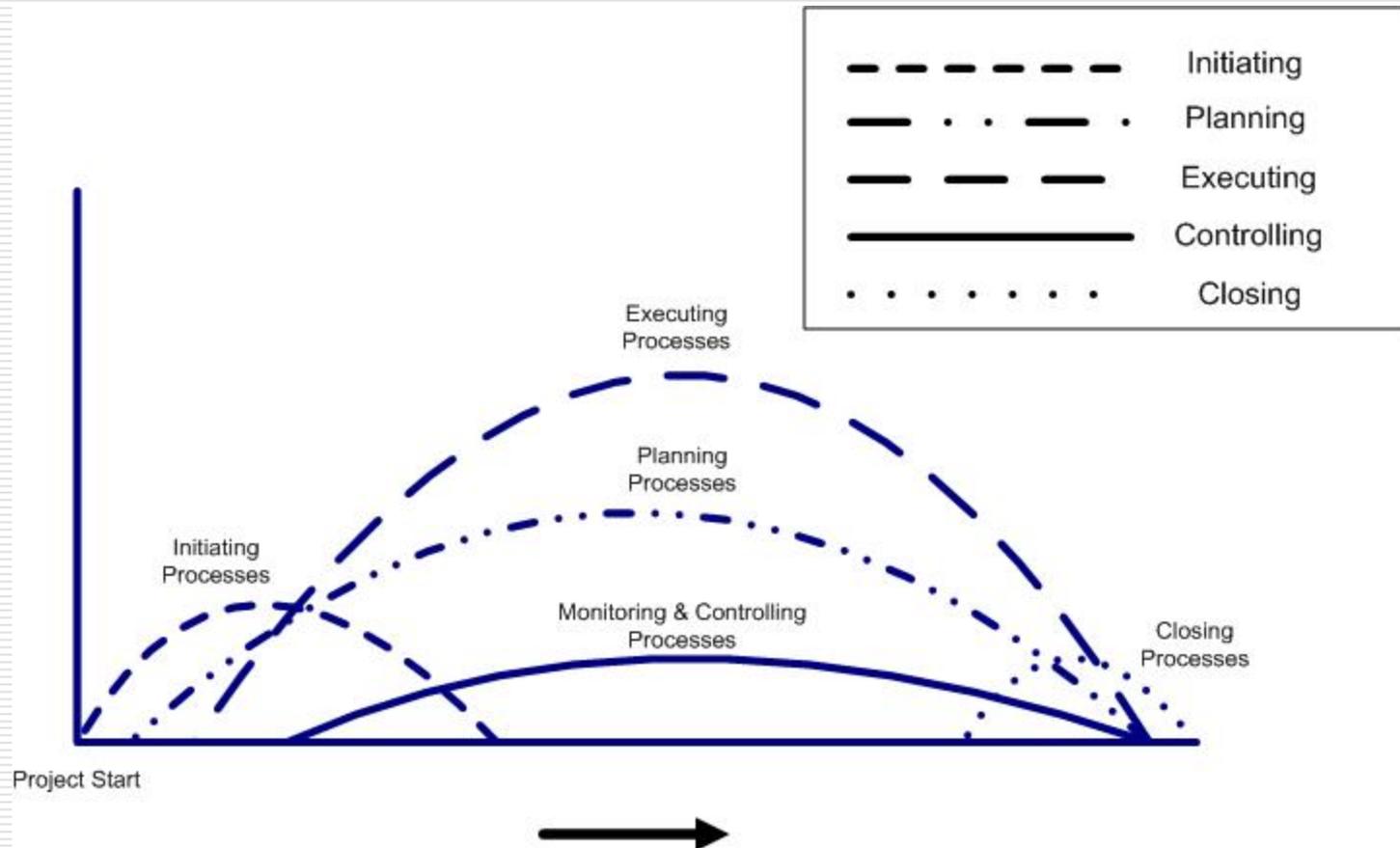


Business Analysis and Project Management – The Close Alliance

- Projects are undertaken to create something new
- Business analysis is necessary to determine the best way to change



Business Analysis and Project Management



Benefits of Business Analysis in Project Management

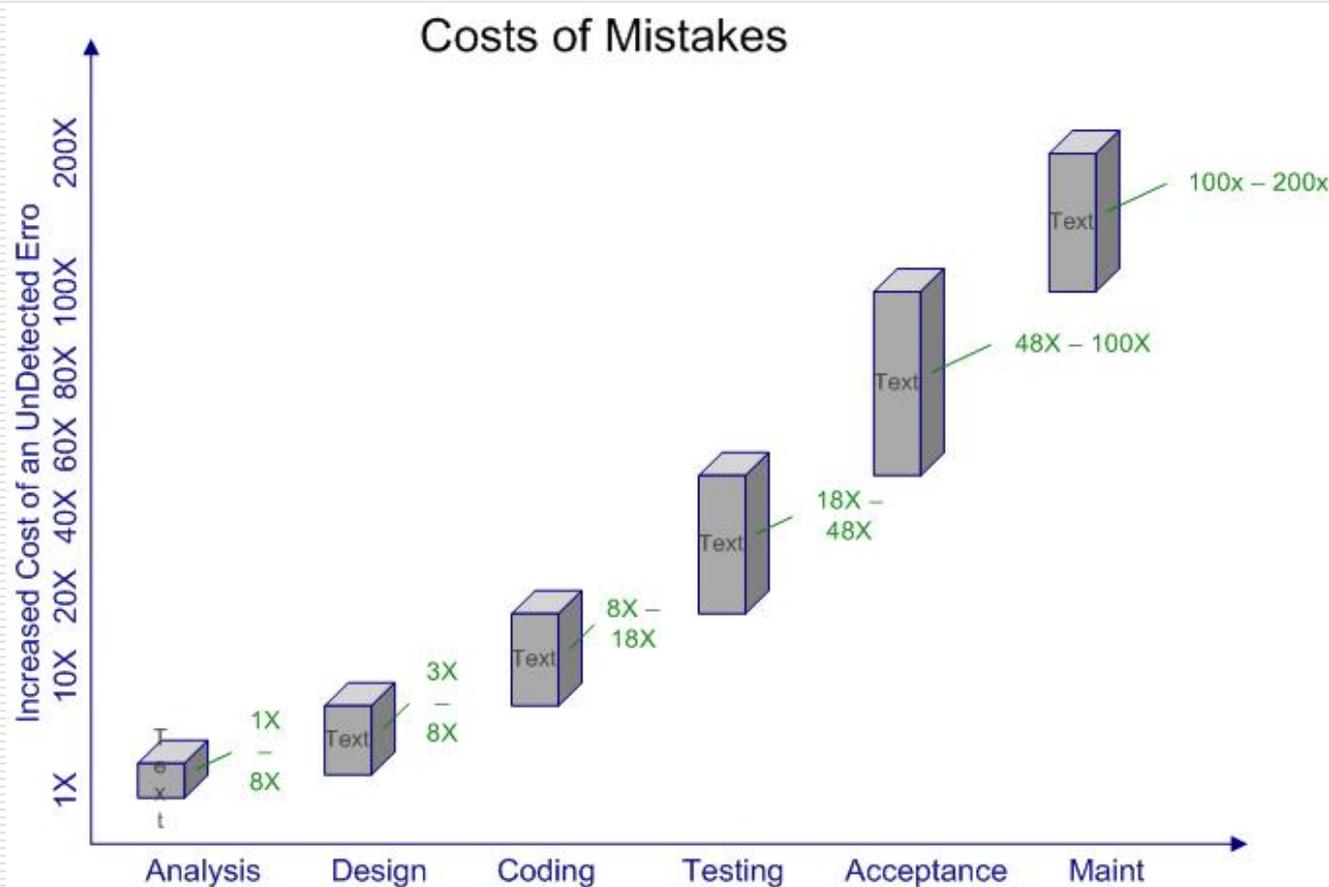
- Increase the probability that the project will deliver results
- Helps in defining scope of the project
- Help the project managers “do it right the first time”
 - Minimize rework
 - Reduce change requests

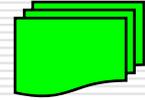
Quote

Every hour spent preventing errors will reduce repair time 3 to 10 hours

■ Caper Jones

Business Analysis & Project Management





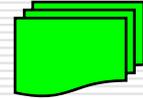
Module 1 - Class Exercise 2:

- Read the Case Study for DJ's Time for Wine web-site project.
- Complete the following:
 - Identify the Goals for the project
 - Identify the Objectives for the project

Quote

If you don't know where you are going, you might end up somewhere else.

□ Yogi Berra



Module 1 - Class Exercise 3:

- Read the Project Definition Summary for DJ's Time for Wine Web-site project
- Consider the following
 - Why was this project selected?
 - What organizational objective(s) does it support?
 - What are the needs driving this project?
 - What is the project's priority and why?
 - What will be the benefits to our organization when this project is completed?



Definition

- ***Requirement.*** *A condition or capability needed by a stakeholder to solve a problem or achieve an objective.*
 - *Business Analyst Body of Knowledge*



Definition

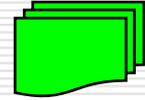
- ***Specification.*** *A document that specified, in a complete, precise, verifiable manner, the requirements , design, behavior, or other characteristics of a system, component, product, result, or service and, often, the procedures for determining whether these provisions have been satisfied.*
 - *A Guide to the Project Management Body of Knowledge*

Requirements vs. Specifications

Requirement (What we want)	Specification (How we want it delivered)
A system needs to be purchased to support a paperless environment	<p>System must support 100,000 incoming pages daily.</p> <p>System must provide for a mechanism to capture hardcopies received, faxes & emails.</p> <p>System must allow for electronic transmission of all out-bound communications associated with the IRA process</p>
The budget for purchasing a system is \$500,000 for an initial purchase and no more than 10% annual maintenance fees.	Not Applicable

Requirements vs. Specifications

Requirement (What we want)	Specification (How we want it delivered)
System must be able to provide a mechanism to track transactions per worker	<p>A reporting capability that tracks all users that have “touched” the electronic document(s) and the time for which that user had the document assigned to him/her.</p> <p>Report should include user name, number of transactions touched, and total time processing documents.</p> <p>Report must be run by user and by date.</p> <p>System must exclude non-working time.</p>
A benchmark study is needed to determine the current volume per worker capacity	<p>Benchmark study, must be developed to capture similar information to the required report to allow for comparison before and after the new system is in place.</p> <p>Study must define the total number of documents handled per user as well as the amount of time per document spent.</p>



Module 1 - Class Exercise 4:

- Review the Requirements vs. Specification exercise
- Discuss in teams whether each is a requirement or a specification.

Quote

If your words don't stick, you haven't spoken.

■ Anonymous



Definition

- ***Business Analyst.*** Person responsible for identifying the business needs of their clients and stakeholders, to determine solutions to business problems.
 - *Business Analyst Body of Knowledge*

Business Analysis Bridges

- Understanding the organization's goals for the future
- Communicating organizational goals to technical teams
- Receiving technical team ideas for organization goals



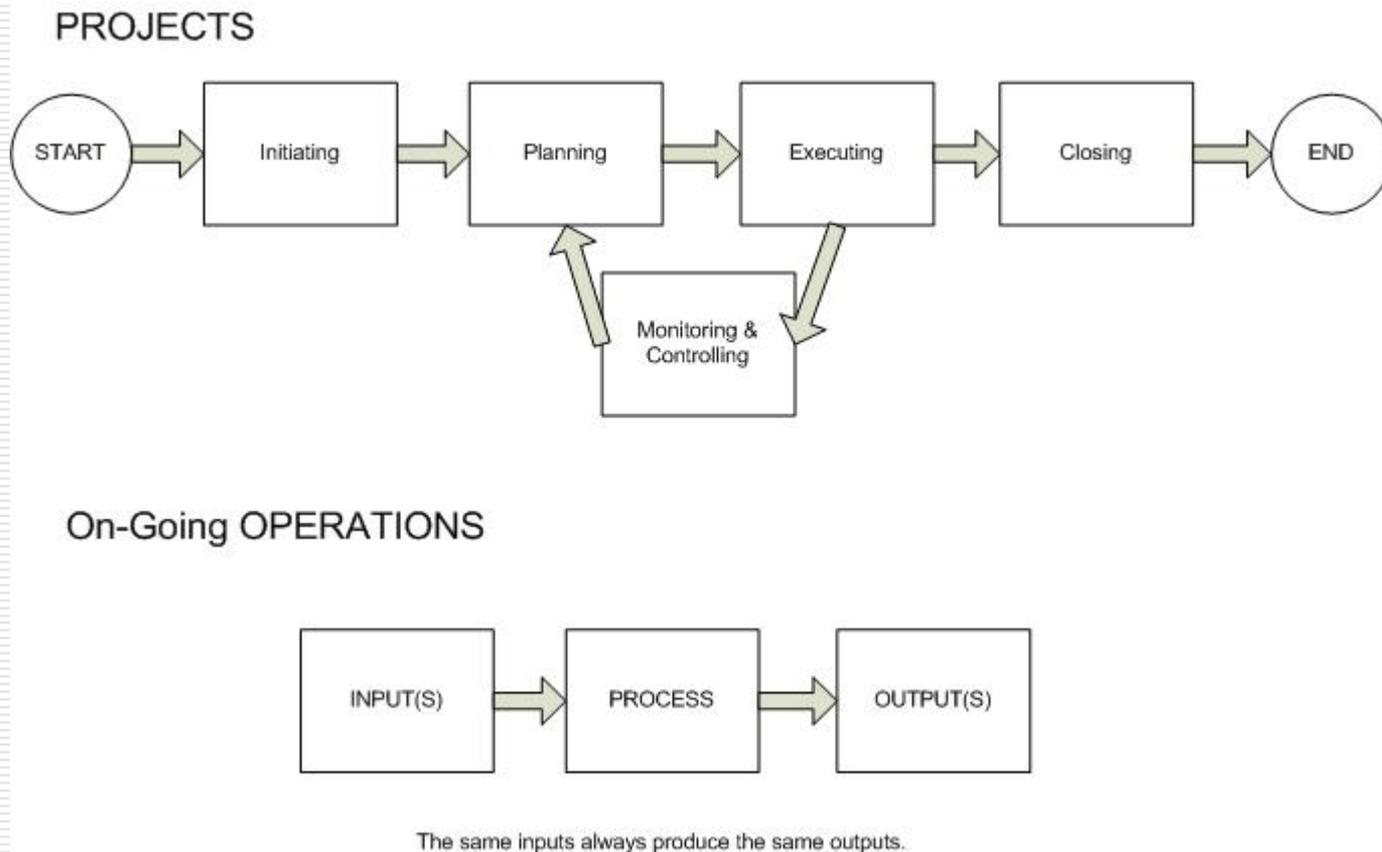
Business Analysis Roles

- Unique or in-depth knowledge of a particular Existing Business Process or System Functionality as it relates to the USE of the system.
- Knowledge of product development life cycle
- Financial roles for analyzing improvement possibilities

Business Systems Analysis Roles

- Unique or in-depth knowledge of a system's inner-workings and knowledge of the totality of features that can be used
- Ability to translate manual business processes into a more automated business process
- Integration, Database, Conversion expertise

Projects vs. On-going Operations



The Role of the Business Analyst

- **Analytical Skills**
- **Communication Skills**
 - Listening
 - Information Sharing

Analytical Techniques

- Requirements Gathering**
- Troubleshooting
- Alternatives**
- Costing
- Metrics**

Quote

It's supposed to be hard. If it wasn't hard, everyone would do it. The hard is what makes it great..

■ A League of Their Own

Requirements Gathering

- Collecting the Needs of the business
- Understand the problem
- Understand the expected outcome
- Requires:
 - Excellent interviewing skills
 - Persistence
 - Chipping away at requirements

Chipping Away at Requirements

- Iterative process
- May require multiple interviews
- Goal is to bring clarity

Alternatives

- Identify various alternatives that provide solutions to the business problem.
- Determine pros and cons
- Provide a concise way to compare alternatives
- Make recommendations

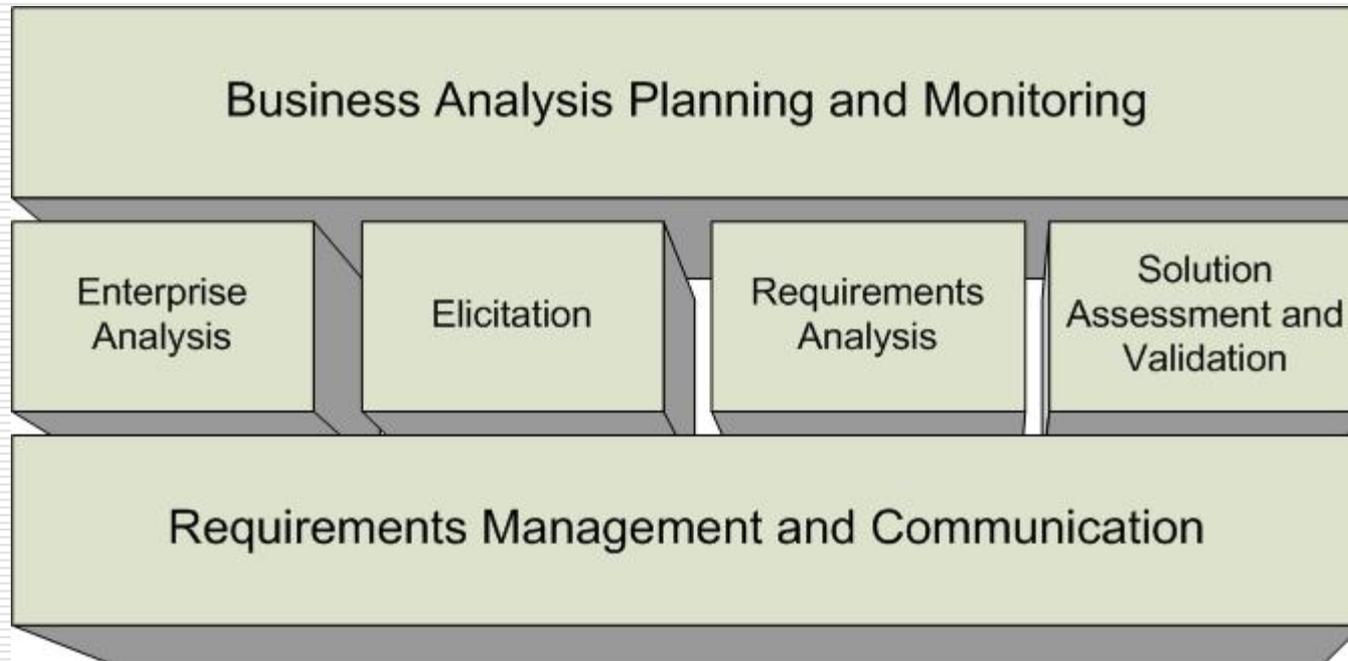
Costing

- ❑ Quantify the alternatives in terms of value to the organization
- ❑ Eases decision making process

Metrics

- Create baseline measurements
- Perform variance estimating
- Collect and analyze project results

Business Analysis Body of Knowledge



Quote

Experience shows unequivocally that if you skip entire phases...you will regret it – “adjust and experiment” does not imply “short circuit and eliminate.”

■ Sharp and McDermott

Planning and Monitoring

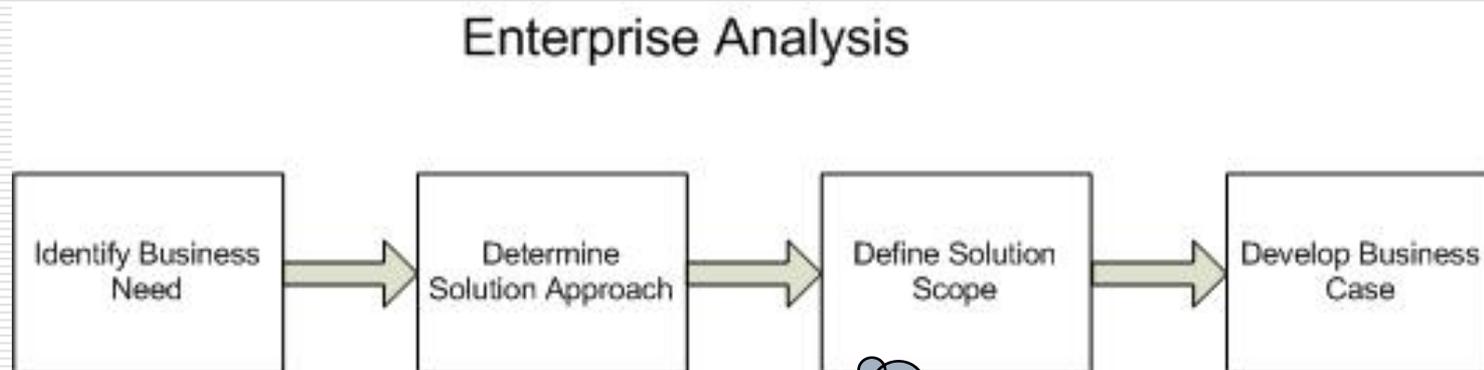


How to determine which activities are necessary to complete a business analysis effort?

Planning and Monitoring

- Conduct Stakeholder Analysis
- Plan Business Analysis Activities
- Plan Business Analysis Communication
- Plan Requirements Management Process
- Plan, Monitor and Report on Performance

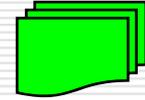
Enterprise Analysis



How do we take a business need, refine and clarify it and define a solution to be implemented?

Enterprise Analysis

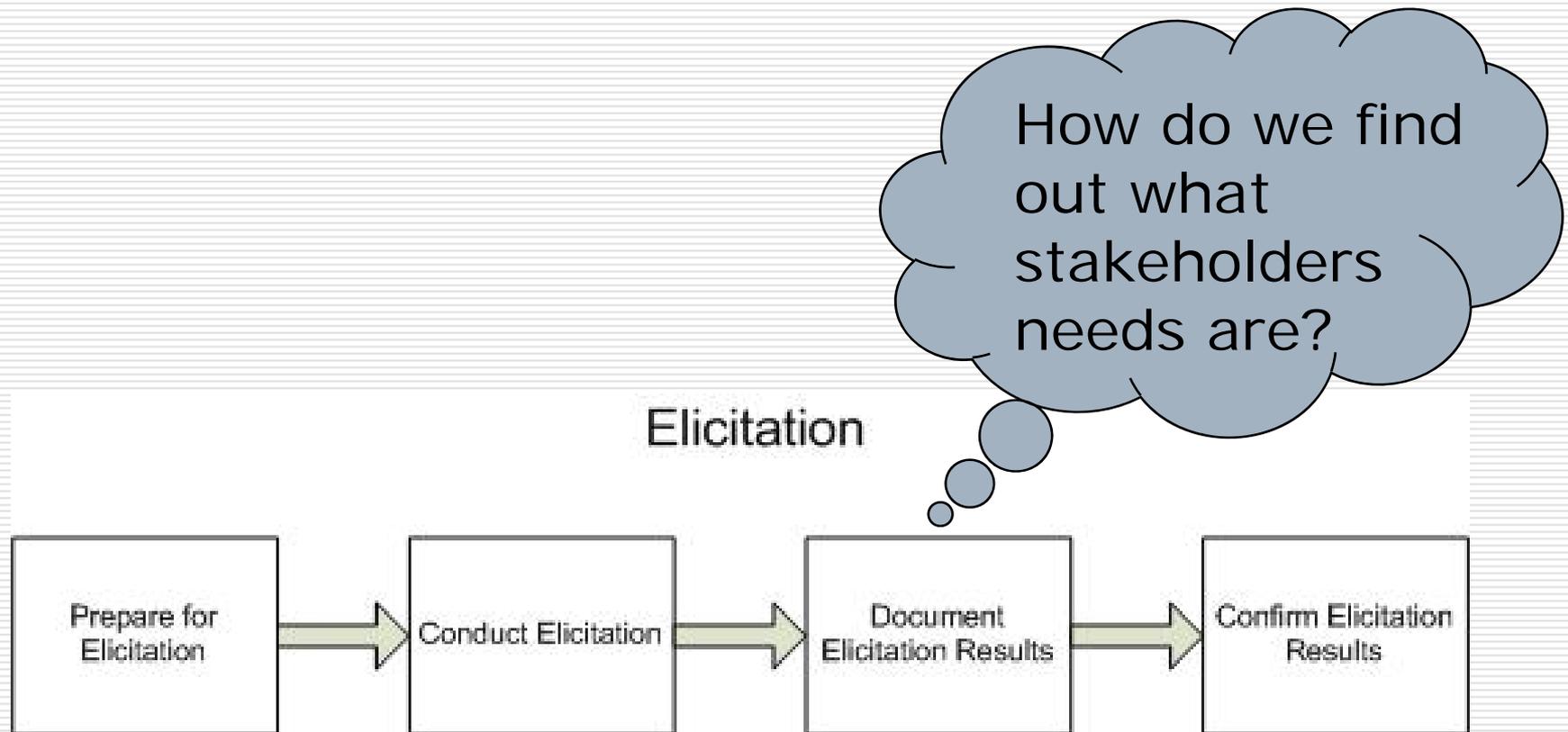
- Identify the Business Need**
- Determine a Solutions Approach**
- Define Solution Scope
- Develop the Business Case



Module 3 - Class Exercise 11:

- As a team, discuss possible solutions for the objectives of the DJ's Time for Wine project.
- Link the project objectives to the possible solutions identified.

Elicitation



Elicitation

- Prepare for Elicitation
- Conduct Elicitation**
- Document Elicitation Results**
- Confirm Elicitation Results



Definition

- ***Functional Requirement.*** . Describes both the systems behavior in detail and the information the system will manager.
- ***Non-Functional Requirement.*** Required system capabilities that do not describe functionality. Examples include, number of end users, response time, etc.
 - *The Business Analyst Body of Knowledge*

Business Requirements Errors

- Incorrect facts or assumptions
- Omissions
- Inconsistencies
- Ambiguities
- Misplacements

Quote

Requirements errors account for 70 to 85 percent of software project rework costs.

- Dean Leffingwell
- VP of Rational Software

Writing Business Requirements

- Identifies the business need
- Verifiable
- Attainable
- Clearly stated

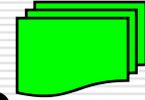
The Impatient, the Bad, and the Ugly

□ Key challenges

- Stating how to solve the problem
- Describing operations rather than what the system or process should provide
- Writing poorly

□ Confirm elicitation results

- Don't assume

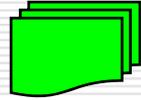


Module 3 - Class Exercise 13:

- Individually, rewrite the statements in the handout into clear requirements
- Compare each team member's statements and select the best requirement for each statement

Challenges in Analyzing Requirements

- ❑ Missing the key business problem to be solved
- ❑ Getting bogged down in the detail, while missing important participants and steps
- ❑ Not including key stakeholders in the ASIS evaluation will lead to missed opportunities and incorrect assumptions
- ❑ Implementing improvements that are detrimental to the overall process
- ❑ Automation for the sake of automation

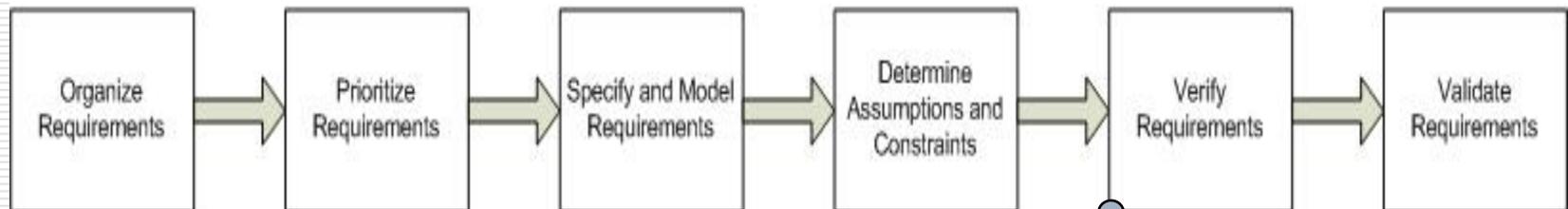


Module 4 - Class Exercise 14:

- For DJ's website project
 - Document at least 10 requirements
 - Link the requirements to the business objectives
 - Prioritize the requirements (H/M/L)
 - Document your rationale for the priority you select

Requirements Analysis

Requirements Analysis



How do we progressively elaborate the solution definition to identify a solution that meets the business needs?

Requirements Analysis

- Organize Requirements
- Prioritize Requirements
- Specify and Modify Requirements
- Determine Assumptions and Constraints
- Verify Requirements
- Validate Requirements**

Validating Meeting Requirements

- Iteratively monitor project deliverables
- Proactive identification of Requirement gaps



Quote

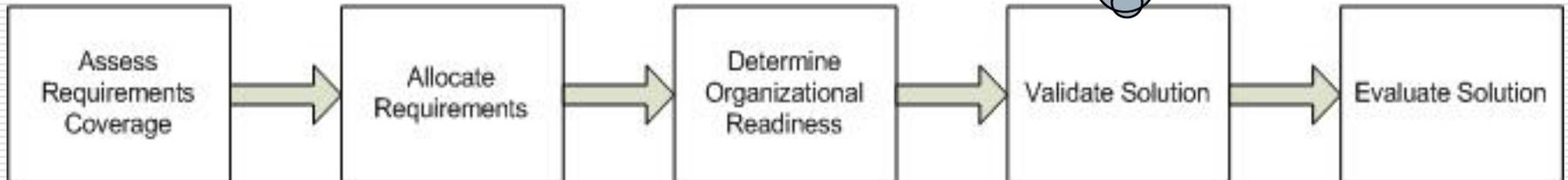
Building the wrong project less expensively doesn't help.

■ Nick Lavingia, Chevron Texaco

Solution Assessment and Validation

How do we assess the proposed solution to determine the best fit for the business needs?

Solution Assessment & Validation

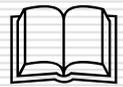




Definition

- **Assessment.** *The act of judging or assessing a person or situation or event.*

■ *Dictionary.com*



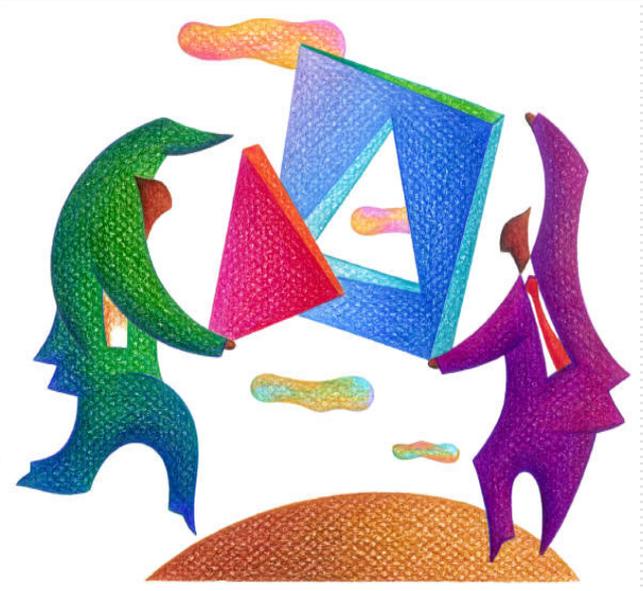
Definition

- ***Validation.*** A technique of evaluating a component or product during or at the end of a phase or project to ensure it complies with the specified requirements

■ *PMBOK Guide*

Solution Assessment and Validation

- Assess Requirements Coverage
- Allocate Requirements
- Determine Organizational Readiness
- **Validate Solution**
- **Evaluate Solution**



Quote

*Everything should be done as simply as possible
but no simpler*

■ Albert Einstein

Validating Meeting Goals & Objectives

- Assess the probability of achieving the goals and objectives of the project
- Litmus Test



Validating Solving the Business Problem



- Ultimate objective of the project
- Participate at the end of the project

Quote

I'm a great believer in luck and I find the harder I work the more I have of it.

■ Thomas Jefferson

Managing for Success

□ The Business Analyst in Motion

- Hear the needs of the customer
- Present alternatives
- Continuously assess the alternative selected for attainment of project objectives



Quote

I don't look to jump over 7-foot bars. I look around for one-foot bars that I can step over.

■ Warren Buffet

Tips and Pointers for Success



- Subject Matter Expertise
- Project Quality
- Testing

Definition

- ***Quality Assurance.*** *Applying the planned, systematic quality activities to ensure that the project employs all processes needed to meet requirements.*

■ *PMBOK Guide*



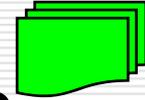
Definition

- ***Testing.*** *A particular process or method for trying or assessing.*

■ *Dictionary.com*

The Business Analyst & Testing

- Test Plans
- Purpose of Testing
 - Technical specification
 - Business requirements
 - Usability
 - User/customer acceptance



Module 6 - Class Exercise 23:

- For the requirement on the handout, create several tests to validate successful delivery of the requirement

Assessing Customer Satisfaction

- Summarize the results of all the testing that has occurred
- Communicate any variances that may still exist
- Demonstrate that the project's product does solve the business problem



Definition

- ***Satisfaction.*** Confident acceptance of something as satisfactory dependable, true, etc.

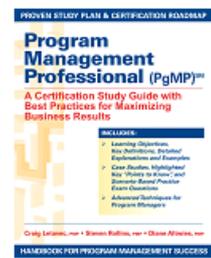
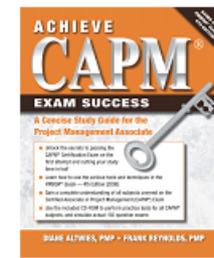
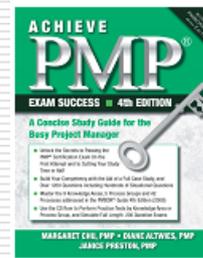
■ *Dictionary.com*

Debrief:

Lessons Learned for this Class

- What worked?
- What did you like?
- What should we keep?
- What can we do to help you?
- What didn't?
- What didn't you like?
- What should we ditch?
- What can we improve?

Thank You!



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The End

☐ Wahoo!

