

Techniques Mapped To Artifacts

The Business Analysis Body Of Knowledge version 3 (BABOK) is a comprehensive set of guidelines for conducting business analysis. It lays out these guidelines in a functionally structured manner, with knowledge areas containing tasks. Guidelines and tools, artifacts and stakeholders are described in terms of their relationship to these tasks.

I created an object-oriented model of the BABOK that focuses on the artifacts. It captures their relationships with other artifacts, guidelines and tools, stakeholders and techniques.

This article is one in a series of reports containing information from my model of the Business Analysis Body Of Knowledge version 3 (BABOK). It shows the mapping between artifacts and the BABOK techniques.

Artifacts

An artifact is identified as an input to or output from a BABOK task. Artifact descriptions can be found in the Inputs and Outputs sections of each task description. All artifacts referenced by the BABOK are shown in Figure 1.

An artifact is represented with the UML class icon.

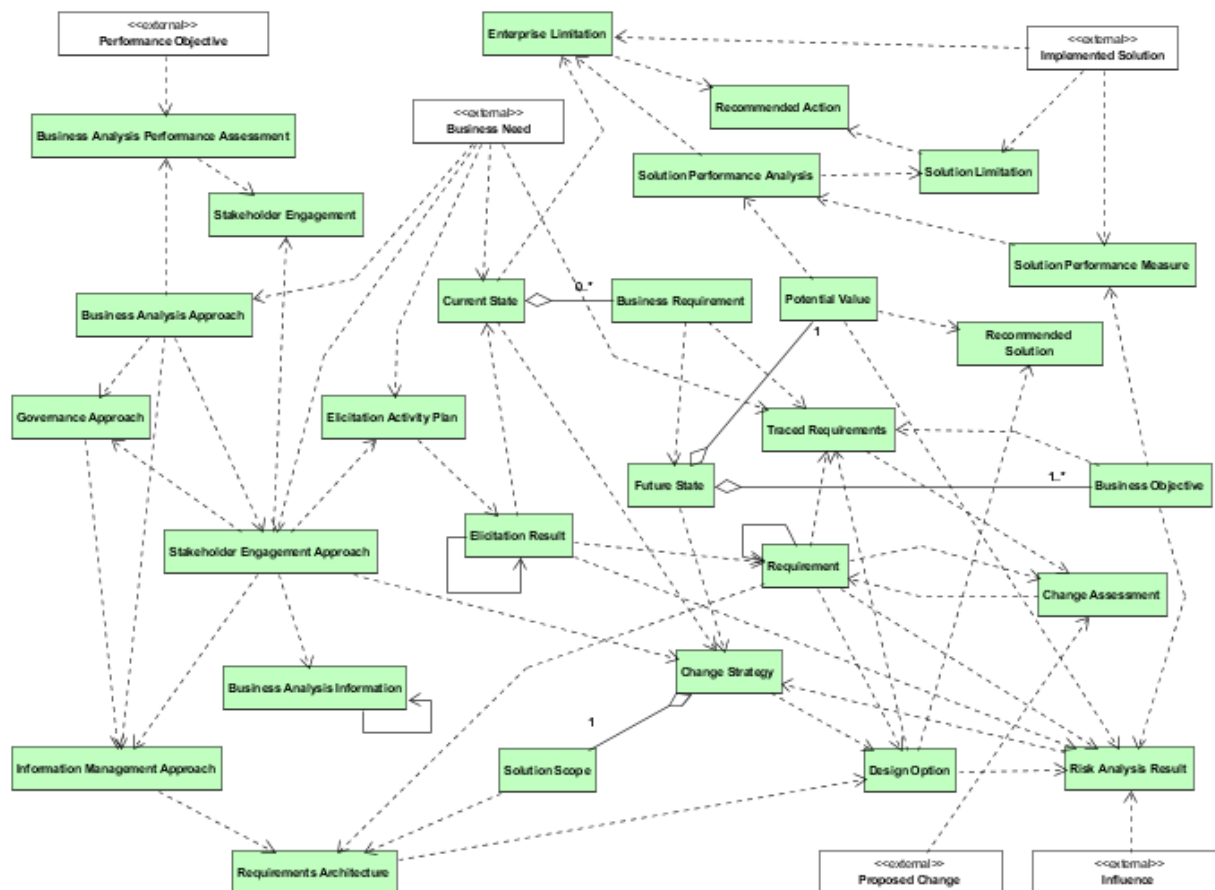


Figure 1: BABOK Artifacts

◆ See the Artifacts Mapped To Artifacts article for the meaning of the relationships between artifacts.

Artifacts are divided into 2 groups:

- Shaded White – These are inputs to the BABOK from external sources.
 - Shaded Green – These are artifacts produced by the business analysis discipline and used by business analysts or delivered to external stakeholders.
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- ♦ **The BABOK Design artifact is combined with Requirement. I.e. Requirements may be considered ‘Requirements and Designs’.**
 - ♦ **The Traced Requirements artifact is derived from the Trace Requirements task. This artifact is not shown in the BABOK; instead it is described by a relationship between requirements. This artifact captures the two requirements in the relationship, the type of traceability and the level of formality of the relationship.**
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Techniques apply to those artifacts produced by the business analyst. (I.e. those shaded green).

Techniques

The Techniques section of the BABOK provides a detailed description of each technique. Techniques are also documented wherever they are related to a task (in the task ‘Techniques’ section). Because a task always outputs 1 or more artifacts, the techniques for that task can be directly related to production of that task’s output artifacts.

Techniques are represented by a use case symbol. All techniques described by the BABOK are shown in Figure 2.



Figure 2: BABOK Techniques

Overview

The following paragraphs show how these techniques are used to produce BABOK artifacts. Each section contains a diagram taken from a model of the BABOK, showing the relationship between techniques and artifacts.

The technique is shown in the center of the diagram (and shaded green). The associated tasks are connected to the technique. The artifacts produced by that task that use the technique under discussion, are added to the diagram (and these are also shaded green).

I.e. The diagram may read as ‘this technique (use case shaded green) is used by these tasks, (use cases shaded blue) in the production of these artifacts (classes shaded green)’.

- ◆ Note that only the Purpose section of the actual technique is shown. Please refer to the BABOK for content in the sections for Description, Elements and Usage Considerations of the Technique.
- ◆ Note that the task name may not exactly match the name given in the BABOK.

1) Acceptance and Evaluation Criteria

Acceptance criteria are used to define the requirements, outcomes, or conditions that must be met in order for a solution to be considered acceptable to key stakeholders. Evaluation criteria are the measures used to assess a set of requirements in order to choose between multiple solutions.

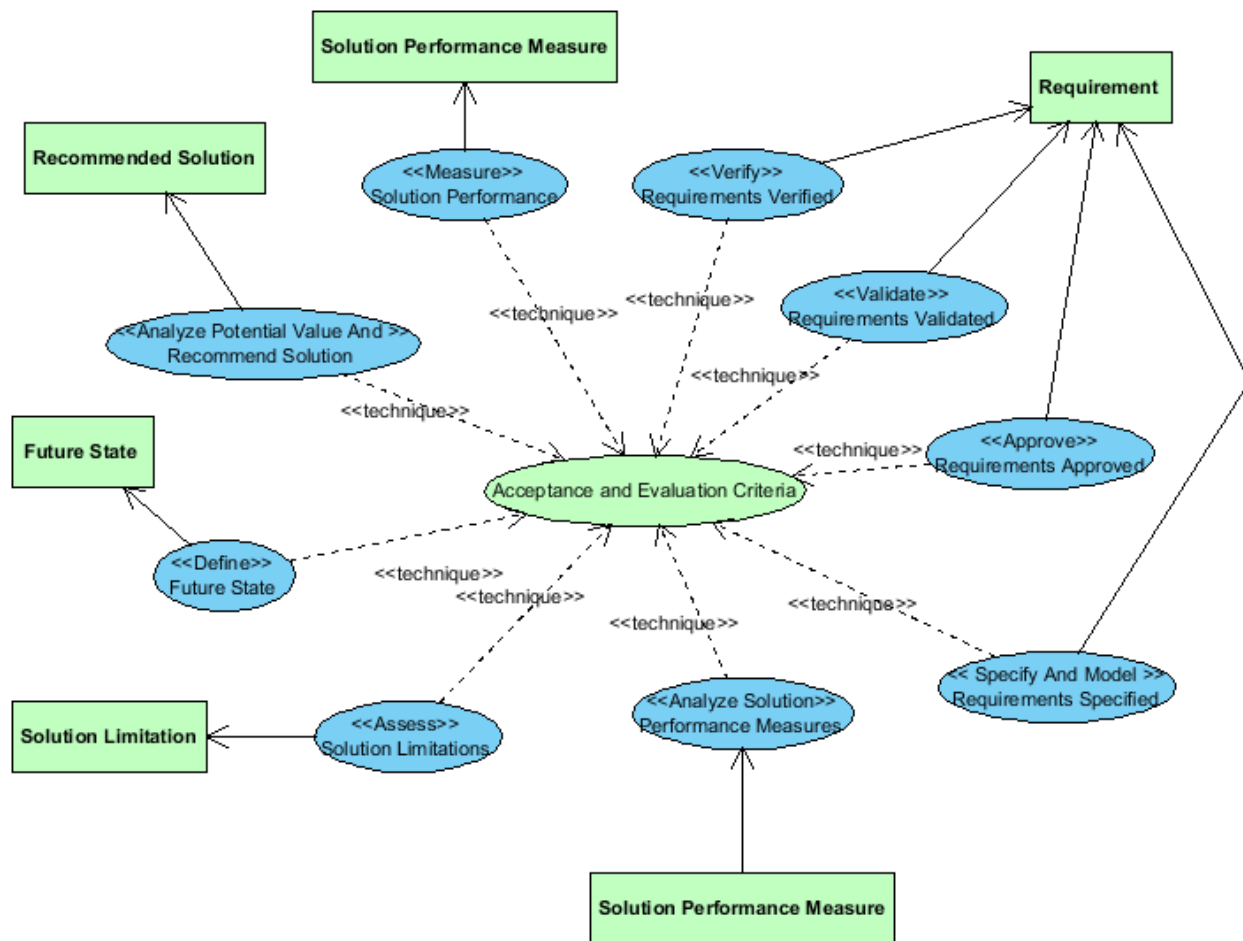


Figure 3: Acceptance And Evaluation Criteria Technique

Figure 3 shows that the Acceptance And Evaluation Criteria Technique maybe used in the production of Solution Performance Measures, Requirement, Solution Performance Analysis, Solution Limitations, the Future State and Recommended Solutions.

2) Backlog Management

Backlog Management is used to record, track, and prioritize remaining work items.

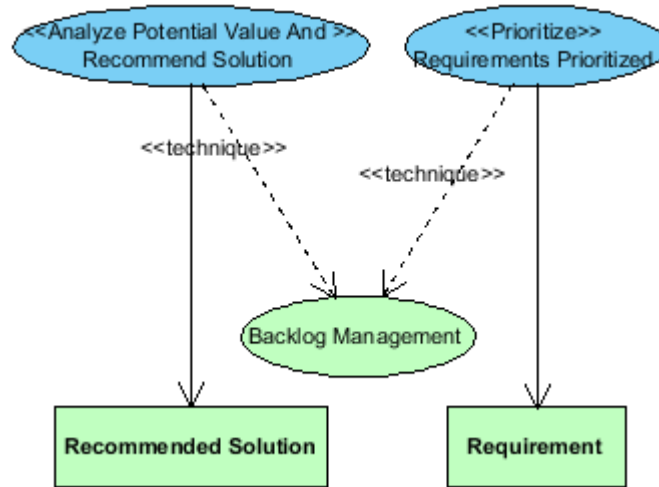


Figure 4: Backlog Management Technique

Figure 4 shows that the Backlog Management Technique maybe used in the production of Recommended Solutions and Requirements.

3) Balanced Scorecard

The balanced scorecard is used to manage performance in any business model, organizational structure, or business process.

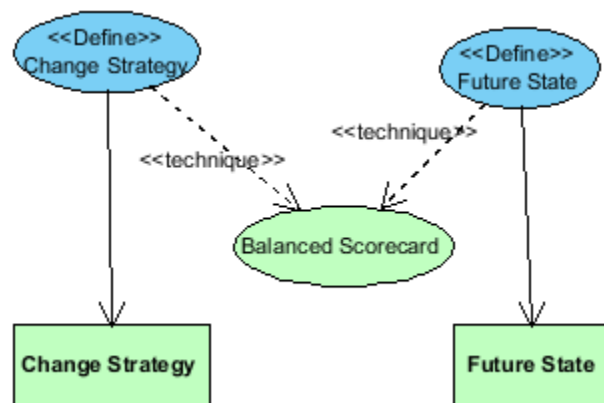


Figure 5: Balanced Scorecard Technique

Figure 5 shows that the Balanced Scorecard Technique maybe used in the production of a Change Strategy and the Future State artifacts.

4) Benchmarking and Market Analysis

Benchmarking and market analysis are conducted to improve organizational operations, increase customer satisfaction, and increase value to stakeholders.

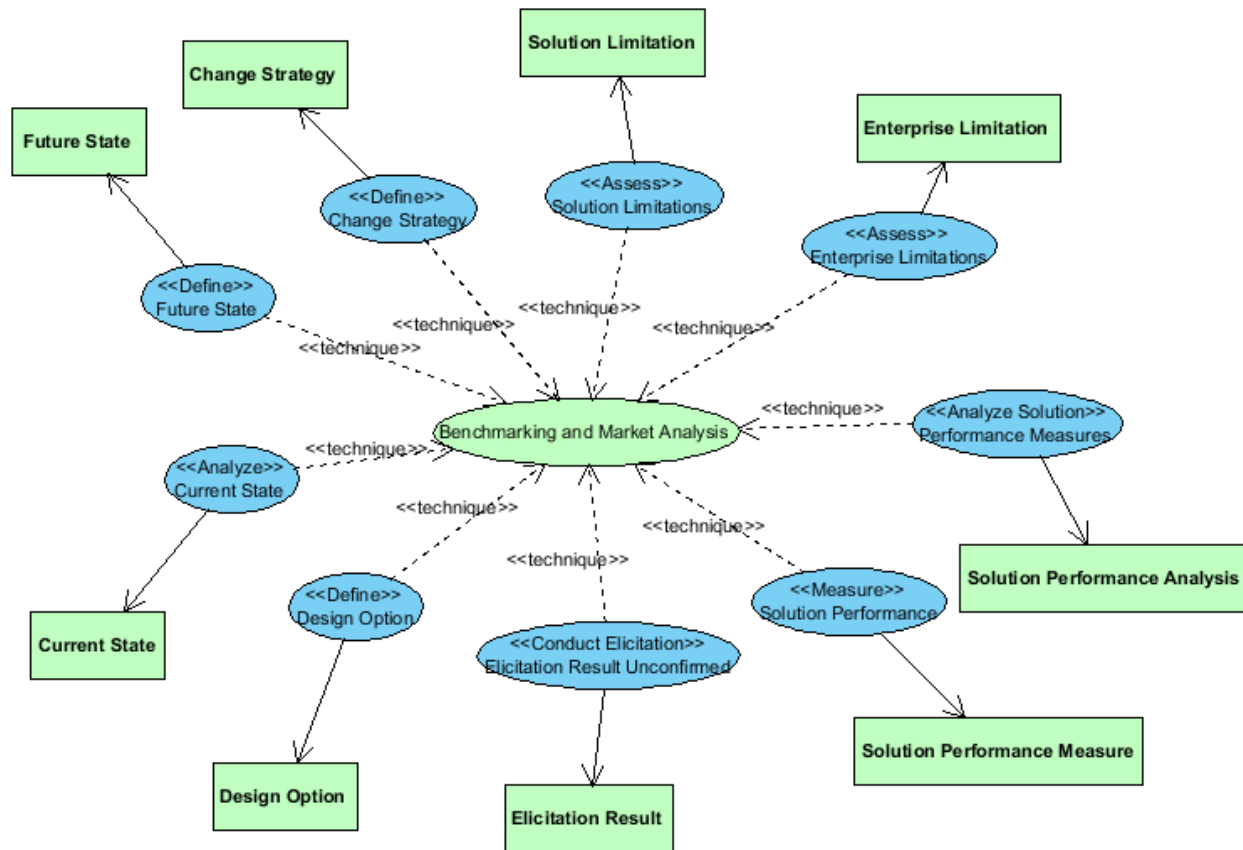


Figure 6: Benchmarking And Market Analysis

Figure 6 shows that the Benchmarking And Market Analysis technique maybe used in the production of Solution Limitations, Enterprise Limitations, Solution Performance Analysis, Solution Performance Measures, Elicitation Results, Design Options, the Current State, the Future State and Change Strategy artifacts.

5) Brainstorming

Brainstorming is an excellent way to foster creative thinking about a problem. The aim of brainstorming is to produce numerous new ideas, and to derive from them themes for further analysis.



Figure 7: Brainstorming Technique

Figure 7 shows that the Brainstorming technique may be considered during production of the Elicitation Activity Plan, Business Analysis Approach, Information Management Approach, Governance Approach, Business Analysis Performance Assessment, Stakeholder Engagement Approach, Enterprise Limitations, Change Strategy, Recommended Solutions, the Future State, Risk Analysis Results, Design Options and Elicitation Results.

6) Business Capability Analysis

Business capability analysis provides a framework for scoping and planning by generating a shared understanding of outcomes, identifying alignment with strategy, and providing a scope and prioritization filter.

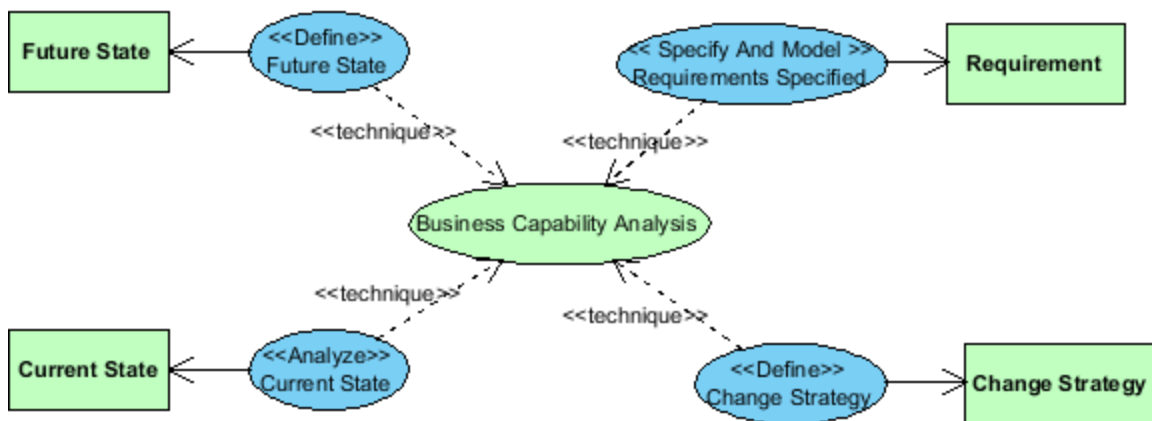


Figure 8: Business Capability Analysis Technique

Figure 8 shows that the Business Capability Analysis Technique maybe used in the production of Requirements, the Change Strategy, Current state and Future State artifacts.

7) Business Case

A business case provides a justification for a course of action based on the benefits to be realized by using the proposed solution, as compared to the cost, effort, and other considerations to acquire and live with that solution.

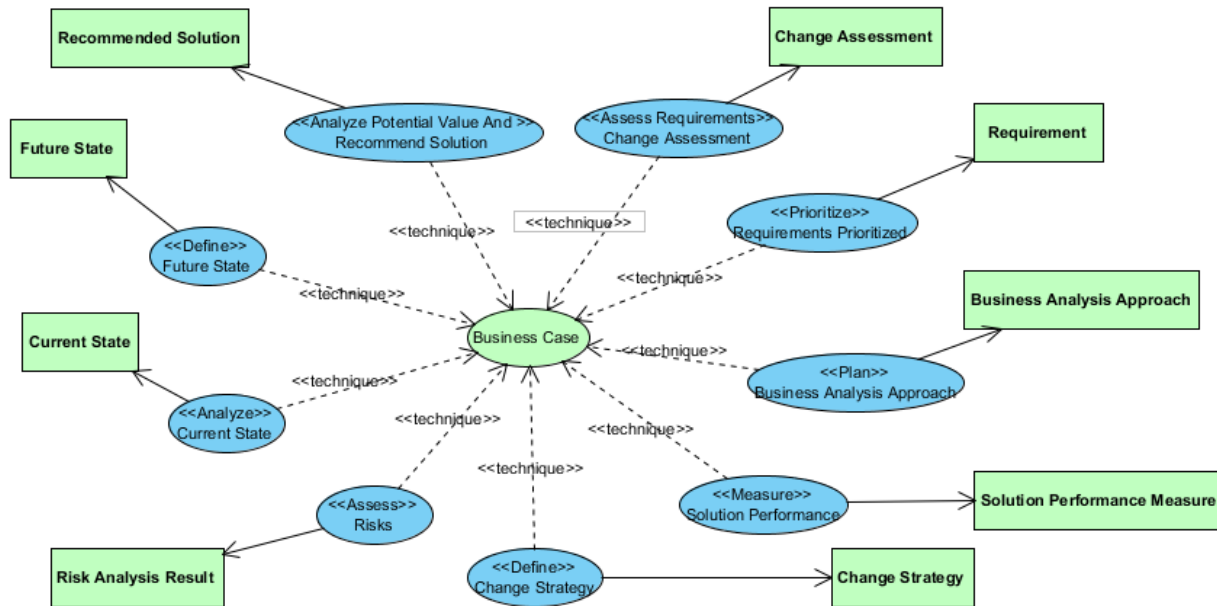


Figure 9: Business Case Technique

Figure 9 shows that the Business Case Technique maybe used in the production of Change Assessments, Requirements, the Business Analysis Approach, Solution Performance Measures, Change Strategy, Risk Analysis Results, the Current State, Future State and Recommended solution.

8) Business Model Canvas

A business model canvas describes how an enterprise creates, delivers, and captures value for and from its customers.

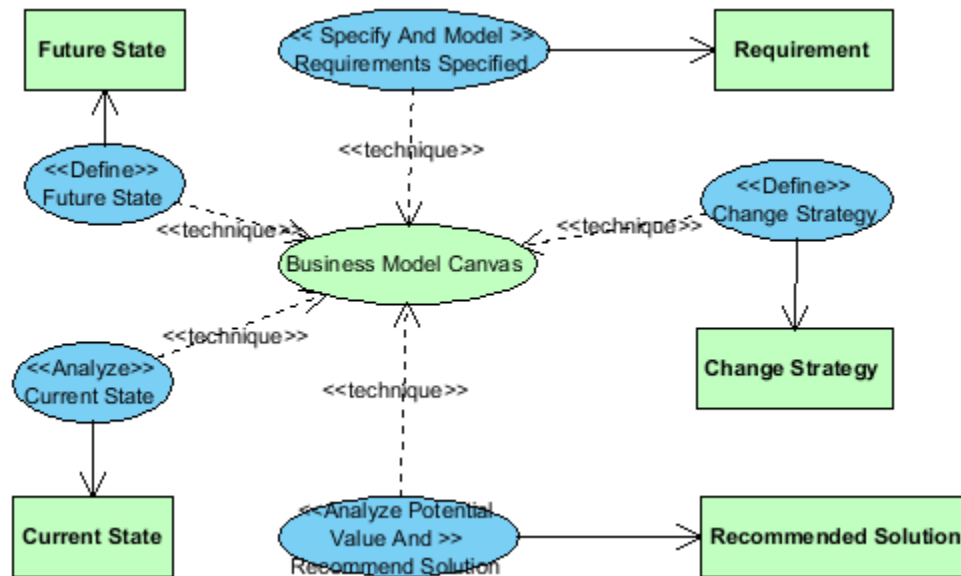


Figure 10: Business Model Canvas

Figure 10 shows that the Business Model Canvas technique maybe used in the creation of Requirements, the Change Strategy, Recommended Solution, Current State and Future State artifacts.

9) Business Rules Analysis

Business rules analysis is used to identify, express, validate, refine, and organize the rules that shape day-to-day business behaviour and guide operational business decision making.

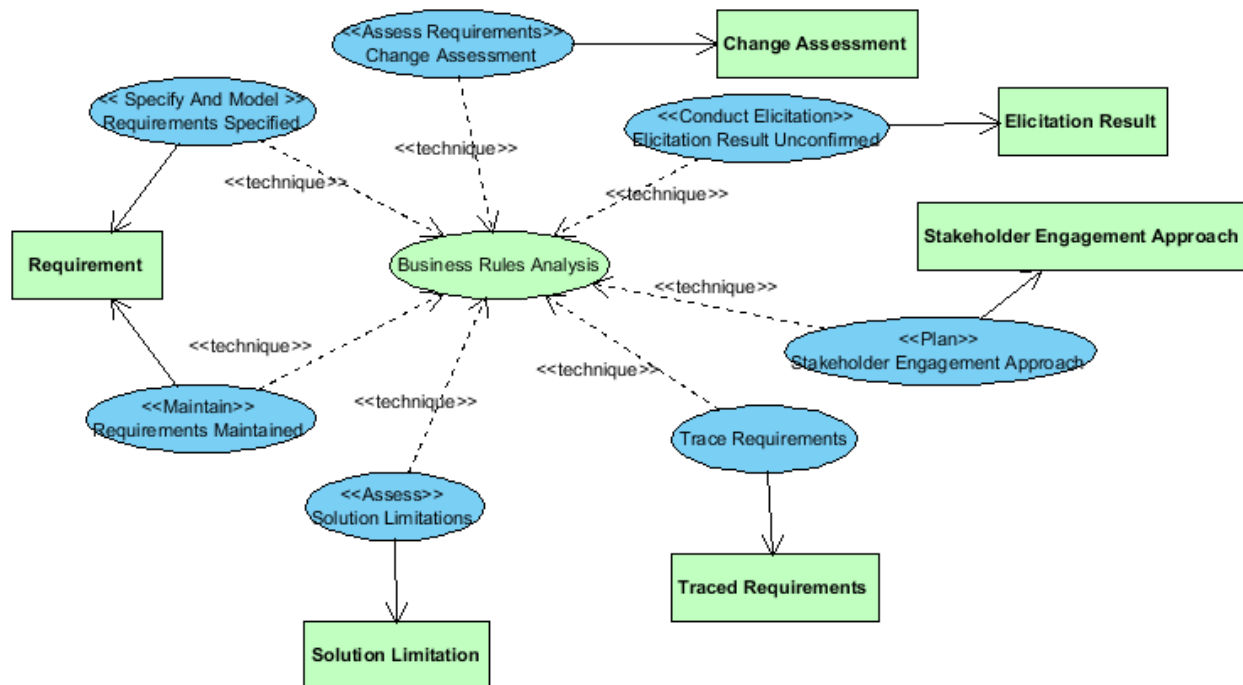


Figure 11: Business Rules Analysis Technique

Figure 11 shows that the Business Rules Analysis Technique may be used in the production of Change Assessments, Elicitation Results, the Stakeholder Engagement Approach, Traced Requirements, Solution Limitations and Requirements artifacts.

10) Collaborative Games

Collaborative games encourage participants in an elicitation activity to collaborate in building a joint understanding of a problem or a solution.

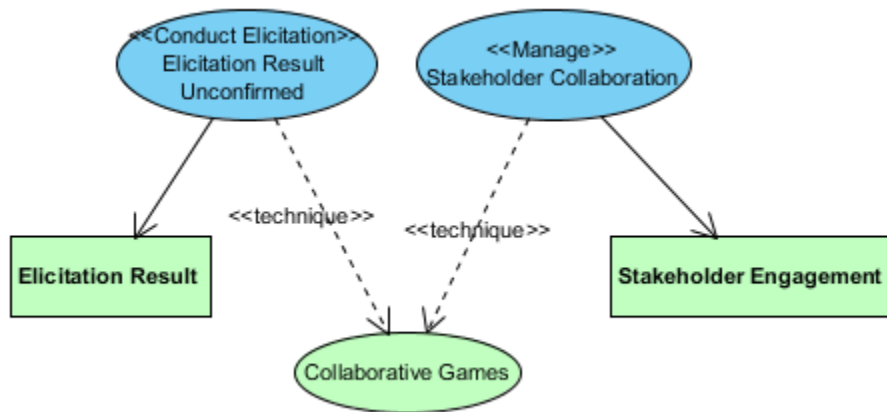


Figure 12: Collaborative Games Technique

Figure 12 shows that the Collaborative Games Technique may be used in the creation of Elicitation Results and the Stakeholder Engagement.

11) Concept Modelling

A concept model is used to organize the business vocabulary needed to consistently and thoroughly communicate the knowledge of a domain.

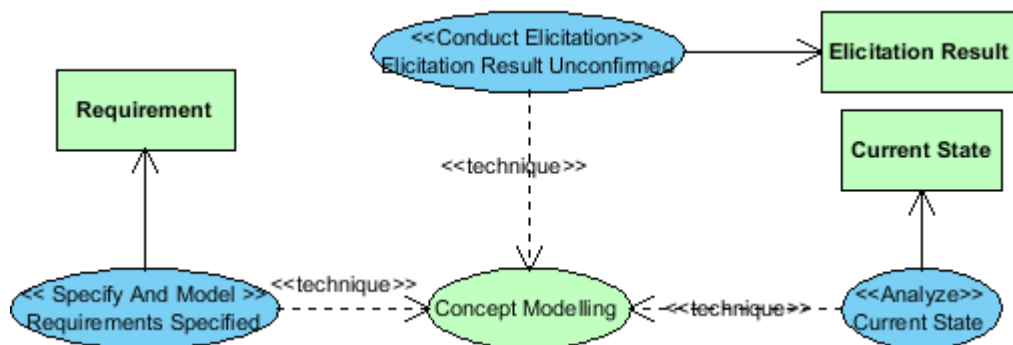


Figure 13: Concept Modelling Technique

Figure 13 shows that the Concept Modelling Technique may be used to produce Requirements and the Current state.

12) Data Dictionary

A data dictionary is used to standardize a definition of a data element and enable a common interpretation of data elements.

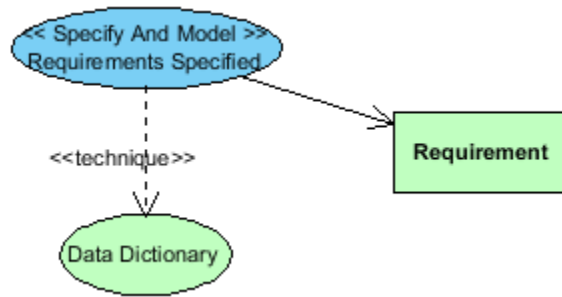


Figure 14: Data Dictionary Technique

Figure 14 shows that the Data Dictionary Technique maybe used in the specification of Requirements.

13) Data Flow Diagrams

Data flow diagrams show where data comes from, which activities process the data, and if the output results are stored or utilized by another activity or external entity.

◆ Data Flow Diagrams are a form of Functional Decomposition.

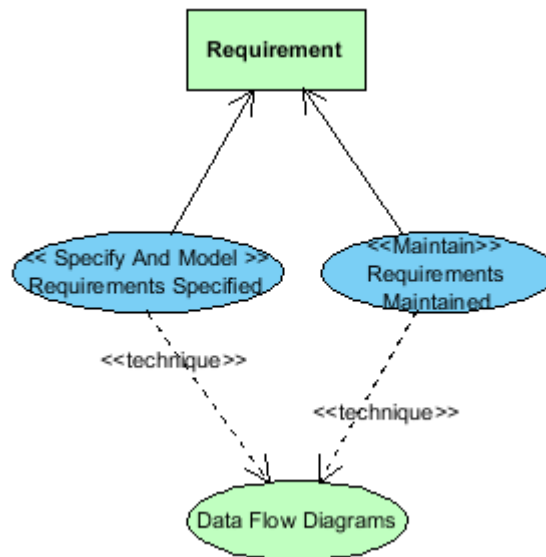


Figure 15: Data Flow Diagrams Technique

Figure 15 shows that the Data Flow Diagrams Technique maybe used in the specification of Requirements.

14) Data Mining

Data mining is used to improve decision making by finding useful patterns and insights from data.

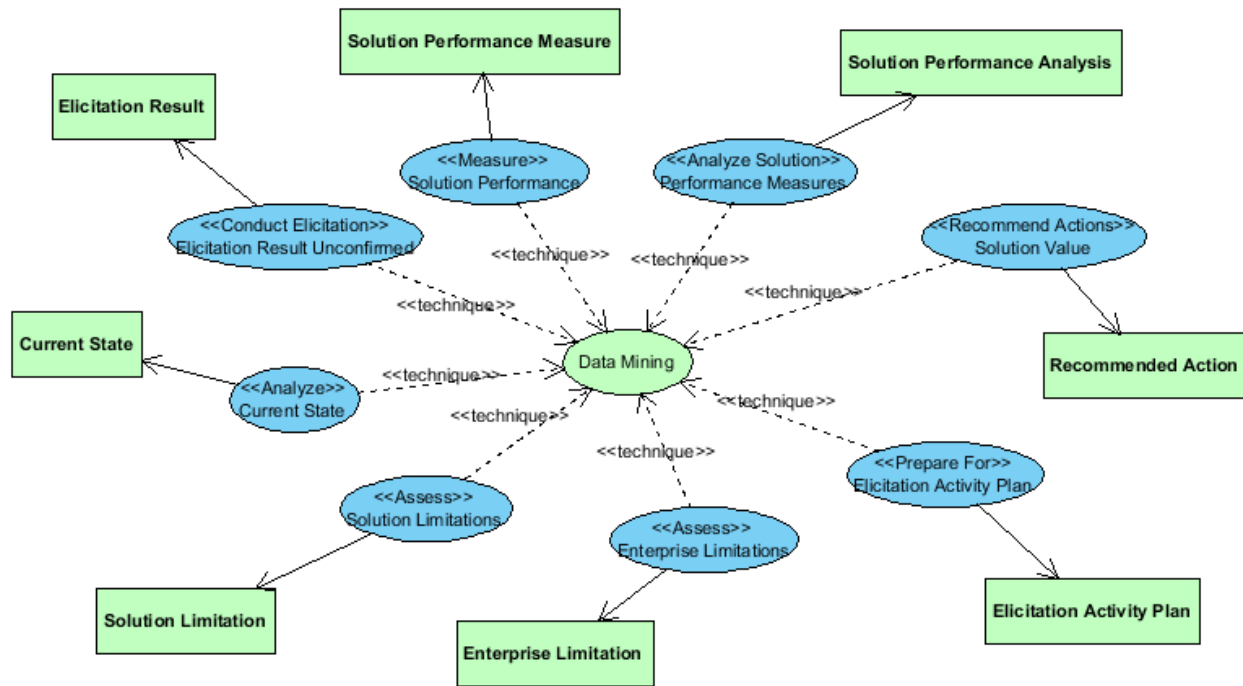


Figure 16: Data Mining Technique

Figure 16 shows that the Data Mining Technique maybe used in production of Solution Performance Measures, Solution Performance Analysis, Recommended Actions, the Elicitation Activity Plan, Enterprise Limitations, Solution Limitations, the Current State and Elicitation Results.

15) Data Modelling

A data model describes the entities, classes or data objects relevant to a domain, the attributes that are used to describe them, and the relationships among them to provide a common set of semantics for analysis and implementation.

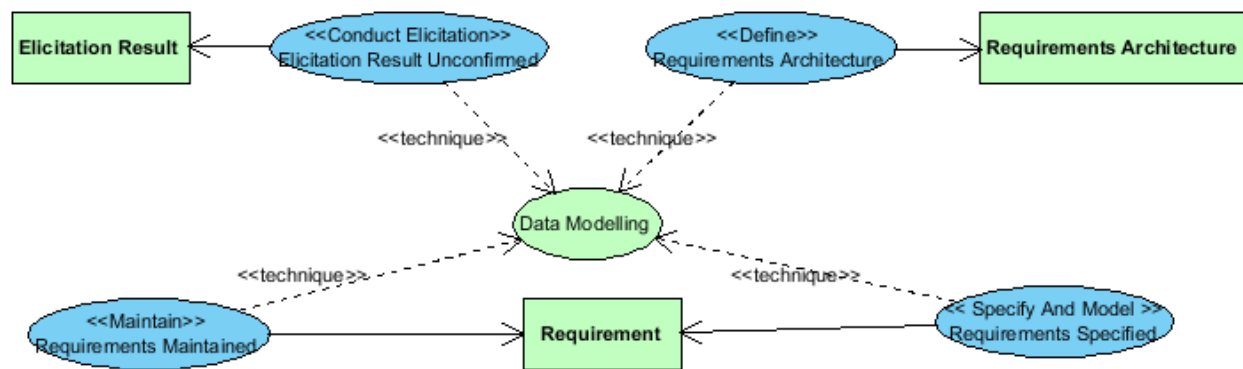


Figure 17: Data Modelling Technique

Figure 17 shows that the Data Modelling Technique may be used in the creation of the Requirements Architecture, Elicitation Result and Requirements.

16) Decision Analysis

Decision analysis formally assesses a problem and possible decisions in order to determine the value of alternate outcomes under conditions of uncertainty.

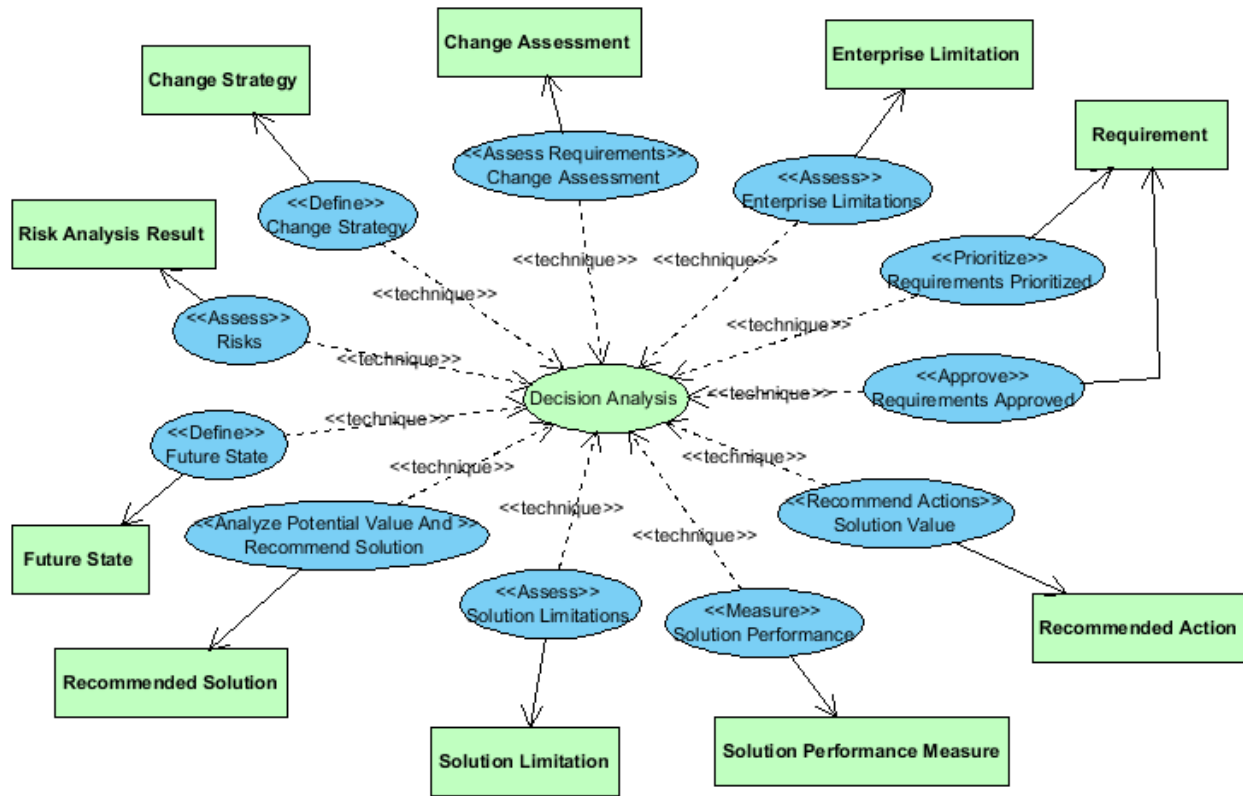


Figure 18: Decision Analysis Technique

Figure 18 shows that the Decision Analysis Technique maybe used in the creation of Enterprise Limitations, Requirements, Recommended Actions, Solution Performance Measures, Solution Limitations, Recommended Solutions, the Future State, Risk Analysis Results, the Change Strategy and Change Assessments.

17) Decision Modelling

Decision modelling shows how repeatable business decisions are made.

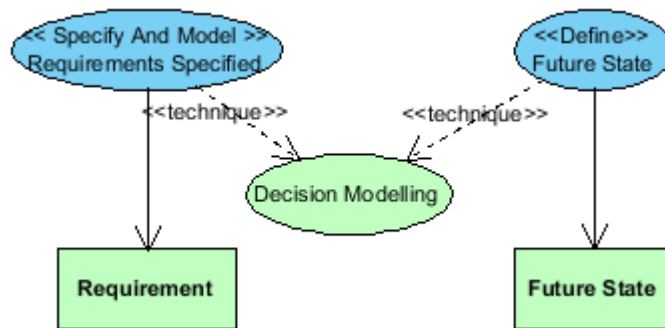


Figure 19: Decision Modelling Technique

Figure 19 shows that the Decision Modelling Technique maybe used in the specification of Requirements and the Future State.

18) Document Analysis

Document analysis is used to elicit business analysis information, including contextual understanding and requirements, by examining available materials that describe either the business environment or existing organizational assets.



Figure 20: Document Analysis Technique

Figure 20 shows that the Document Analysis Technique maybe used in the creation of the Elicitation Activity Plan, Stakeholder Engagement Approach, Enterprise Limitations, Governance Approach, Business Analysis Approach, Risk Analysis Results, Elicitation Results, Requirements, the Current State, Design Options and Change Assessments.

19) Estimation

Estimation is used by business analysts and other stakeholders to forecast the cost and effort involved in pursuing a course of action.

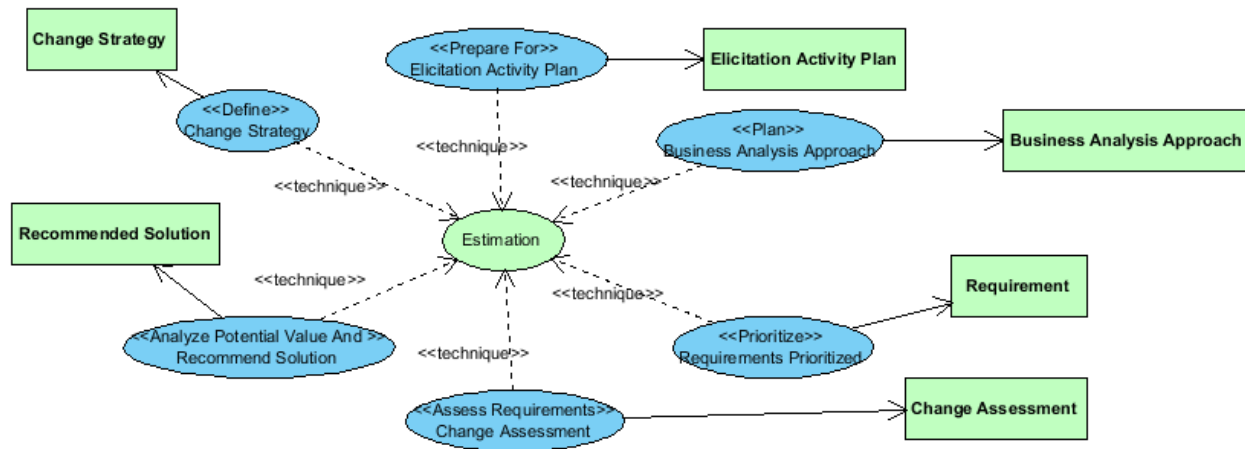


Figure 21: Estimation Technique

Figure 21 shows that the Estimation Technique maybe used in the creation of the Elicitation Activity Plan, Business Analysis Approach, Requirements, Change Assessments, Recommended Solution and Change Strategy.

20) Financial Analysis

Financial analysis is used to understand the financial aspects of an investment, a solution, or a solution approach.

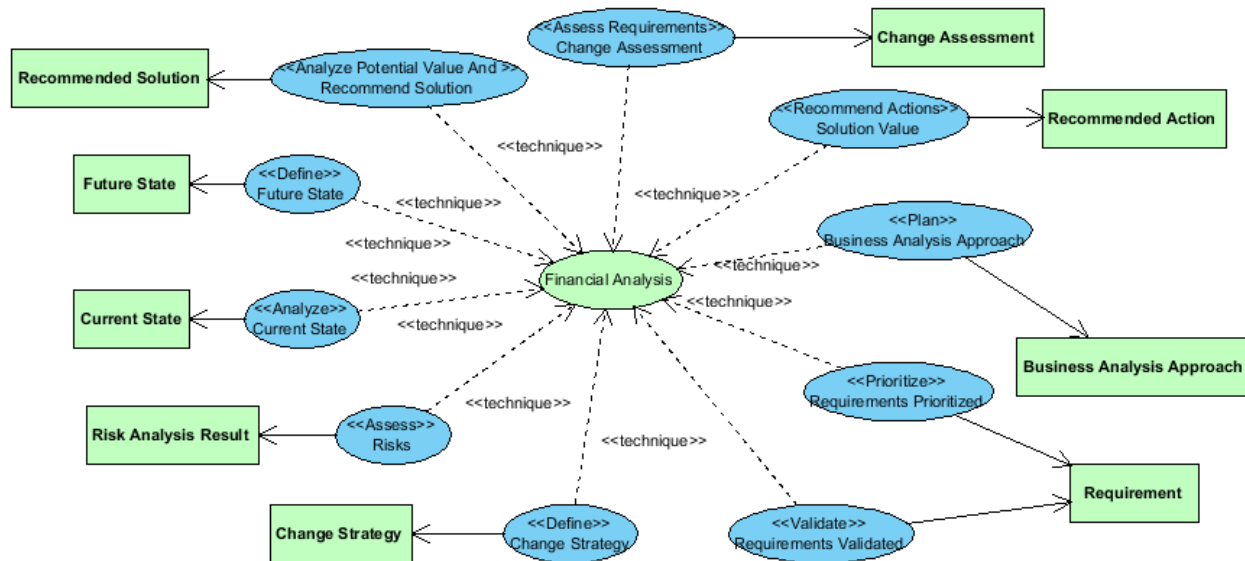


Figure 22: Financial Analysis Technique

Figure 22 shows that the Financial Analysis Technique maybe used in the creation of Change Assessments, Recommended Actions, the Business Analysis Approach, Requirements, the Change Strategy, Risk Analysis Results, the Current State, Future State and Recommended solution.

21) Focus Groups

A focus group is a means to elicit ideas and opinions about a specific product, service, or opportunity in an interactive group environment. The participants, guided by a moderator, share their impressions, preferences, and needs.

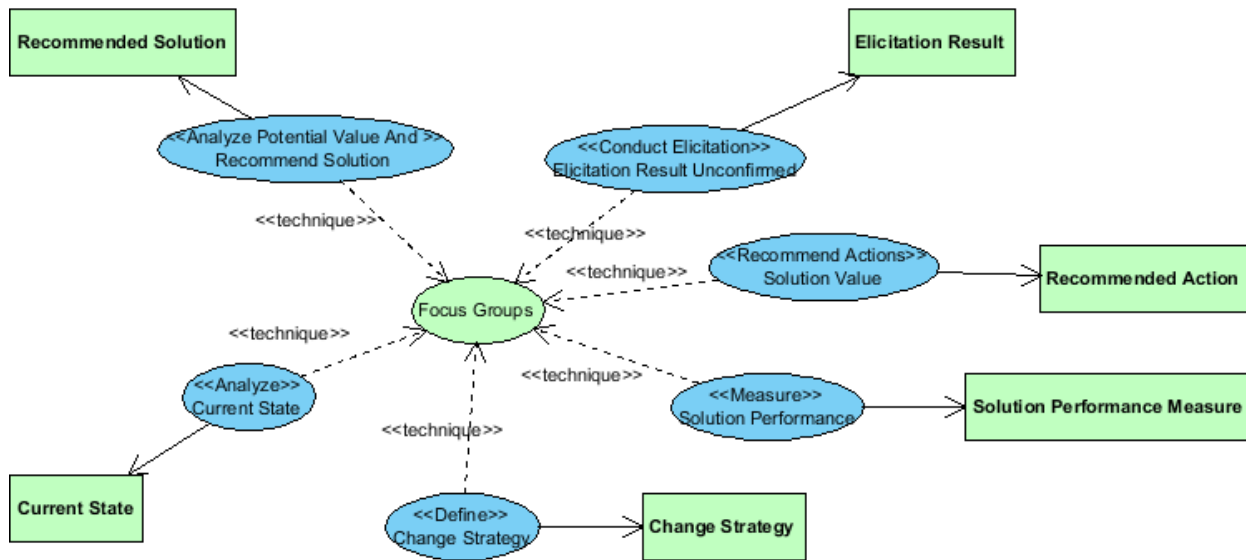


Figure 23: Focus Groups Technique

Figure 23 shows that the Focus Groups Technique maybe used in the creation of Elicitation Results, Recommended Actions, Solution Performance Measures, Change Strategy, Current State and the Recommended Solution.

22) Functional Decomposition

Functional decomposition helps manage complexity and reduce uncertainty by breaking down processes, systems, functional areas, or deliverables into their simpler constituent parts and allowing each part to be analyzed independently.

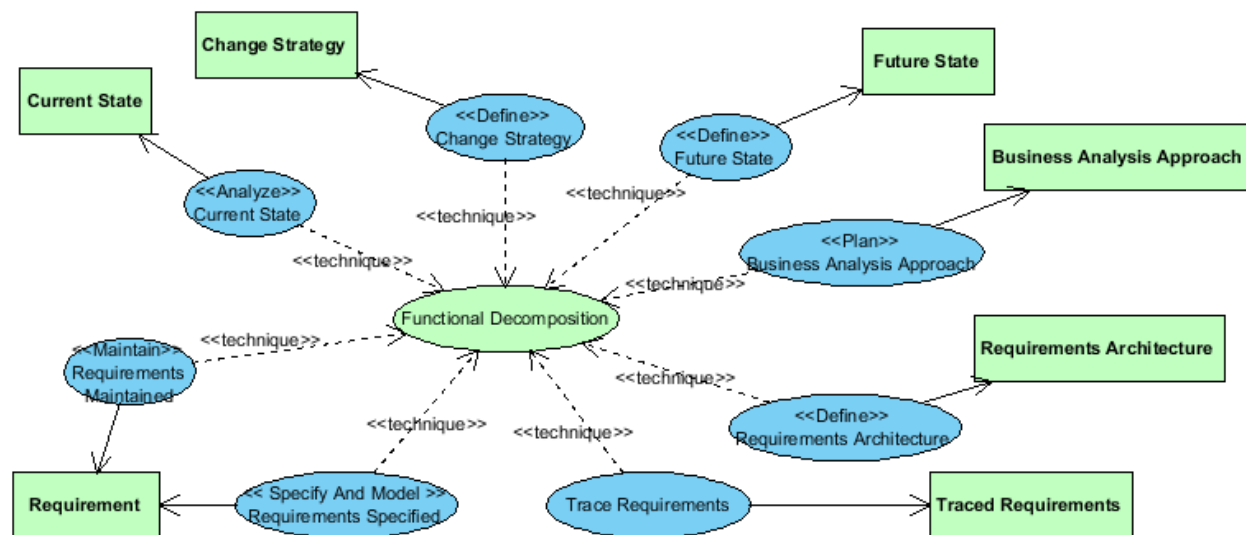


Figure 24: Functional Decomposition Technique

Figure 24 shows that the Functional Decomposition Technique maybe used in the creation of the Future State, Business Analysis Approach, Requirements Architecture, Traced Requirements, Requirements and the Current state.

23) Glossary

A glossary defines key terms relevant to a business domain.

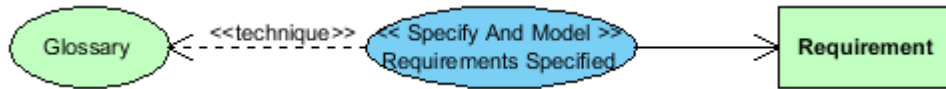


Figure 25: Glossary Technique

Figure 25 shows that the Glossary Technique maybe used in the specification of Requirements.

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- ♦ A Glossary is one of the simplest business analysis items to create and perhaps provides the best return on investment. It may be used by all project disciplines and in my opinion; it should be an essential artifact that is an input to every business analysis task.
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24) Interface Analysis

Interface analysis is used to identify where, what, why, when, how, and for whom information is exchanged between solution components or across solution boundaries.

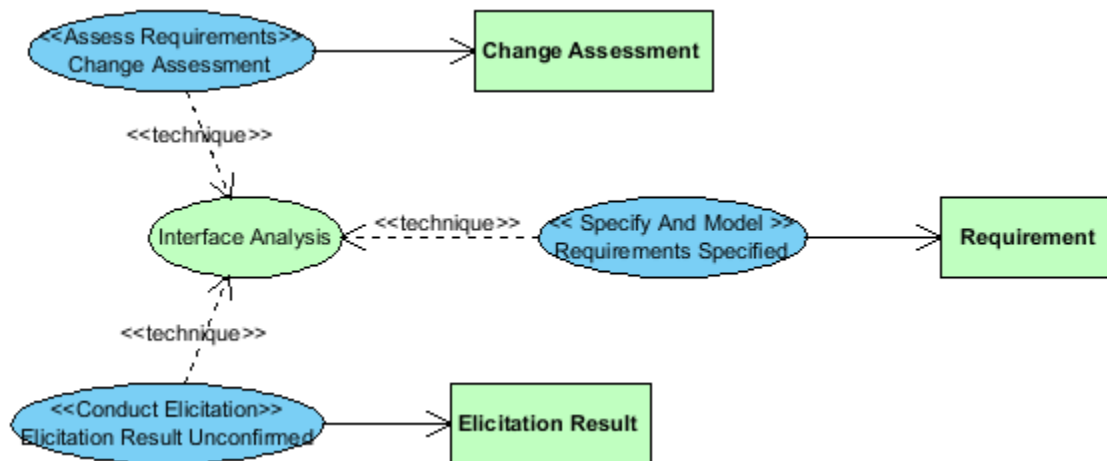


Figure 26: Interface Analysis Technique

Figure 26 shows that the Interface Analysis Technique maybe used in the creation of Change Assessments, Requirements Elicitation Results.

25) Interviews

An interview is a systematic approach designed to elicit business analysis information from a person or group of people by talking to the interviewee(s), asking relevant questions, and documenting the responses. The interview can also be used for establishing relationships and building trust between business analysts and stakeholders in order to increase stakeholder involvement or build support for a proposed solution.

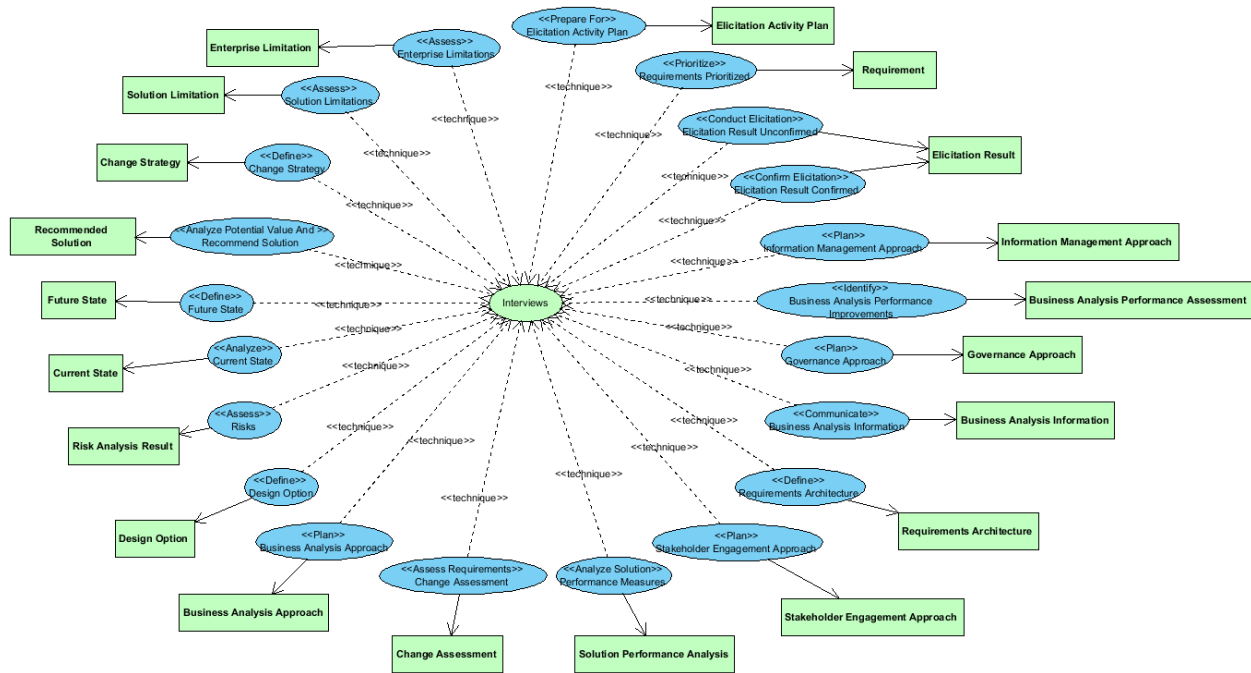


Figure 27: Interviews Technique

Figure 27 shows that the Interviews Technique maybe used in the creation of the Elicitation Activity Plan, Requirements, Elicitation Results, the Information Management Approach, Business Analysis Performance Assessment, Governance Approach, Business Analysis Information, Requirements Architecture, Stakeholder Engagement Approach, Solution Performance Analysis, Change Assessments, Business Analysis Approach, Design Options, Risk Analysis Results, the Current State, Future State, Recommended Solution, Change Strategy, Solution Limitations and Enterprise Limitations.

26) Item Tracking

Item tracking is used to capture and assign responsibility for issues and stakeholder concerns that pose an impact to the solution.

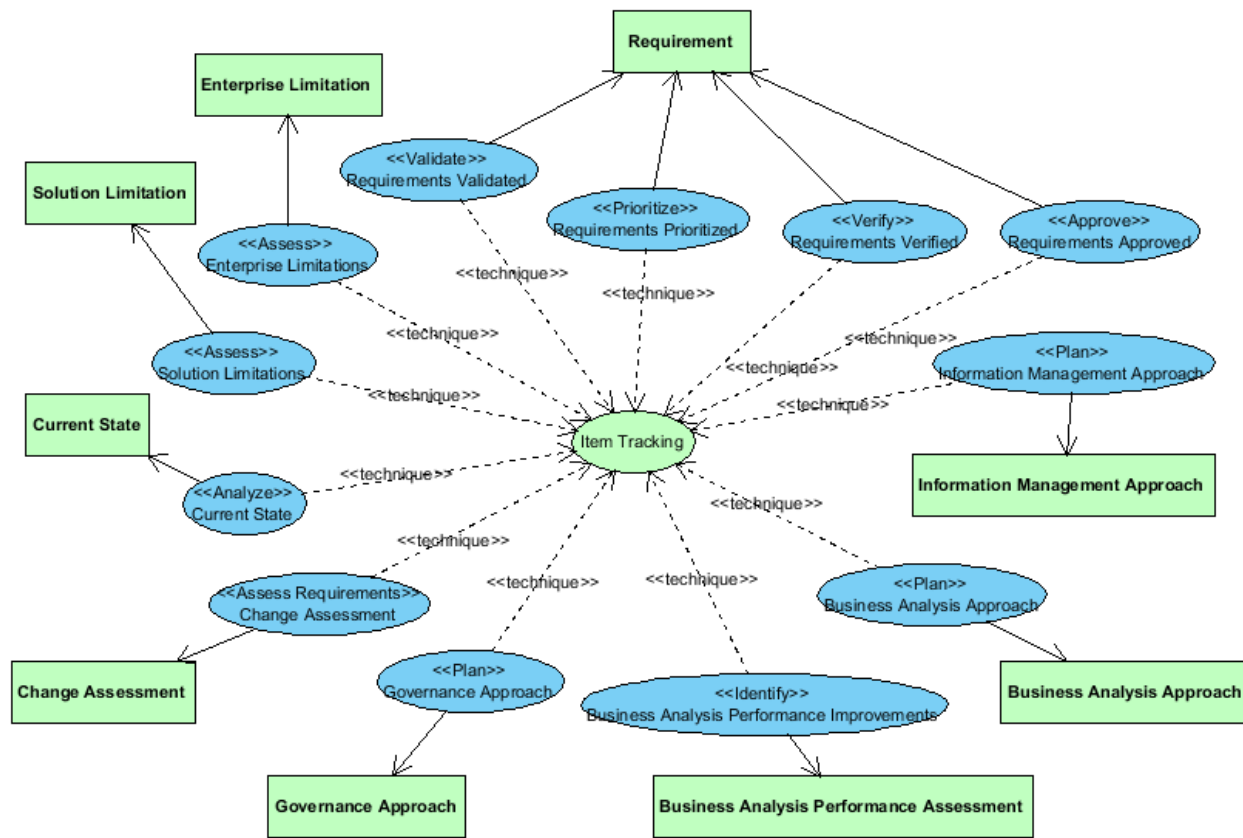


Figure 28: Item Tracking Technique

Figure 28 shows that the Item Tracking Technique may be used in the creation of Requirements, the Information Management Approach, Business Analysis Approach, Business Analysis Performance Assessment, Governance Approach, Change Assessments, Current State, Solution Limitations and Enterprise Limitations.

27) Lessons Learned

The purpose of the lessons learned process is to compile and document successes, opportunities for improvement, failures, and recommendations for improving the performance of future projects or project phases.

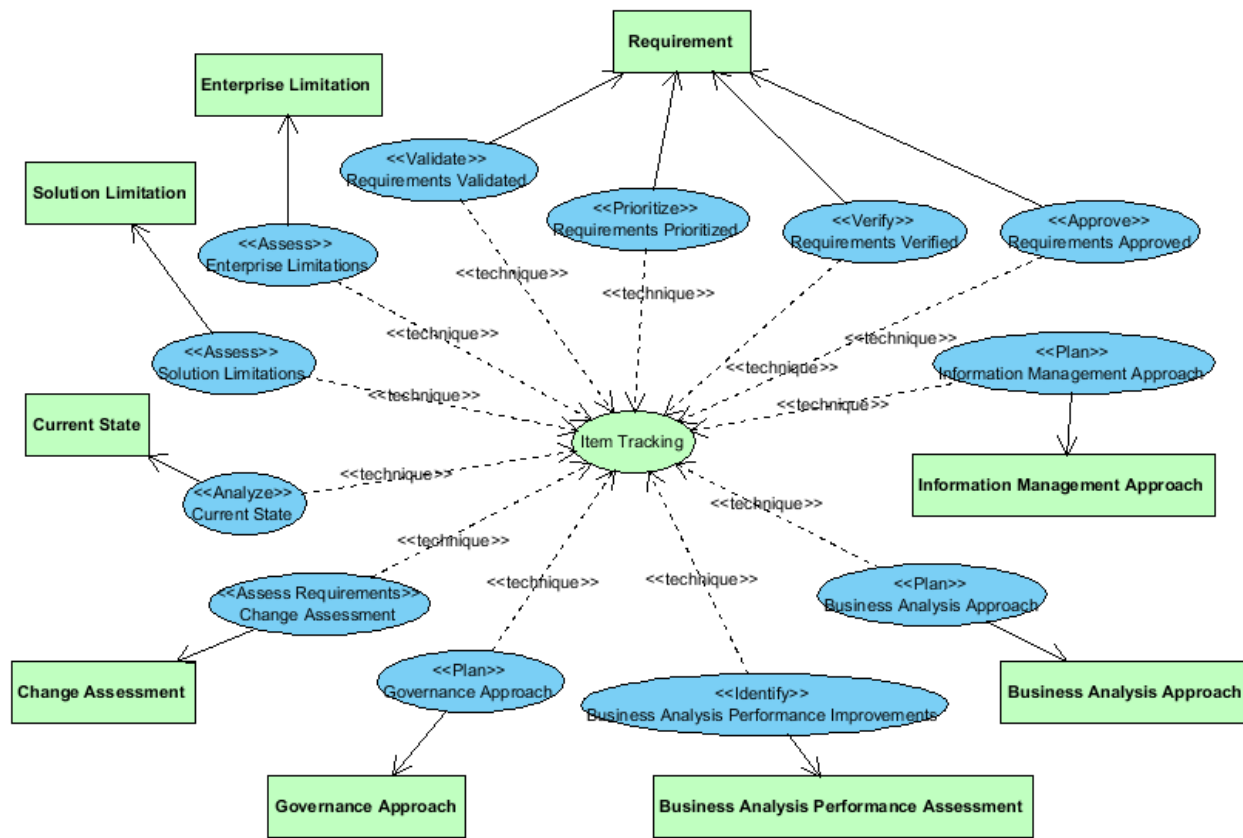


Figure 29: Lessons Learned Technique

Figure 29 shows that the Lessons Learned Technique may be used in the creation of Requirements, the Information Management Approach, Business Analysis Approach, Business Analysis Performance Assessment, Governance Approach, Change Assessments, Current State, Solution Limitations and Enterprise Limitations.

28) Metrics and KPIs

Metrics and key performance indicators measure the performance of solutions, solution components, and other matters of interest to stakeholders.

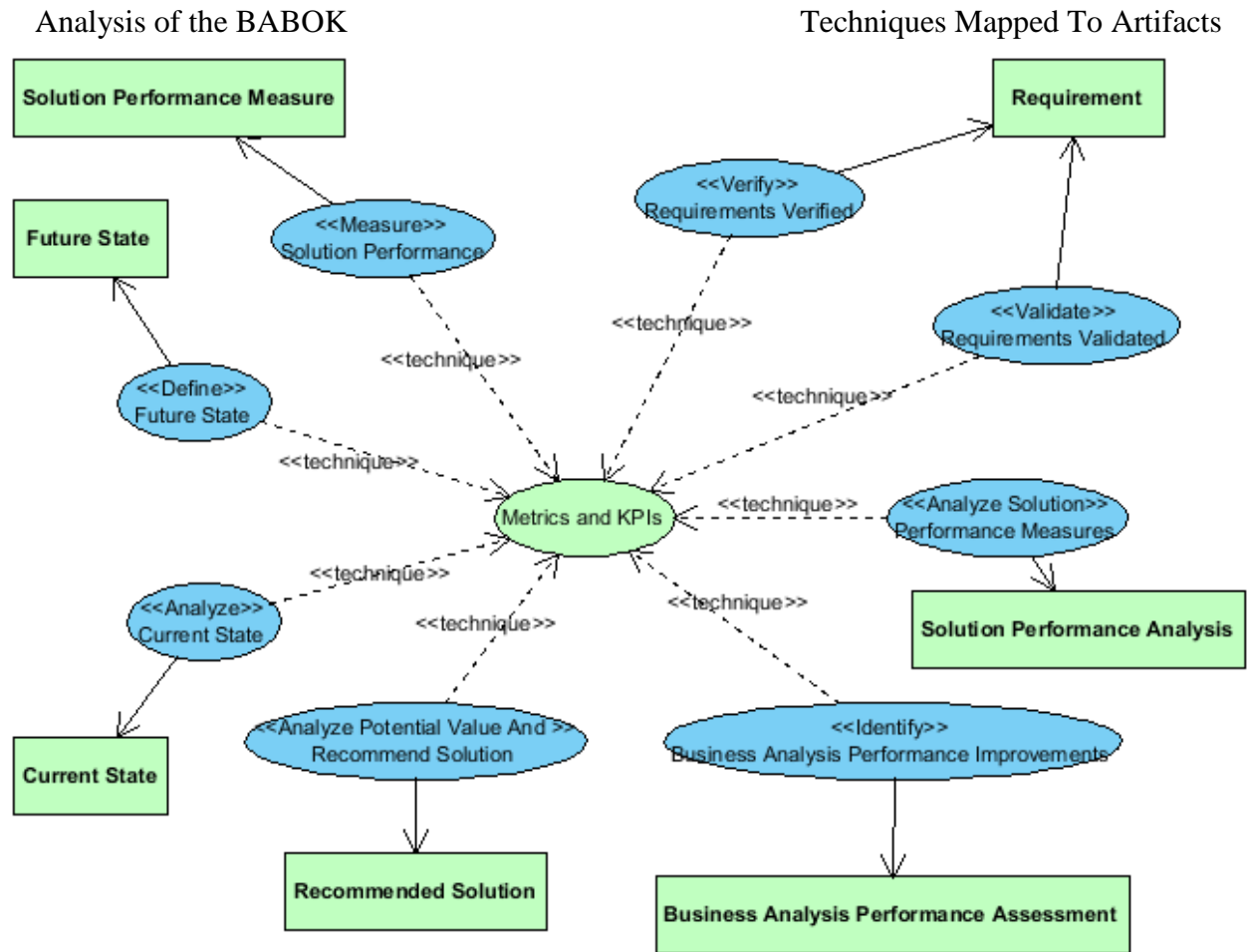


Figure 30: Metrics and KPIs Technique

Figure 30 shows that the Metrics and KPIs Technique may be used in the creation of Requirements, Solution Performance Analysis, Business Analysis Performance Assessment, Recommended Solution, Current State, Future State and Solution Performance Measures.

29) Mind Mapping

Mind mapping is used to articulate and capture thoughts, ideas, and information.

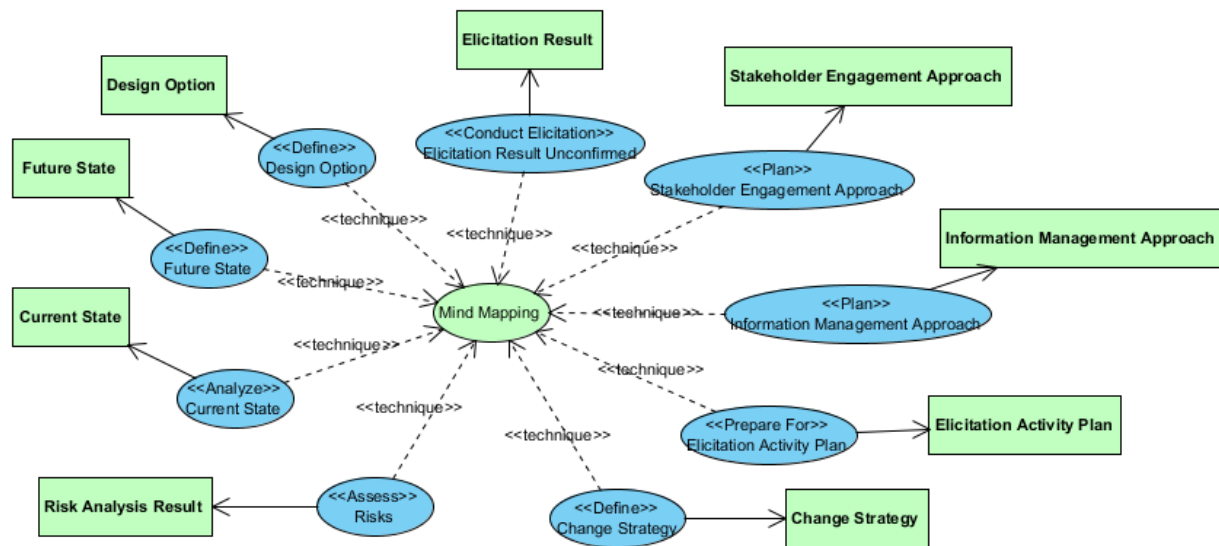


Figure 31: Mind Mapping Technique

Figure 31 shows that the Mind Mapping Technique maybe used in the creation of Elicitation Results, the Stakeholder Engagement Approach, Information Management Approach, Elicitation Activity Plan, Change Strategy, Risk Analysis Results, Current State, Future State and Design Options.

30) Non-Functional Requirements Analysis

Non-functional requirements analysis examines the requirements for a solution that define how well the functional requirements must perform. It specifies criteria that can be used to judge the operation of a system rather than specific behaviours (which are referred to as the functional requirements).

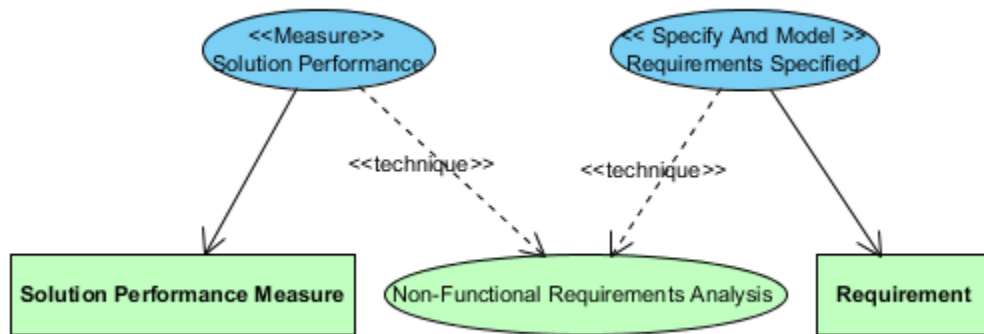


Figure 32: Non-Functional Requirements Analysis Technique

Figure 32 shows that the Non-Functional Requirements Analysis Technique maybe used in the creation of Solution Performance Measures and Requirements.

31) Observation

Observation is used to elicit information by viewing and understanding activities and their context. It is used as a basis for identifying needs and opportunities, understanding a business process, setting performance standards, evaluating solution performance, or supporting training and development.

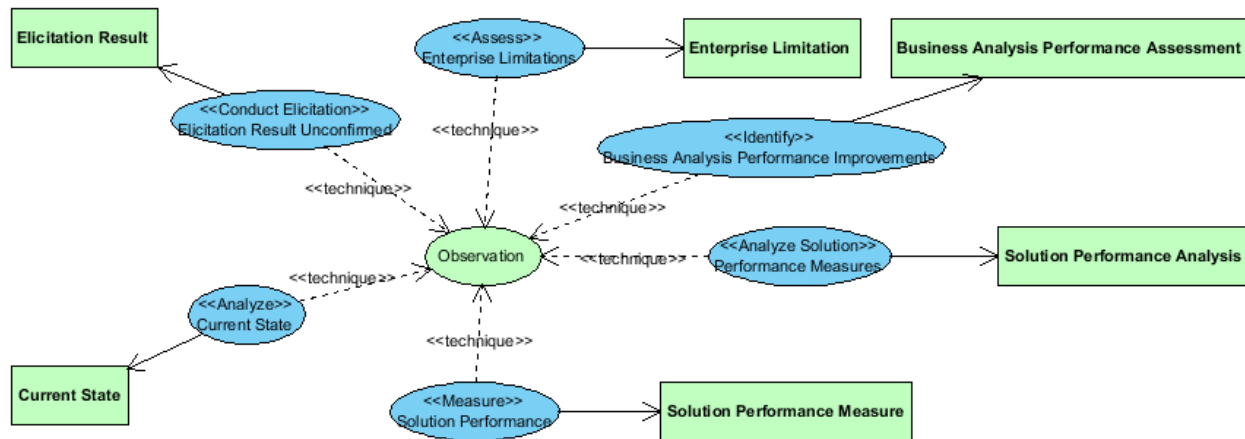


Figure 33: Observation Technique

Figure 33 shows that the Observation Technique maybe used in the creation of Enterprise Limitations, Business Analysis Performance Assessment and Elicitation Results.

32) Organizational Modelling

Organizational modelling is used to describe the roles, responsibilities, and reporting structures that exist within an organization and to align those structures with the organization's goals.

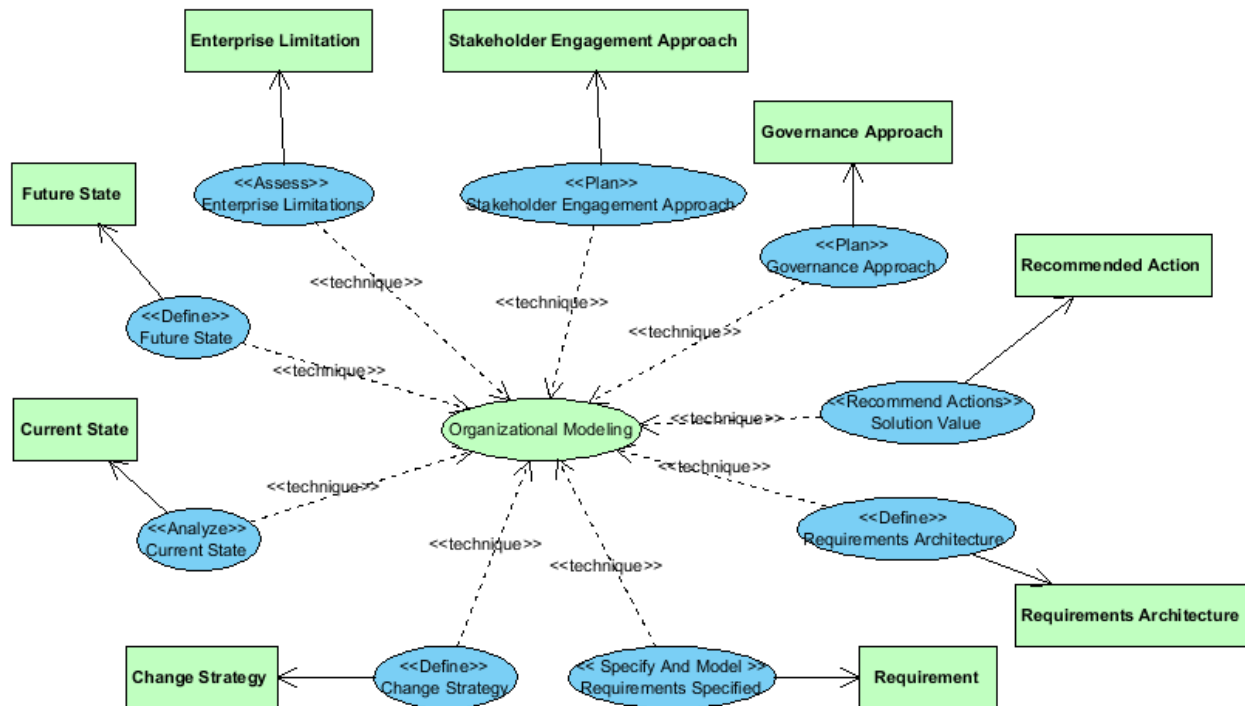


Figure 34: Organizational Modelling Technique

Figure 34 shows that the Organizational Modelling Technique maybe used in the creation of the Stakeholder Engagement Approach, Governance Approach, Recommended Actions, Requirements

Architecture, Requirements, Change Strategy, Future State, Current State and Enterprise Limitations.

33) Prioritization

Prioritization provides a framework for business analysts to facilitate stakeholder decisions and to understand the relative importance of business analysis information.

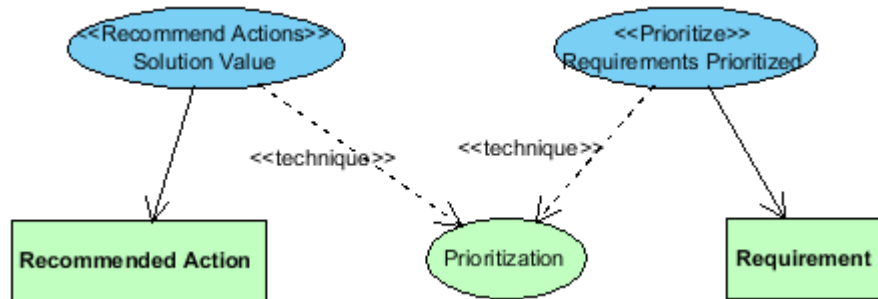


Figure 35: Prioritization Technique

Figure 35 shows that the Prioritization Technique maybe used in the creation of Recommended Actions and Requirements.

34) Process Analysis

Process analysis assesses a process for its efficiency and effectiveness, as well as its ability to identify opportunities for change.

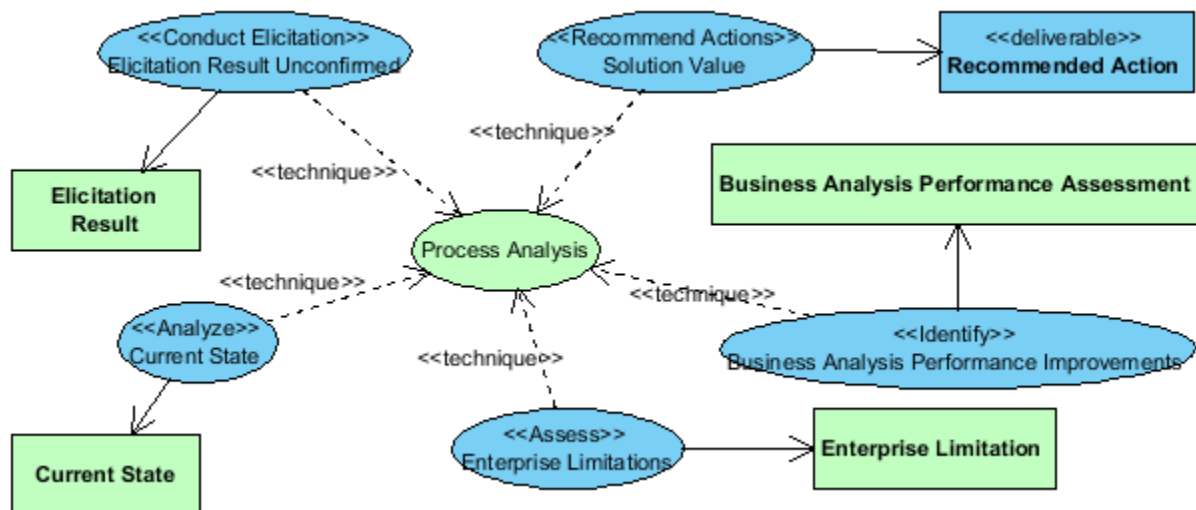


Figure 36: Process Analysis Technique

Figure 36 shows that the Process Analysis Technique maybe used in the creation of a Business Analysis Performance Assessment, Enterprise Limitations, Current State and Elicitation Results.

◆ Process Analysis is performed on a Process Model, so Process Modelling is performed before Process Analysis. For example, performing Process analysis on the Current State produces the Future state.

35) Process Modelling

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

◆ UML activity diagrams are a good example of process Modelling.

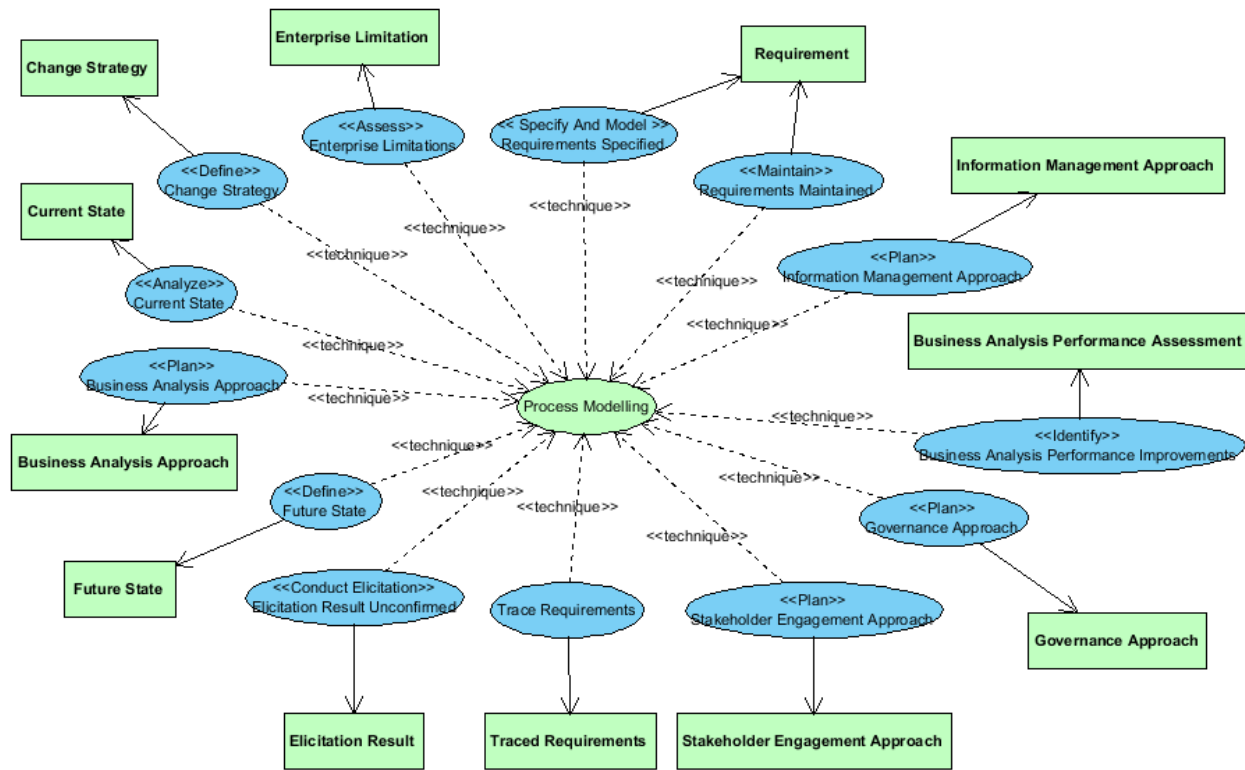


Figure 37: Process Modelling Technique

Figure 37 shows that the Process Modelling Technique may be used in the creation of Requirements, the Information Management Approach, Business Analysis Performance Assessment, Governance Approach, Stakeholder Engagement Approach, Traced Requirements, Elicitation Results, Future State, Business Analysis Approach, Current State, Change Strategy and Enterprise Limitations.

36) Prototyping

Prototyping is used to elicit and validate stakeholder needs through an iterative process that creates a model or design of requirements. It is also used to optimize user experience, to evaluate design options, and as a basis for development of the final business solution.

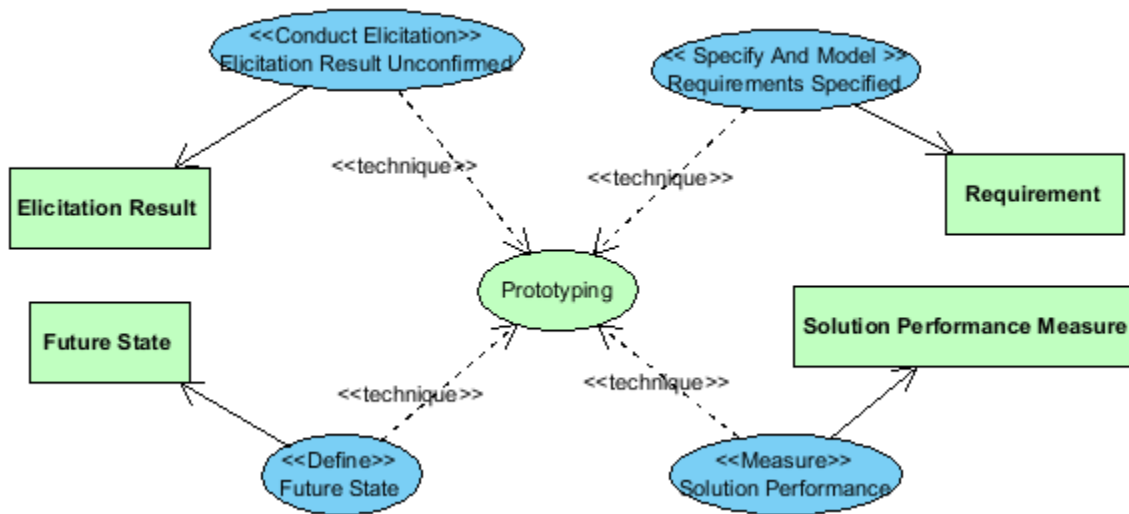


Figure 38: Prototyping Technique

Figure 38 shows that the Prototyping Technique maybe used in the creation of Requirements, Solution Performance Measures, the Future State and Elicitation Results.

37) Reviews

Reviews are used to evaluate the content of a work product.

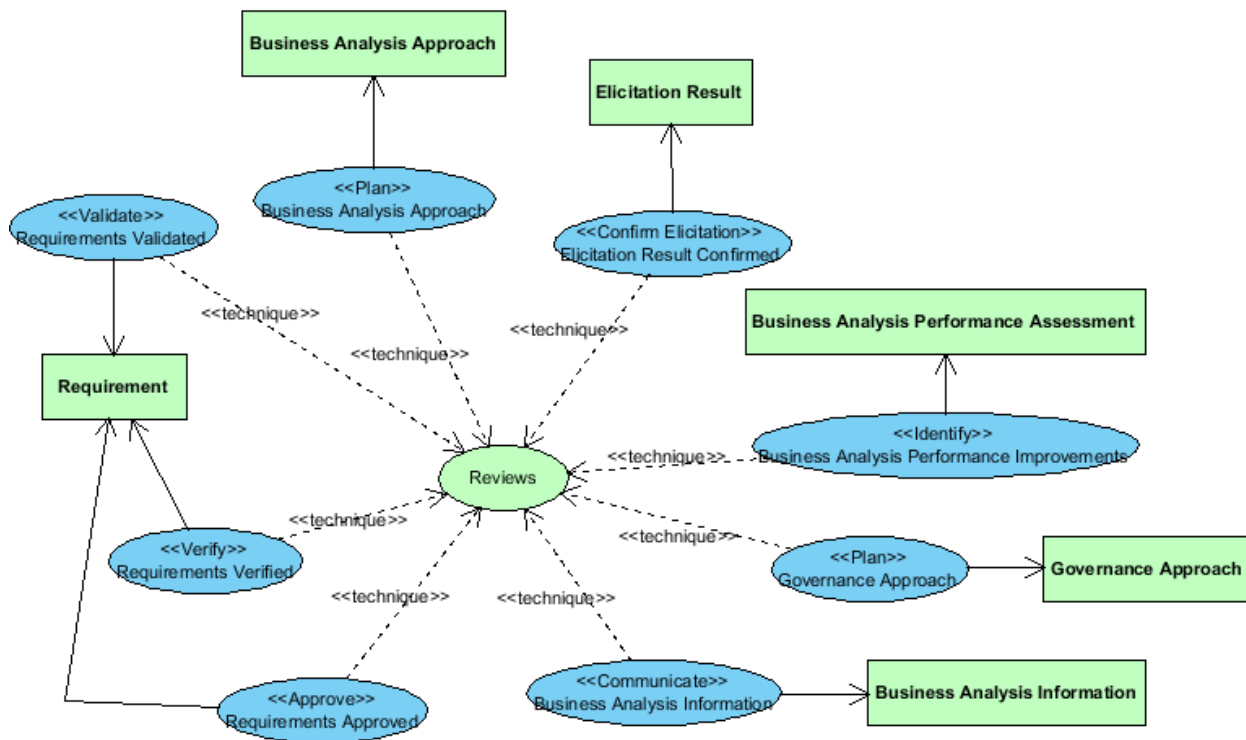


Figure 39: Reviews Technique

Figure 39 shows that the Reviews Technique maybe used in the creation of the Business Analysis Approach, Elicitation Results, Business Analysis Performance Assessment, Governance Approach, Business Analysis Information and Requirements.

38) Risk Analysis and Management

Risk analysis and management identifies areas of uncertainty that could negatively affect value, analyzes and evaluates those uncertainties, and develops and manages ways of dealing with the risks.

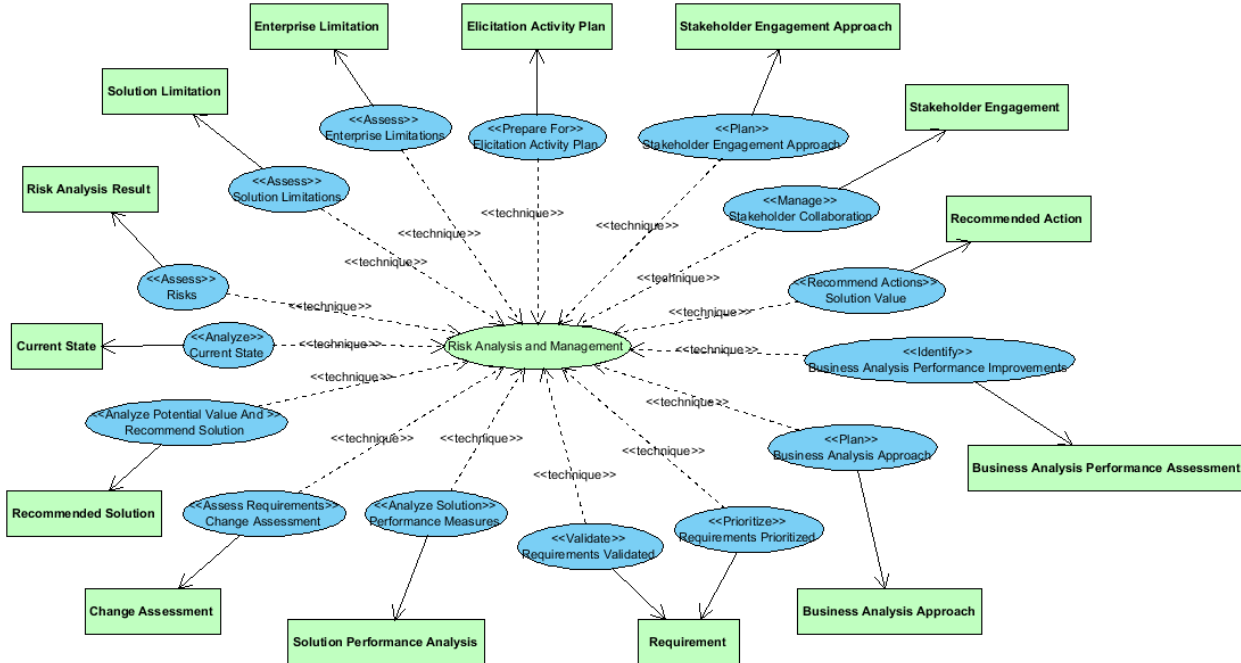


Figure 40: Risk Analysis And Management Technique

Figure 40 shows that the Risk Analysis And Management Technique maybe used in the creation of the Elicitation Activity Plan, Stakeholder Engagement Approach, Stakeholder Engagement, Recommended Actions, Business Analysis Performance Assessment, Business Analysis Approach, Requirements, Solution Performance Analysis, Change Assessments, Recommended Solution, Current state, Risk Analysis Results, Solution Limitation and Enterprise Limitations.

39) Roles and Permissions Matrix

A roles and permissions matrix is used to ensure coverage of activities by denoting responsibility, to identify roles, to discover missing roles, and to communicate results of a planned change.

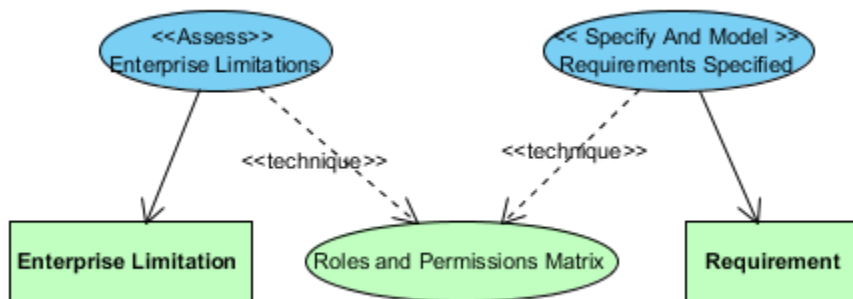


Figure 41: Roles And Permissions Matrix Technique

Figure 41 shows that the Roles And Permissions Matrix Technique maybe used in the creation of Enterprise Limitations and Requirements.

40) Root Cause Analysis

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

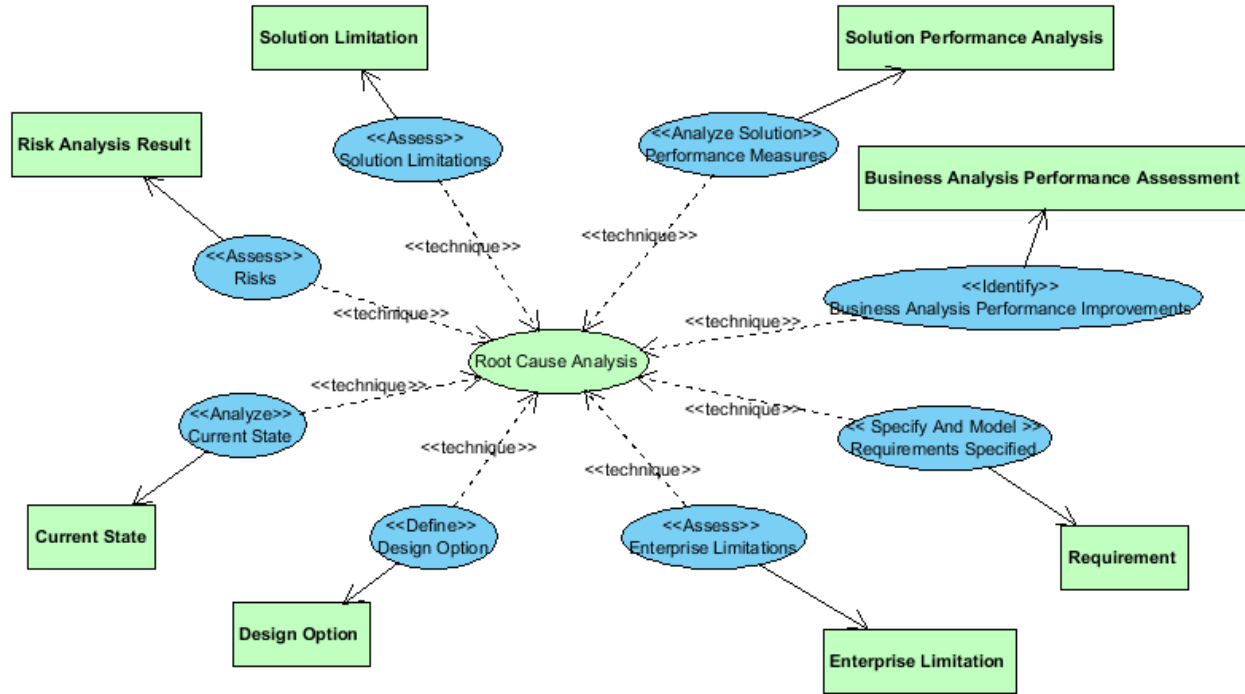


Figure 42: Root Cause Analysis Technique

Figure 42 shows that the Root Cause Analysis Technique may be used in the creation of Solution Performance Analysis, Business Analysis Performance Assessment, Requirements, Enterprise Limitations, Design Options, Current State, Risk Analysis Results and Solution Limitations.

41) Scope Modelling

Scope models define the nature of one or more limits or boundaries and place elements inside or outside those boundaries.

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- ◆ Context diagrams are commonly used to model scope. These are a component of Functional Decomposition using Data Flow Diagrams, but may also be used independently of these techniques.
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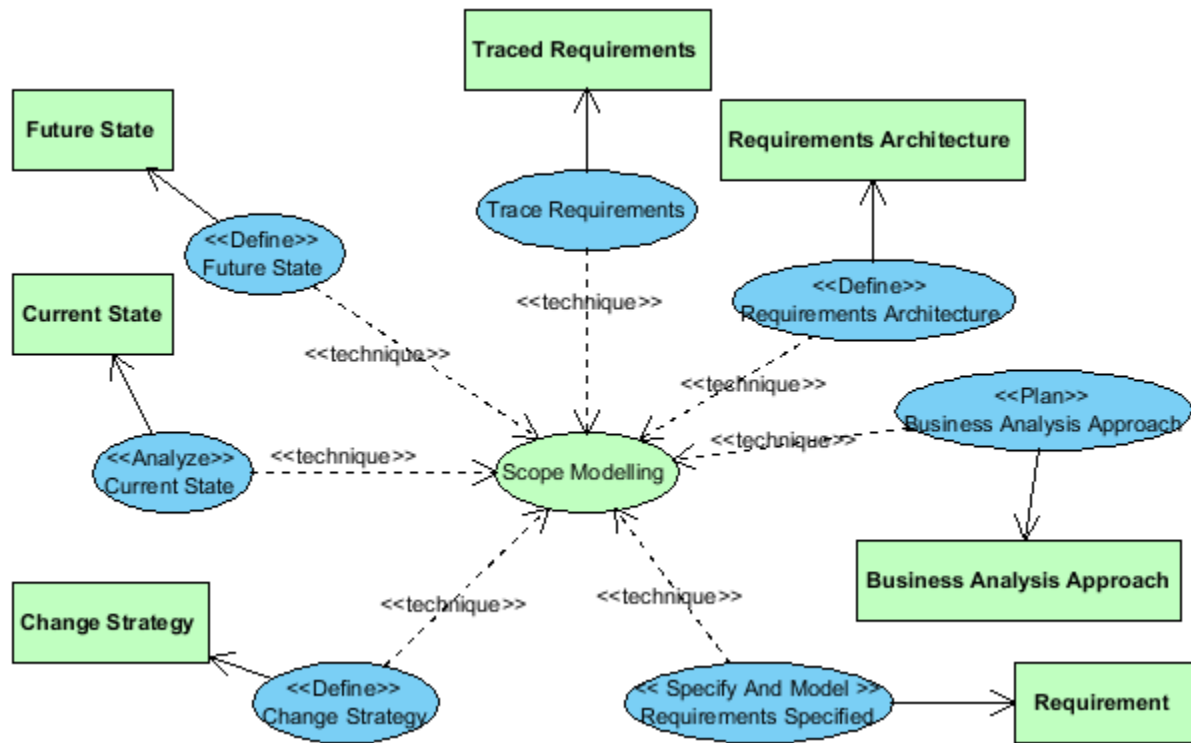


Figure 43: Scope Modelling Technique

Figure 43 shows that the Scope Modelling Technique maybe used in the creation of Traced Requirements, the Requirements Architecture, Business analysis Approach, Requirements, Change Strategy, Current State and Future State.

42) Sequence Diagrams

Sequence diagrams are used to model the logic of usage scenarios by showing the information passed between objects in the system through the execution of the scenario.

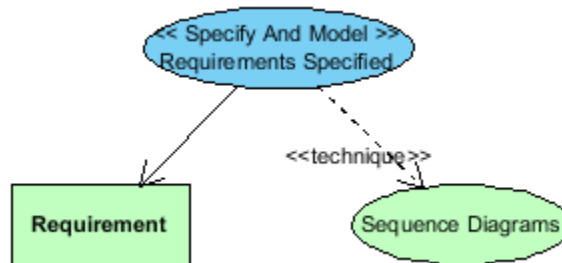


Figure 44: Sequence Diagrams Technique

Figure 44 shows that the Sequence Diagrams Technique maybe used in the creation of Requirements.

◆ I may use Sequence Diagrams anytime a process is being modelled. Including models of the Current and Future State.

43) Stakeholder List, Map, Personas

Stakeholder lists, maps, and personas assist the business analyst in analyzing stakeholders and their characteristics. This analysis is important in ensuring that the business analyst identifies all possible sources of requirements and that the stakeholder is fully understood so decisions made regarding

stakeholder engagement, collaboration, and communication are the best choices for the stakeholder and for the success of the initiative.

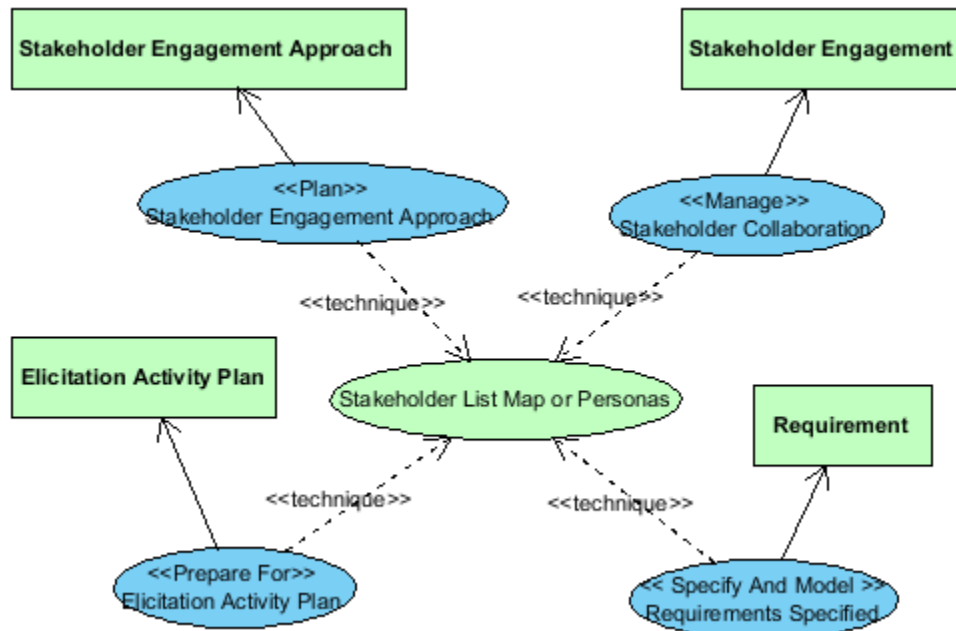


Figure 45: Stakeholder List Map Or Personas Technique

Figure 45 shows that the Stakeholder List Map Or Personas Technique maybe used in the creation of Requirements and the Elicitation Activity Plan.

44) State Modelling

State modelling is used to describe and analyze the different possible states of an entity within a system, how that entity changes from one state to another, and what can happen to the entity when it is in each state.

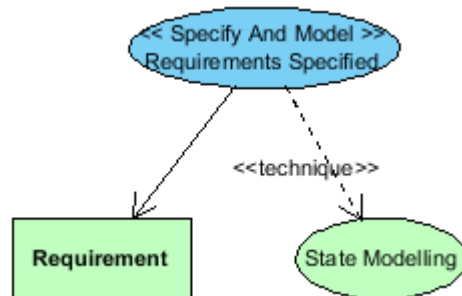


Figure 46: State Modelling Technique

Figure 46 shows that the State Modelling Technique maybe used in the creation of Requirements.

- ◆ Example state Modelling notations include Harel (adopted by UML), Mealy and Moore. I may use State Machines Diagrams anytime a process is being modelled. Including models of the Current and Future State.

45) Survey or Questionnaire

A survey or questionnaire is used to elicit business analysis information—including information about customers, products, work practices, and attitudes—from a group of people in a structured way and in a relatively short period of time.

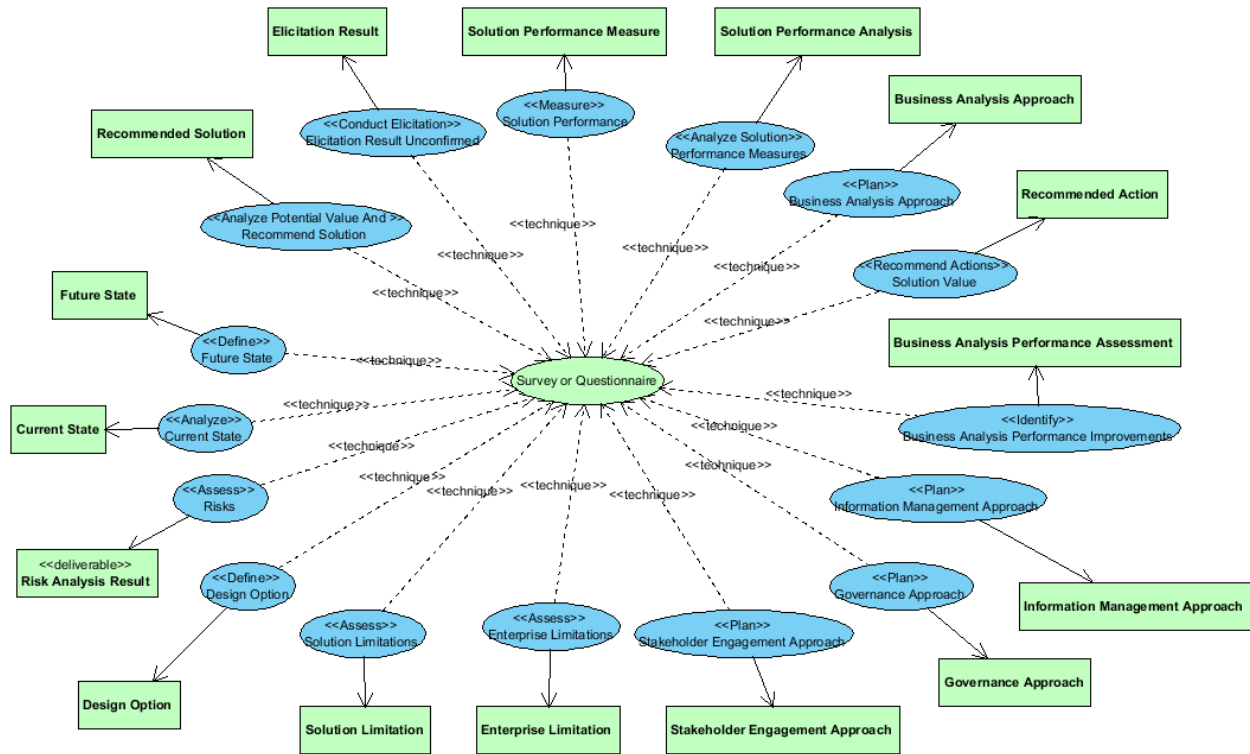


Figure 47: Survey Or Questionnaire Technique

Figure 47 shows that the Survey Or Questionnaire Technique may be used in the creation of Solution Performance Measures, Solution Performance Analysis, the Business Analysis Approach, Recommended Actions, Business Analysis Performance Assessment, Information Management Approach, Governance Approach, Stakeholder Engagement Approach, Enterprise Limitations, Solution Limitations, Design Options, Risk Analysis Result, the Current state, Future State, Recommended Solution and Elicitation Results.

46) SWOT Analysis

SWOT analysis is a simple yet effective tool used to evaluate an organization's strengths, weaknesses, opportunities, and threats to both internal and external conditions.

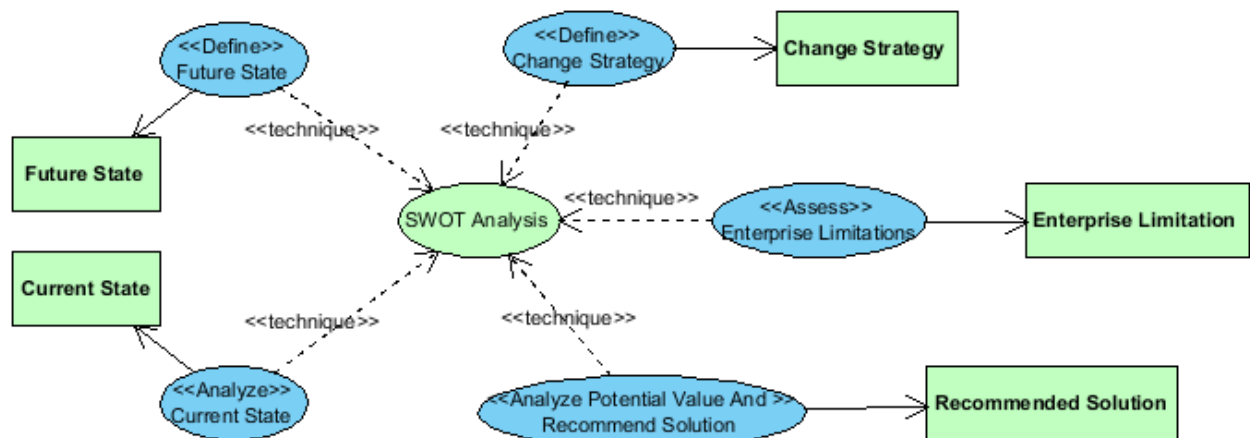


Figure 48: SWOT Analysis Technique

Figure 48 shows that the SWOT Analysis Technique maybe used in the creation of Change Strategy, Enterprise Limitations, the Recommended Solution, Current State and Future State.

47) Use Cases and Scenarios

Use cases and scenarios describe how a person or system interacts with the solution being modelled to achieve a goal.

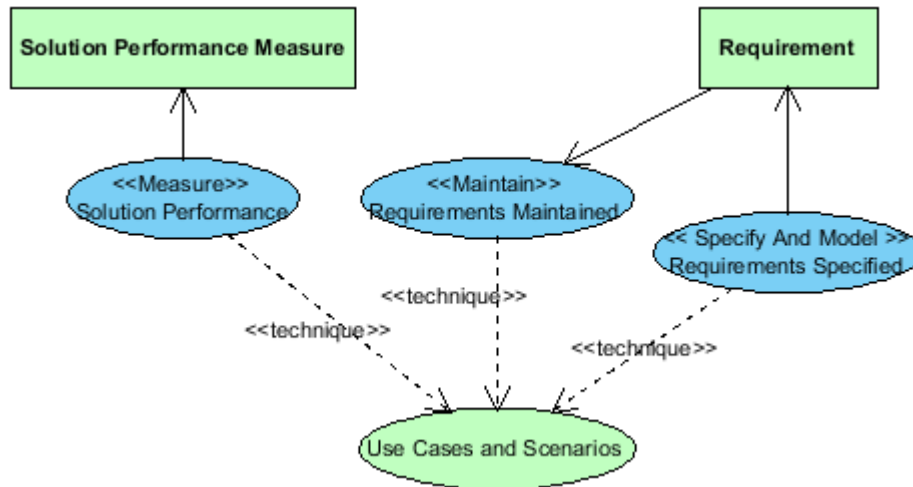


Figure 49: Use Cases And Scenarios Technique

Figure 49 shows that the Use Cases And Scenarios Technique maybe used in the creation of Requirements and Solution Performance Measures.

48) User Stories

A user story represents a small, concise statement of functionality or quality needed to deliver value to a specific stakeholder.

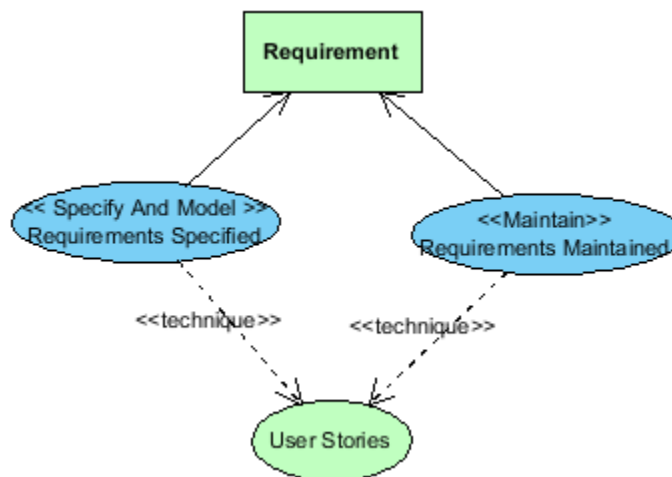


Figure 50: User Stories Technique

Figure 50 shows that the User Stories Technique maybe used in the creation of Requirements.

49) Vendor Assessment

A vendor assessment assesses the ability of a vendor to meet commitments regarding the delivery and the consistent provision of a product or service.

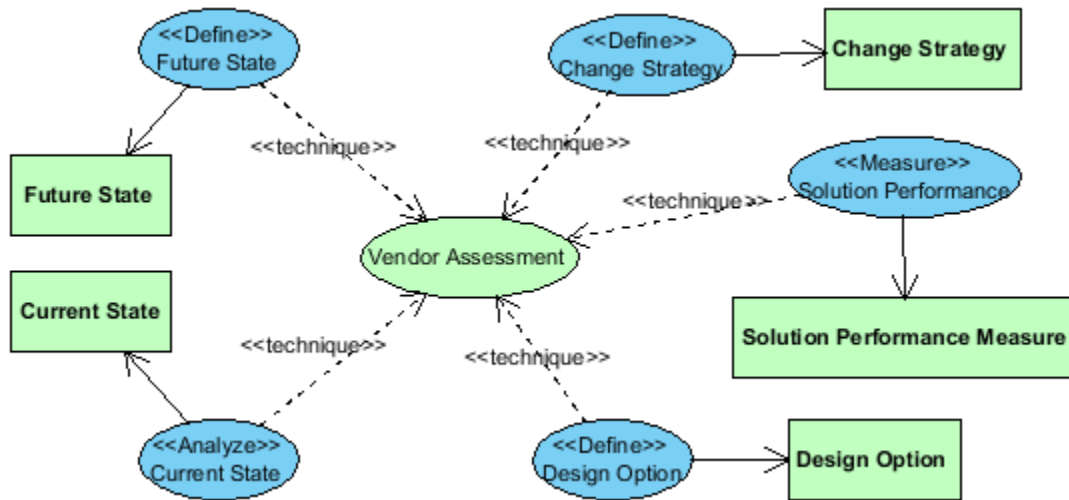


Figure 51: Vendor Assessment Technique

Figure 51 shows that the Vendor Assessment Technique maybe used in the creation of the Change Strategy, Solution Performance Measures, Design Options, the Current State and Future State.

50) Workshops

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

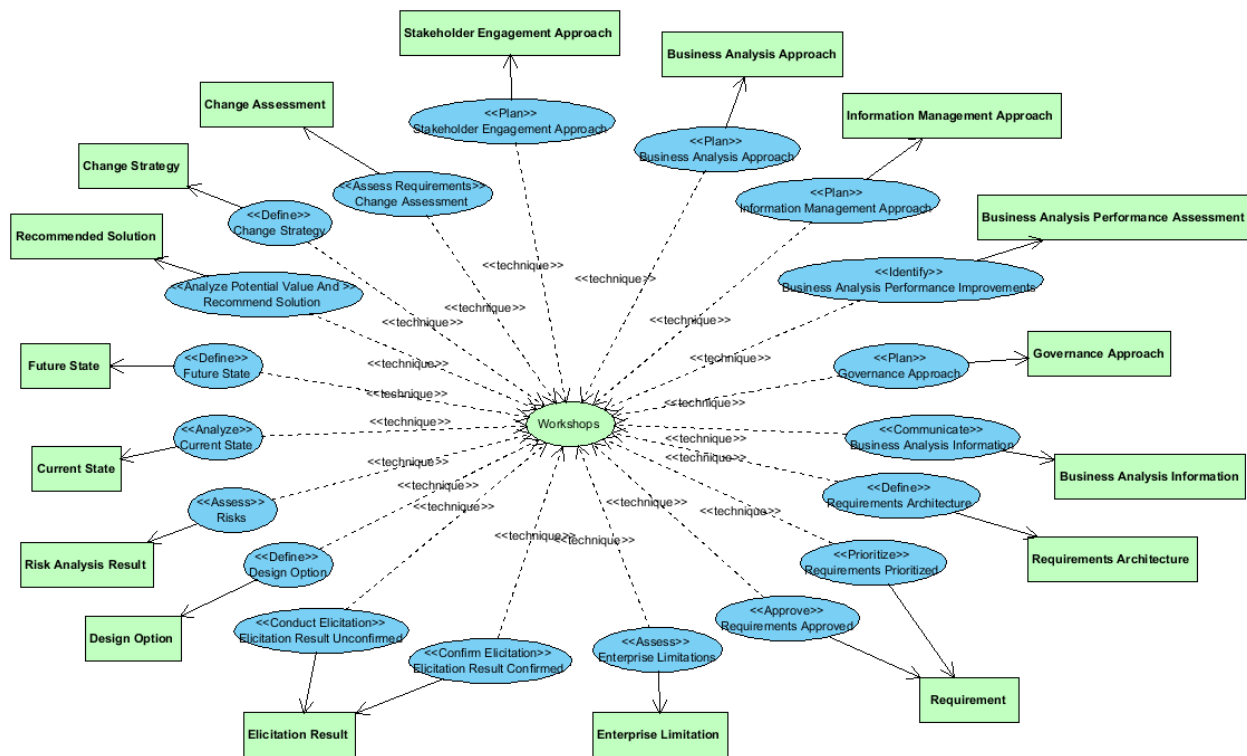


Figure 52: Workshops Technique

Figure 52 shows that the Workshops Technique maybe used in the creation of the Stakeholder Engagement Approach, Business Analysis Approach, Information Management Approach,

Business Analysis Performance Assessment, Governance Approach, Business Analysis Information, Requirements Architecture, Requirements, Enterprise Limitations, Elicitation Results, Design Options, Risk Analysis Results, Current State, Future State, Recommended Solution, Change Strategy and Change Assessments.

Summary

The diagrams in this article were copied from an analysis model of the BABOK. This model was created in Visual Paradigm, by capturing the BABOK content as artifacts, stakeholders, techniques, tasks, guidelines and tools, and the relationships between them.

This article demonstrates relationships between techniques and artifacts. This showed, that for a given technique, where you might use that technique during your analysis activity.