Techniques

Chapter Study Group
Learning Materials
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## Study Session Schedule

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Chapters</th>
<th>Topics</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Jan 25</td>
<td>1 &amp; 2</td>
<td>Introduction and BA Key Concepts</td>
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<td>2</td>
<td>Feb 15</td>
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<td>Business Analysis Planning and Monitoring</td>
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<td>Apr 12</td>
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<td>Requirements Life Cycle Management</td>
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<td>May 17</td>
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<td>Jun 14</td>
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<td>Requirements Analysis and Design Definition</td>
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<td>Jul 12</td>
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<td>Solution Evaluation</td>
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<td>Sep 13</td>
<td>9</td>
<td>Underlying Competencies &amp; Perspectives</td>
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<td>9</td>
<td>Oct 18</td>
<td>10</td>
<td>Techniques</td>
</tr>
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<td>10</td>
<td>Nov 1</td>
<td>11</td>
<td>Jeopardy Game and Mock Exam</td>
</tr>
</tbody>
</table>
AGENDA

• (6:00 – 6:10) Overview (Holly)

• (6:10 – 7:25) 6 techniques (10-12 minutes each)
  - 10.5 Brainstorming (Holly)
  - 10.13 Data Flow Diagrams (Tameen)
  - 10.16 Decision Analysis (Carolina)
  - 10.18 Document Analysis (Pindy)
  - 10.20 Financial Analysis (Ron)
  - 10.25 Interviews (Ivy)

• (7:25 – 7:35) Break (10 minutes)
AGENDA (CON’T)

• (7:35 – 8:45) 6 techniques (10-12 minutes each)
  • 10.29 Mind Mapping (Sophie)
  • 10.32 Organization Modeling (Cecilia)
  • 10.40 Root Cause Analysis (Holly)
  • 10.50 Workshops (Paula)
  • 10.26 Item Tracking (Holly)
  • 10.27 Lessons Learned (Pindy)
  • 10.35 Process Modeling (Holly)
  • 10.38 Risk Analysis and Management (Cecilia)
• Extra techniques (if time permitting)
  • 10.28 Metrics and Key Performance Indicators (KPIs) (Tameen)
• (8:45 – 9:00) Group practice (15 minutes)
INTRODUCTION

• Chapter 10 of BABOK v3
• Technique descriptions include:
  • Purpose
  • Description
  • Elements
  • Usage Considerations
• Cover the most common and widespread techniques practiced within the business analysis community.
• As the practice of business analysis evolves, techniques will be added, changed, or removed from future iterations of the BABOK® Guide.
• In a number of cases, a set of conceptually similar approaches have been grouped into a single technique.
10.5 Brainstorming
(Alan)
10.5 BRAINSTORMING

Purpose
- Generate creative ideas by exploring many possible solutions.
- Uses the create power of a group to generate many ideas quickly.

Description
- Promotes creative thinking by producing a diverse set of options
- Works best by focusing on one issue
- Asks a group to generate many ideas quickly to resolve the issue
- can be use in identifying root causes of business problems, generating possible solutions or creating product concepts
10.5 BRAINSTORMING

- **Description**
  - This technique is best applied in a group as it draws on the experience and creativity of all members of the group.

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**Purpose and Description**

1. **Preparation**
   - Define Area of Interest
   - Determine Time Limit
   - Identify Participants
   - Establish Evaluation Criteria

2. **Session**
   - Share Ideas
   - Record Ideas
   - Build on each others ideas
   - Elicit as many ideas as possible

3. **Wrap-up**
   - Discuss and Evaluate
   - Create List
   - Rate Ideas
   - Distribute Final List
10.5 BRAINSTORMING

1. Define the area of focus, set expectation, and establish evaluation criteria

2. Conduct the brainstorming session and encourage others to build on suggested ideas without critique

3. Evaluate and condense the list of ideas
10.5 BRAINSTORMING

Usage Considerations

- Excel in encouraging creative thinking to generate many ideas in small amount of time
- Limited by participants' willingness to engage or criticism of ideas during session
- Facilitator need to guide the group though the technique to focus on the issue
- Ideas generated need additional analysis
10.5 BRAINSTORMING

Example

• Service desk team tries to figure out why their backlog of tickets is steadily growing. Through a brainstorming exercise, they may discover that issue may be caused by delay in resolving existing tickets, not having enough staff to handle the incoming requests, or staff not having enough training.
10.13 Data Flow Diagrams (Tameen)
10.16 Decision Analysis (Holly for Carolina)
10.16 DECISION ANALYSIS

• **Purpose**
  • Used to explore possible consequences of different decisions.
  • Helps to determine the value of alternate outcomes under conditions of uncertainty or in highly complex situations.

• **Description**
  • A decision is the act of making a choice among multiple viable alternatives with different values of their outcomes.
  • The evaluation of an outcome may take a form of financial value, scoring, or a relative ranking.
  • There are a number of decision analysis tools available to assist in Decision Analysis.
  • The appropriate approach depends on the type of decision, level of uncertainty, risk, quality of information, and evaluation criteria.
10.16 DECISION ANALYSIS

- Decision analysis requires an understanding of:
  - The values, goals, and objectives related to the decision problem
  - The nature of the decision that must be made
  - The areas of uncertainty that affect the decision
  - The consequences of each potential decision

- Decision analysis activities include:
  - Define problem statement
  - Define alternatives
  - Evaluate alternatives
  - Choose the alternative to implement
  - Implement the chosen alternative
10.16 DECISION ANALYSIS

• Components of Decision Analysis
  • Description of the decision to be made or a Problem Statement.
  • Decision Maker: the person or people responsible for making the final decision.
  • Alternative: a possible proposition or course of action.
  • Decision criteria used to evaluate the alternatives.
10.16 DECISION ANALYSIS

Examples of decision analysis tools and techniques:
- Pro versus con considerations
- Force field analysis
- Decision tables
- Decision trees
- Comparison analysis
- Analytical hierarchy process (AHP)
- Totally-partially-not (TPN)
- Multi-criteria decision analysis (MCDA)
- Computer-based simulations and algorithms
# 10.16 Decision Analysis

<table>
<thead>
<tr>
<th>Pro vs Con Considerations</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List</strong></td>
<td><strong>Value</strong></td>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Easy Setup</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Reports</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Online Invoicing</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Estimates</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Expenses</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

Value Scale: 1-10 (1: lowest, 10: highest)
10.16 DECISION ANALYSIS

Forces for Change

1. Reduce Payroll Time
2. Lower Costs
3. Management
4. Improve UX

Total: 12

Forces Against Change

1. Resistance
2. Timing
3. Project Features
4. Management

Total: 8
10.16 DECISION ANALYSIS

• Decision Matrices
  • Can be simple or weighted.
  • A **simple** decision matrix totals the number of evaluation criteria matched for each alternative.
  • A **weighted** decision matrix computes the values of alternatives by totaling up ranks of evaluation criteria multiplied by factors of their importance.
### 10.16 DECISION ANALYSIS

- **Decision Matrices**
  - Simple decision matrix

#### Decision Matrices

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion 1</td>
<td>Meets criterion</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Criterion 2</td>
<td>Meets criterion</td>
<td>Meets criterion</td>
<td>Meets criterion</td>
</tr>
<tr>
<td>Criterion 3</td>
<td>n/a</td>
<td>Meets criterion</td>
<td>Meets criterion</td>
</tr>
<tr>
<td>Criterion 4</td>
<td>Meets criterion</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Score**

- Alternative 1: 3
- Alternative 2: 2
- Alternative 3: 2
### Decision Matrices
- **Weighted decision matrix**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Weight</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Value</td>
<td>Rank</td>
<td>Value</td>
</tr>
<tr>
<td>Criterion 1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Criterion 2</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Criterion 3</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Criterion 4</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Score**
- Alternative 1: 28
- Alternative 2: 27
- Alternative 3: 35
10.16 DECISION ANALYSIS

- **Decision Trees**
  - Are used for assessing the preferred outcome where multiple sources of uncertainty exist.
  - Allow for assessment of responses to uncertainty to be factored across multiple strategies.
  - May include decision nodes, chance nodes, and terminator or end nodes.
  - Are also used in 10.17 Decision Modelling.
10.16 DECISION ANALYSIS

Analytical Hierarchy Process (AHP)

Time Tracking System 1.00

Cost 0.55
User Friendly 0.10
Integration 0.25
Mobile App 0.10

Solution 1 0.75
Solution 2 0.85
Solution 3 0.50
## 10.16 DECISION ANALYSIS

<table>
<thead>
<tr>
<th>Proposed Change</th>
<th>Totally</th>
<th>Partially</th>
<th>Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Tracking Integration with Payroll</td>
<td>Finance is the owner of payroll, Operations the owner of time entry process.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual to Automatic Tracking</td>
<td>Operations is the owner of the time entry process.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10.16 DECISION ANALYSIS

- Trade-offs
  - Are relevant when a decision problem involves multiple, possibly conflicting, objectives.
  - For more than one objective it is not sufficient to simply find the maximum value for single variable.
  - Methods for handling trade-offs include elimination of dominated alternatives and ranking objectives on a similar scale.
10.16 DECISION ANALYSIS

- **Strengths**
  - Provides a prescriptive approach for determining alternate options.
  - Helps to eliminate subjective biases in making decisions.
  - Helps to avoid false assumptions.
  - Encourages constructing appropriate metrics for comparing both the financial and non-financial outcome evaluation criteria.

- **Limitations**
  - Due to the effort required and the lack of necessary information, may not suit decisions that must be made immediately.
  - The results may be perceived as more certain than they are.
  - Analysis paralysis can occur.
  - May require specialized knowledge, such as math knowledge in probability and strong skills with decision analysis tools.
10.18 Document Analysis (Pindy)
10.20 Financial Analysis (Ron)
10.25 Interviews
(Ivy)
10.26 Item Tracking (Alan)
10.26 ITEM TRACKING

• **Purpose**
  • Used to capture issues and assign responsibilities in order to resolve the issue in a timely fashion

• **Description**
  • An organized approach to address issues, enhancements, defects, or other concerns
10.26 ITEM TRACKING

1. An item record may include
   - A unique identifier
   - A summary or description of the issue or defect
   - A category or group of similar issues
   - The date the issue was first identified
   - The person who reported the issue
   - The impact of the issue
   - The priority of the issue
   - The team member or owner who is assigned to manage the issue until it is closed
   - The status of the issue
   - The date that the issue is resolved
   - The resolution of the resolved issue
10.26 ITEM TRACKING

2. **Item Management**
   - Track the item from the date it was identified (or open) to its closure

3. **Metrics: Track metadata regarding the item resolution process** Determines how well:
   - Items are being resolved
   - The initiative undertaken is progressing
   - The tracking process is going
10.26 ITEM TRACKING

**Strengths**
- Ensures concerns around stakeholder requirements are captured, tracked, and resolved.
- Allows ranking of items to determine importance level as compared to other items.

**Limitations**
- Stakeholders could become immersed in overly detailed data.
- The time and effort used to manage items may outweigh the benefits of recording items.
10.27 Lessons Learned (Pindy)
10.32 Organizational Modeling (Cecilia)
10.35 Process Modeling (Holly)
10.35 PROCESS MODELING

• Purpose
  • Process modeling is a standardized graphical model used to show how work is carried out and is a foundation for process analysis.

• Description
  • A process model can be constructed on multiple levels, each of which can be aligned to different stakeholder points of view.
  • At a high (enterprise or context) level, the model provides a general understanding of a process and its relationship to other processes.
  • At lower (operational) levels, it can define more granular activities and identify all outcomes, including exceptions and alternative paths.
  • At the lowest (system) level, the model can be used as a basis for simulation or execution.
10.35 PROCESS MODELING

• **Description**
  - The business analyst can use a process model to define the current state of a process (also known as an as-is model) or a potential future state (also known as a to-be model).
  - Process models generally include:
    - The participants in the process
    - The business event that triggers the process
    - The steps or activities of the process (both manual and automated)
    - The paths (flows) and decision points that logically link those activities
    - The results of the process
10.35 PROCESS MODELING

- **Types of Models and Notations**
  - Many different notations are used in process modeling. The most commonly used notations include the following:
    - Flowcharts and Value Stream Mapping (VSM): used in the business domain
    - Data Flow diagrams and Unified Modelling Language™ (UML®) diagrams: used in the information technology domain
    - Business Process Model and Notation (BPMN): used across both business and information technology domains; is increasingly adopted as an industry standard
    - Integrated DEFinition (IDEF) notation and Input, Guide, Output, Enabler (IGOE) diagrams: used for establishing scope
    - SIPOC and Value Stream Analysis: used for process modeling
10.35 PROCESS MODELING

- Types of Models and Notations
  - Process models typically contain some or all of the following key elements:
    - **Activity**: an individual step or piece of work that forms part of the business process
    - **Event**: a zero-time occurrence which initiates, interrupts, or terminates an activity or task within a process or the process itself
    - **Directional Flow**: a path that indicates the logical sequence of the workflow. In general, diagrams are drawn to show the passage of time in a consistent fashion
    - **Decision Point**: a point in the process where the flow of work splits into two or more flows (paths), which may be mutually exclusive alternatives or parallels. A decision can also be used to locate rules where separate flows merge together
    - **Link**: a connection to other process maps
    - **Role**: a type of person or group involved in the process. Its definitions typically match those in the organizational model
10.35 PROCESS MODELING

• Types of Models and Notations
  • Flowchart: Flowcharts are used commonly with non-technical audiences and are good for gaining both alignment with what the process is and context for a solution.
  • A flowchart can be simple, displaying just the sequence of activities, or it can be more comprehensive, using swimlanes.
  • A swimlane is a partitioned area (horizontal or vertical) that segregates those activities in the process that are carried out by a particular role.
10.35 PROCESS MODELING

Use a real example or practice.

Flowchart:

- Start
- Task 1
- Task 2A
- Task 2B
- Input/Output
- Decision (True: Stop, False: Task 3)
- Sub-Process

Swimlanes are an unofficial, but common, extension to the flowcharting standard.

The flow of work splits. Tasks are executed in parallel.

A sub-process embeds another process model.
10.35 PROCESS MODELING

- Types of Models and Notations
  - **Business Process Model and Notation (BPMN)** provides an industry-standard language for modeling business processes in a form that is accessible by both business users and technical developers.
  - BPMN is designed to cover many types of modeling, including both internal (private) processes and collaborative (public) processes. It can be the input to process automation technologies.
  - A key feature of BPMN is its ability to distinguish the activities of different participants in a process with pools and swimlanes.
  - Commonly, a process includes one pool for the customer and a second pool for the organization under study, although it is possible for a process to include any number of pools.

Elements

Techniques
10.35 PROCESS MODELING

- Types of Models and Notations
- Business Process Model and Notation
10.35 PROCESS MODELING

- **Types of Models and Notations**
  - The *Activity Diagram* is one of the use case realization diagrams defined in the Unified Modelling Language™ (UML®).
  - Originally designed to elaborate on a single use case, the activity diagram has been adopted for more general process modeling purposes, including business process modeling.
  - While similar in appearance to a flowchart, the activity diagram typically employs swimlanes to show responsibilities, synchronization bars to show parallel processing, and multiple exit decision points.
10.35 PROCESS MODELING

- Types of Models and Notations
  - Activity Diagram

![Activity Diagram]

- Elements
  - Partition for Role 1
    - Task 1
    - Task 2A
    - Task 2B
    - Task (I/O)
    - Decision
      - [False]
      - Task 3
    - Sub-Process
      - A sub-process embeds another process model.

- Partition for Role 2
  - The flow of work splits. Tasks are executed in parallel.
  - Flow merges.
**10.35 PROCESS MODELING**

- **Strengths**
  - Appeals to the basic human understanding of sequential activities.
  - Most stakeholders are comfortable with the concepts and basic elements of a process model.
  - The use of levels can accommodate the different perspectives of various stakeholder groups.
  - Effective at showing how to handle a large number of scenarios and parallel branches.
  - Can help identify any stakeholder groups that may have otherwise been overlooked.
  - Facilitates the identification of potential improvements by highlighting “pain points” in the process structure (i.e. process visualization).
10.35 PROCESS MODELING

- **Strengths**
  - Likely to have value in its own right. They provide documentation for compliance purposes and can be used by business stakeholders for training and coordination of activities.
  - Can be used as a baseline for continuous improvement.
  - Ensures labeling consistency across artifacts.
  - Provides transparency and clarity to process owners and participants on activity responsibilities, sequence and hand-overs.
10.35 PROCESS MODELING

• **Limitations**

  • To many people in IT, a formal process model tends to reflect an older and more document-heavy approach to software development. Therefore, project time is not allocated to developing a process model, especially of the current state or problem domain.

  • Can become extremely complex and unwieldy if not structured carefully. This is especially true if business rules and decisions are not managed separately from the process.

  • Complex processes can involve many activities and roles; this can make them almost impossible for a single individual to understand and ‘sign off’.
Limitations

- Problems in a process cannot always be identified by looking at a high-level model. A more detailed model with reference to metadata (such as path frequency, cost, and time factors) is usually required. It is often necessary to engage with stakeholders directly to find the operational problems they have encountered while working with a process.
- In a highly dynamic environment where things change quickly, process models can become obsolete.
- May prove difficult to maintain if the process model only serves as documentation, as stakeholders may alter the process to meet their needs without updating the model.
10.38 Risk Analysis and Management (Cecilia)
## 10.38 RISK ANALYSIS AND MANAGEMENT

### • Risk Identification

### • Example of risk register

**Example of risk register for pre-billing process**

<table>
<thead>
<tr>
<th>#</th>
<th>Risk Event or Condition</th>
<th>Consequence</th>
<th>Probability</th>
<th>Impact</th>
<th>Risk Level</th>
<th>Risk Modification Plan</th>
<th>Risk Owner</th>
<th>Residual Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If technician does not load all CDRs</td>
<td>Billing is not correct (underestimated)</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Execute report of calls per hour and switching centre</td>
<td>Patricia, Billing Analyst/SME</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customer complaints due to wrong free minutes deducted</td>
<td></td>
<td></td>
<td></td>
<td>If missing calls, call switching centre coordinator (expert technician)</td>
<td>Patricia, Billing Analyst/SME</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fine by the Bureau of Consumer Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Revenue loss if customer cancels phone line (Gov.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>If tickets or manual charges are duplicated or entered with wrong amount</td>
<td>Billing is not correct (overestimated) and taxes are overpaid</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>Execute report of tickets that contains ticket number, ticket name, low, average, and highest amount</td>
<td>Patricia, Billing Analyst/SME</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customer complaints due to duplicated charges</td>
<td></td>
<td></td>
<td></td>
<td>Delete suspicious ticket after verifying certain conditions</td>
<td>Cecilia, Billing Manager</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fine by the Bureau of Consumer Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>If customer tax rate is incompatible with customer category</td>
<td>Loss of revenue</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Execute report of Residential customers with tax rate equal to zero</td>
<td>Salvador, Billing Analyst/SME</td>
<td>Low</td>
</tr>
<tr>
<td>4</td>
<td>If call is 23 hours long</td>
<td>Loss of revenue due to fraud</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>Execute report of local and national calls with a duration greater than 23 hours</td>
<td>Patricia, Billing Analyst/SME &amp; Rebecca, Fraud Analyst</td>
<td>Low</td>
</tr>
</tbody>
</table>

*Telecommunication Company (2007 Revenue: US$212 million)*

Elaborated by Cecilia Vasquez  
Vancouver, Oct/10/2017
10.40 Root Cause Analysis (Holly)
10.40 ROOT CAUSE ANALYSIS

- **Purpose**
  - Root cause analysis is used to **identify** and **evaluate** the **underlying causes** of a problem.

- **Description**
  - Root cause analysis is a systematic examination of a problem or situation that focuses on the problem's origin as the proper point of correction rather than dealing only with its effects.
  - Root cause analysis looks at the main types of causes such as people (human error, lack of training), physical (equipment failure, poor facility), or organizational (faulty process design, poor structure).
10.40 ROOT CAUSE ANALYSIS

• **Description**
  
  Root cause analysis helps organize the information in a framework, which allows for deeper analysis if needed. Root cause analysis can be used for:
  
  • **Reactive Analysis**: identifying the root cause(s) of an occurring problem for corrective action
  
  • **Proactive Analysis**: identifying potential problem areas for preventive action.
  
  Root cause analysis uses four main activities:
  
  • **Problem Statement Definition**: describes the issue to be addressed.
  
  • **Data Collection**: gathers information about the nature, magnitude, location, and timing of the effect.
  
  • **Cause Identification**: investigates the patterns of effects to discover the specific actions that contribute to the problem.
  
  • **Action Identification**: defines the corrective action that will prevent or minimize recurrence.
10.40 ROOT CAUSE ANALYSIS

• A fishbone diagram (also known as an Ishikawa or cause-and-effect diagram) is used to identify and organize the possible causes of a problem.

• This tool helps to focus on the cause of the problem versus the solution and organizes ideas for further analysis.

• The diagram serves as a map that depicts possible cause-and-effect relationships.
10.40 ROOT CAUSE ANALYSIS

The Fishbone Diagram

Replace with a real example
The Five Whys

- The five whys is a question asking process to explore the nature and cause of a problem.
- The five whys approach repeatedly asks questions in an attempt to get to the root cause of the problem.
- This is one of the simplest facilitation tools to use when problems have a human interaction component.
- To use this technique:
  1. Write the problem on a flip chart or whiteboard.
  2. Ask "Why do you think this problem occurs?" and capture the idea below the problem.
  3. Ask "Why?" again and capture that idea below the first idea.
Continue with step 3 until you are convinced the actual root cause has been identified.
10.40 ROOT CAUSE ANALYSIS

- This may take more or less than five questions—the technique is called the five whys because it often takes that many to reach the root cause, not because the question must be asked five times.
- The five whys can be used alone or as part of the fishbone diagram technique.
- Once all ideas are captured in the diagram, use the five whys approach to drill down to the root causes.
10.40 ROOT CAUSE ANALYSIS

• **Strengths**
  - Helps to maintain an objective perspective when performing cause-and-effect analysis.
  - Enables stakeholders to specify an effective solution at the appropriate points for corrective action.

• **Limitations**
  - Works best when the business analyst has formal training to ensure the root causes, not just symptoms of the problem, are identified.
  - May be difficult with complex problems; the potential exists to lead to a false trail and/or dead end conclusion.
10.50 Workshops (Paula)
10.50 WORKSHOPS

- **Purpose**
  - Workshops bring **stakeholders** together in order to **collaborate** on achieving a **predefined goal**.

- **Description**
  - A workshop is a **focused event** attended by **key stakeholders** and **subject matter experts** (SMEs) for a **concentrated period of time**.
  - May be held for different purposes including planning, analysis, design, scoping, requirements elicitation, modelling, or any combination of these.
Workshops generally include:
- A representative group of stakeholders
- A defined goal: generate ideas for new features or products, reach consensus on a topic, or review requirements or designs.
- Interactive and collaborative work
- A defined work product
- A facilitator: experienced, neutral; may be a team member
- A scribe
- A business analyst may be the facilitator or the scribe in these workshops.
**Prepare for the Workshop**

- When preparing for a workshop, business analysts:
  - Define the purpose and desired outcomes,
  - Identify **key** stakeholders to participate,
  - Identify the facilitator and scribe,
  - Create the agenda,
  - Determine how the outputs will be captured,
  - Schedule the session and invite the participants,
  - Arrange room logistics and equipment,
  - Send the agenda and other materials in advance to prepare the attendees and increase productivity at the meeting, and
  - If appropriate, conduct pre-workshop interviews with participants.
10.50 WORKSHOPS

• Workshop Roles
  • Sponsor
    • Frequently not a participant in the workshop, but does have ultimate accountability for its outcome
  • Facilitator
    • Establishes a professional and objective tone for the workshop
    • Introduces the goals and agenda for the workshop
    • Enforces structure and ground rules
    • Keeps activities focused on the purpose and desired outcomes
    • Facilitates decision making and conflict resolution
    • Ensures that all participants have an opportunity to be heard
**10.50 WORKSHOPS**

- **Workshop Roles**
  - **Scribe**
    - Documents the decisions reached during event in the format determined prior to the workshop
    - Keeps track of any outstanding items or issues
  - **Timekeeper**
    - May be used to keep track of the time spent on each agenda item.
  - **Participants**
    - Includes key stakeholders and subject matter experts
    - Are responsible for
      - providing their input and views,
      - listening to other views, and
      - discussing the issues without bias.
10.50 WORKSHOPS

- **Conduct the Workshop**
  - Facilitators generally begin the workshop with a statement of its purpose and desired outcomes.
  - Establishing agreed-upon ground rules can be an effective method for establishing a productive environment for collaboration.
  - Throughout the workshop, the facilitator maintains focus by frequently validating the session’s activities with the workshop’s purpose and outcomes.
10.50 WORKSHOPS

• Post Workshop Wrap-Up
  • Facilitator
  • follows up on any open action items that were recorded at the workshop,
  • completes the documentation, and
  • distributes documentation to the workshop attendees and any stakeholders who need to be kept informed of the work done.
10.50 WORKSHOPS

**Strengths**
- Can be a means to achieve agreement in a relatively short period of time.
- Provides a means for stakeholders to communicate, collaborate, make decisions, gain trust, and build a mutual understanding.
- Costs are often lower than the cost of performing multiple interviews.
- Feedback on the issues or decisions can be provided immediately by the participants.

Usage Considerations
10.50 WORKSHOPS

• **Limitations**
  
  • Stakeholder availability may make it difficult to schedule the workshop.
  
  • The success of the workshop is highly dependent on the expertise of the facilitator and knowledge of the participants.
  
  • Workshops that involve too many participants can slow down the workshop process.
  
  • Conversely, collecting input from too few participants can lead to the overlooking of needs or issues that are important to some stakeholders, or to the arrival at decisions that don't represent the needs of the majority of the stakeholders.
CHAPTER 9 Underlying Competencies

Group Practice