Sure, here are more in-depth definitions for the terms along with their citations from the PMBOK 6th and 7th editions, and the Agile Practice Guide.

 Methodology Categories

1.1 Predictive:
Predictive methodology, often referred to as the Waterfall approach, is a traditional project management methodology. It relies on a sequential, linear process where the project scope, time, and cost are defined at the beginning and any changes are managed through a formal change control process. This methodology is most effective for projects with well-defined requirements and deliverables that are unlikely to change.
- Source: PMBOK 6th Edition, p. 17; PMBOK 7th Edition, p. 35; Agile Practice Guide, p. 17

1.2 Agile:
Agile methodology is an iterative and incremental approach to project management and software development that emphasizes flexibility, collaboration, customer feedback, and small, rapid releases. Agile projects are characterized by a series of small, usable product increments developed in short timeframes, known as iterations or sprints. This methodology is well-suited for projects with high levels of uncertainty and the need for frequent reassessment and adaptation.
- Source: PMBOK 6th Edition, p. 19; PMBOK 7th Edition, p. 38; Agile Practice Guide, p. 11

1.3 Hybrid:
Hybrid methodology combines elements of both predictive and agile approaches. It leverages the discipline and control of predictive methodologies while incorporating the flexibility and iterative nature of agile. Hybrid approaches are tailored to the specific needs and contexts of the project, often used when parts of the project are well-understood and other parts are more uncertain.
- Source: PMBOK 6th Edition, p. 19; PMBOK 7th Edition, p. 34; Agile Practice Guide, p. 26

 Project Artifacts: Business Documents

2.1 Benefits Management Plan:
The Benefits Management Plan outlines the processes for creating, maximizing, and sustaining the benefits provided by a project or program. It includes the expected benefits, how they will be measured, and the plan for achieving and sustaining these benefits. The plan ensures that the benefits are aligned with the organization's strategic objectives.
- Source: PMBOK 6th Edition, p. 33; PMBOK 7th Edition, p. 236

2.2 Business Case:
A Business Case is a documented economic feasibility study used to establish the validity of the benefits of a selected component lacking sufficient definition and that is used as a basis for the authorization of further project management activities. It justifies the necessity of the project and outlines the problem, the proposed solution, and the benefits, costs, and risks associated with the project.
- Source: PMBOK 6th Edition, p. 29; PMBOK 7th Edition, p. 34

 Project Artifacts: Project Plans

3.1 Scope Management Plan:
The Scope Management Plan is a component of the project management plan that describes how the project scope will be defined, developed, monitored, controlled, and validated. It includes processes for preparing a detailed project scope statement, creating, validating, and controlling the WBS, and formally accepting project deliverables.

- Source: PMBOK 6th Edition, p. 135; PMBOK 7th Edition, p. 187

3.2 Requirements Management Plan:
The Requirements Management Plan is a component of the project management plan that describes how requirements will be analyzed, documented, and managed. It outlines how the requirements will be collected, defined, and tracked throughout the project lifecycle to ensure that the project deliverables meet the stakeholders' needs.
- Source: PMBOK 6th Edition, p. 137; PMBOK 7th Edition, p. 186

3.3 Schedule Management Plan:
The Schedule Management Plan is a component of the project management plan that establishes the criteria and the activities for developing, monitoring, and controlling the project schedule. It details the scheduling methodology, tools and techniques, and the format and frequency of schedule-related reporting.
- Source: PMBOK 6th Edition, p. 181; PMBOK 7th Edition, p. 187

3.4 Cost Management Plan:
The Cost Management Plan is a component of the project management plan that describes how project costs will be planned, structured, and controlled. It includes processes for estimating, budgeting, and controlling costs to ensure that the project is completed within the approved budget.
- Source: PMBOK 6th Edition, p. 238; PMBOK 7th Edition, p. 186

3.5 Quality Management Plan:
The Quality Management Plan is a component of the project management plan that describes how the organization's quality policies will be implemented. It includes processes and activities for planning, managing, and controlling project and product quality requirements, ensuring that deliverables meet the established standards and are fit for use.
- Source: PMBOK 6th Edition, p. 286; PMBOK 7th Edition, p. 186

3.6 Resource Management Plan:
The Resource Management Plan is a component of the project management plan that provides guidance on how project resources should be identified, acquired, allocated, monitored, and controlled. It includes roles and responsibilities, project organization charts, and resource calendars.
- Source: PMBOK 6th Edition, p. 318; PMBOK 7th Edition, p. 186

3.7 Communication Management Plan:
The Communication Management Plan is a component of the project management plan that describes how project communications will be planned, structured, monitored, and controlled. It ensures that the information needs of the project stakeholders are met through effective communication processes.
- Source: PMBOK 6th Edition, p. 377; PMBOK 7th Edition, p. 186

3.8 Risk Management Plan:
The Risk Management Plan is a component of the project management plan that describes how risk management activities will be structured and performed. It includes processes for identifying, analyzing, responding to, and monitoring project risks.
- Source: PMBOK 6th Edition, p. 405; PMBOK 7th Edition, p. 186

3.9 Procurement Management Plan:
The Procurement Management Plan is a component of the project management plan that describes how a project team will acquire goods and services from outside the performing

organization. It includes the procurement process, contract types, and the criteria for selection of sellers.
- Source: PMBOK 6th Edition, p. 475; PMBOK 7th Edition, p. 186

3.10 Stakeholder Engagement Plan:
The Stakeholder Engagement Plan is a component of the project management plan that identifies the strategies and actions required to promote productive involvement of stakeholders in project or program decision-making and execution.
- Source: PMBOK 6th Edition, p. 269/368; PMBOK 7th Edition, p. 187

3.11 Change Management Plan:
The Change Management Plan is a component of the project management plan that establishes the change control board, documents the extent of its authority, and describes how the change control system will be implemented.
- Source: PMBOK 6th Edition, p. 88, 116

3.12 Configuration Management Plan:
The Configuration Management Plan is a component of the project management plan that describes how configuration management will be performed. It includes the processes and procedures for maintaining the consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life.
- Source: PMBOK 6th Edition, p. 116

3.13 Scope Baseline:
The Scope Baseline is an approved version of the detailed project scope statement, work breakdown structure (WBS), and its associated WBS dictionary. It can be changed only through formal change control procedures and is used as a basis for comparison.
- Source: PMBOK 6th Edition, p. 161; PMBOK 7th Edition, p. 188

3.14 Schedule Baseline:
The Schedule Baseline is an approved version of a schedule model that can be changed only through formal change control procedures and is used as a basis for comparison to actual results.
- Source: PMBOK 6th Edition, p. 87; PMBOK 7th Edition, p. 249

3.15 Cost Baseline:
The Cost Baseline is the approved version of the time-phased project budget that can be changed only through formal change control procedures and is used as a basis for comparison to actual results.
- Source: PMBOK 6th Edition, p. 87; PMBOK 7th Edition, p. 237

3.16 Performance Measurement Baseline:
The Performance Measurement Baseline is an integrated scope-schedule-cost plan for the project work against which project execution is compared to measure and manage performance.
- Source: PMBOK 6th Edition, p. 88; PMBOK 7th Edition, p. 188

3.17 Project Life Cycle Description:
The Project Life Cycle is the series of phases that a project passes through from its initiation to its closure. It provides a framework for managing the project and includes phases such as initiation, planning, execution, monitoring and controlling, and closing.
- Source: PMBOK 6th Edition, p. 135

3.18 Development Approach:

The Development Approach describes the method used to create and evolve the product, service, or result during the project life cycle. It includes methodologies such as predictive, iterative, incremental, agile, or a hybrid of these approaches. The development approach is selected based on project characteristics and stakeholder requirements.
- Source: PMBOK 6th Edition, p. 88; PMBOK 7th Edition, p. 33

3.19 Management Review:
Management Reviews are structured meetings conducted by senior management to assess the status of the project or program. These reviews evaluate progress against the plan, identify any issues or risks, and make decisions about the future direction of the project. They ensure alignment with organizational goals and provide oversight and governance.
- Source: PMBOK 6th Edition, p. 88

Project Artifacts: Project Documents

4.1 Activity Attributes:
Activity Attributes are detailed descriptions of the activities in a project schedule, including information such as activity codes, descriptions, predecessors, successors, logical relationships, leads and lags, resource requirements, imposed dates, constraints, and assumptions.
- Source: PMBOK 6th Edition, p. 186

4.2 Activity List:
The Activity List is a comprehensive list of all the activities that need to be performed in a project. It includes activity identifiers and a scope of work description for each activity to ensure that project team members understand what work is required to complete each activity.
- Source: PMBOK 6th Edition, p. 185

4.3 Assumption Log:
The Assumption Log is a project document used to record all assumptions and constraints throughout the project life cycle. Assumptions are factors considered to be true, real, or certain without proof, while constraints are limiting factors that affect the execution of the project.
- Source: PMBOK 6th Edition, p. 81; PMBOK 7th Edition, p. 185

4.4 Basis of Estimates:
The Basis of Estimates provides documentation on how various project estimates (time, cost, resource) were derived. It includes assumptions, constraints, level of detail, ranges, and confidence levels associated with the estimates.
- Source: PMBOK 6th Edition, p. 108; PMBOK 7th Edition, p. 236

4.5 Change Log:
The Change Log is a comprehensive list of all changes submitted during the project, tracking their status, approval, and implementation. It includes information on change requests, decisions made, and the impact of changes on the project baselines.
- Source: PMBOK 6th Edition, p. 92; PMBOK 7th Edition, p. 185

4.6 Cost Estimates:
Cost Estimates are quantitative assessments of the likely costs for resources required to complete project activities. They include direct and indirect costs and provide a basis for developing the project budget.
- Source: PMBOK 6th Edition, p. 241

4.7 Cost Forecasts:

Cost Forecasts provide predictions of future project costs based on current performance information and trends. They help in managing the budget and taking corrective actions if needed to ensure that the project remains within the approved budget.
- Source: PMBOK 6th Edition, p. 108

4.8 Duration Estimates:
Duration Estimates are assessments of the number of work periods required to complete individual activities, typically expressed in hours, days, or weeks. They are based on the scope of work, resource availability, and project constraints.
- Source: PMBOK 6th Edition, p. 203

4.9 Issue Log:
The Issue Log is a project document used to capture and track issues that arise during the project lifecycle. It includes details of each issue, its impact, resolution status, and actions taken to manage and resolve it.
- Source: PMBOK 6th Edition, p. 96; PMBOK 7th Edition, p. 185

4.10 Lessons Learned Register:
The Lessons Learned Register is a project document used to record knowledge gained during the project, including both successes and challenges. It captures lessons learned to be applied to future phases of the project or to other projects to improve performance.
- Source: PMBOK 6th Edition, p. 97; PMBOK 7th Edition, p. 185

4.11 Milestone List:
The Milestone List identifies all significant points or events in a project, such as the completion of major deliverables or phases. Milestones are used to monitor project progress and are often included in project schedules and reports.
- Source: PMBOK 6th Edition, p. 92

4.12 Physical Resource Assignments:
Physical Resource Assignments document the allocation of physical resources (e.g., materials, equipment, facilities) to project activities. This ensures that the necessary resources are available when needed to complete the project tasks.
- Source: PMBOK 6th Edition, p. 354

4.13 Project Calendars:
Project Calendars define the working days and shifts available for scheduled activities. They account for organizational holidays, work shifts, and resource availability, ensuring that project activities are planned and executed within the defined timeframes.
- Source: PMBOK 6th Edition, p. 225

4.14 Project Communications:
Project Communications refer to the distribution of project information to stakeholders according to the Communication Management Plan. This includes status reports, progress updates, meeting minutes, and other relevant communications.
- Source: PMBOK 6th Edition, p. 92

4.15 Project Schedule:
The Project Schedule is a timeline that outlines the planned start and finish dates for project activities and milestones. It is a key tool for managing time and ensuring that project deliverables are completed on schedule.
- Source: PMBOK 6th Edition, p. 93; PMBOK 7th Edition, p. 188

4.16 Project Schedule Network Diagram:

The Project Schedule Network Diagram is a graphical representation of the logical relationships among project activities. It helps to identify the sequence of tasks, dependencies, and the critical path.
- Source: PMBOK 6th Edition, p. 194; PMBOK 7th Edition, p. 189

4.17 Project Scope Statement:
The Project Scope Statement details the project scope, including the project objectives, deliverables, boundaries, and constraints. It provides a common understanding of the project scope among stakeholders.
- Source: PMBOK 6th Edition, p. 154; PMBOK 7th Edition, p. 246

4.18 Project Team Assignments:
Project Team Assignments document the roles and responsibilities of project team members, including their specific tasks and deliverables. It ensures that everyone knows their assignments and expectations.
- Source: PMBOK 6th Edition, p. 101

4.19 Quality Control Measurements:
Quality Control Measurements are documented results of control quality activities. They include data on quality performance, identifying any deviations from quality standards, and provide a basis for corrective actions.
- Source: PMBOK 6th Edition, p. 124

4.20 Quality Metrics:
Quality Metrics specify the criteria used to measure project and product quality. They are quantifiable measures that help determine whether quality standards and requirements are being met.
- Source: PMBOK 6th Edition, p. 291; PMBOK 7th Edition, p. 246

4.21 Quality Report:
The Quality Report provides information on quality performance and trends. It includes data on quality metrics, quality management issues, recommendations for improvement, and corrective actions taken.
- Source: PMBOK 6th Edition, p. 108; PMBOK 7th Edition, p. 246

4.22 Requirements Documentation:
Requirements Documentation captures the needs and expectations of stakeholders for the project deliverables. It includes functional and non-functional requirements, business needs, and technical specifications.
- Source: PMBOK 6th Edition, p. 97; PMBOK 7th Edition, p. 192

4.23 Requirements Traceability Matrix:
The Requirements Traceability Matrix links requirements to their origin and tracks them throughout the project lifecycle. It ensures that all requirements are addressed and provides a means to manage changes to the requirements.
- Source: PMBOK 6th Edition, p. 93; PMBOK 7th Edition, p. 189

4.24 Resource Breakdown Structure:
The Resource Breakdown Structure is a hierarchical representation of resources by category and type. It organizes resources such as personnel, equipment, and materials needed for the project.
- Source: PMBOK 6th Edition, p. 101; PMBOK 7th Edition, p. 187

4.25 Resource Calendars:

Resource Calendars identify the working days and shifts when each specific resource is available. They help in planning and scheduling resource assignments, ensuring that resources are utilized effectively.
- Source: PMBOK 6th Edition, p. 199

4.26 Resource Requirements:
Resource Requirements detail the types and quantities of resources required for each activity in a work package. They provide the basis for estimating resource needs and availability throughout the project.
- Source: PMBOK 6th Edition, p. 199, 208

4.27 Risk Register:
The Risk Register is a project document that contains all identified risks, including their status and results of risk analysis and risk response planning. It typically includes risk descriptions, categories, causes, probability and impact, risk owners, risk response strategies, and contingency plans.
- Source: PMBOK 6th Edition, p. 208; PMBOK 7th Edition, p. 185

4.28 Risk Report:
The Risk Report provides a summary of risk management efforts and outcomes. It includes information on sources of overall project risk, summary information on identified individual project risks, risk response actions, and their effectiveness. The report is used to communicate risk status to stakeholders.
- Source: PMBOK 6th Edition, p. 93, 108; PMBOK 7th Edition, p. 190

4.29 Schedule Data:
Schedule Data includes information about the project schedule, such as activity attributes, assumptions, constraints, milestones, and resource requirements. It provides details needed to analyze the schedule and to produce schedule forecasts.
- Source: PMBOK 6th Edition, p. 220

4.30 Schedule Forecasts:
Schedule Forecasts are predictions of future project schedule performance based on current project information and trends. They help to determine if the project will meet its scheduled deadlines and can prompt corrective actions if necessary.
- Source: PMBOK 6th Edition, p. 108, 113; PMBOK 7th Edition, p. 249

4.31 Stakeholder Register:
The Stakeholder Register is a project document that lists all project stakeholders, their interests, influence, and impact on the project. It includes information such as stakeholder identification, assessment information, and stakeholder classification.
- Source: PMBOK 6th Edition, p. 97, 101; PMBOK 7th Edition, p. 185

4.32 Team Charter:
The Team Charter is a document that defines the team's values, agreements, and operational guidelines. It includes the team's purpose, roles and responsibilities, decision-making criteria, and conflict resolution processes. The charter helps to align team members and set expectations.
- Source: PMBOK 6th Edition, p. 319-320; PMBOK 7th Edition, p. 192, 251

4.33 Test and Evaluation Documents:
Test and Evaluation Documents outline the criteria for testing and evaluation of project deliverables. They include test plans, test scripts, test cases, and evaluation criteria to ensure deliverables meet the required standards and are fit for use.

- Source: PMBOK 6th Edition, p. 296, 300

 Project Artifacts: Other

5.1 Project Charter:
The Project Charter is a formal document that authorizes the project, providing the project manager with the authority to apply organizational resources to project activities. It includes the project's purpose, objectives, high-level requirements, assumptions, constraints, and the names of key stakeholders.
- Source: PMBOK 6th Edition, p. 34, 75, 77; PMBOK 7th Edition, p. 17, 184

 4 Types of PDM Relationships

6.1 Start-to-Finish (S/F):
In a Start-to-Finish relationship, the predecessor activity must start before the successor activity can finish. This type of relationship is rare and typically used in just-in-time scheduling.
- Source: PMBOK 6th Edition, p. 189-190

6.2 Finish-to-Finish (F/F):
In a Finish-to-Finish relationship, the predecessor activity must finish before the successor activity can finish. This relationship ensures that both activities are completed in sequence.
- Source: PMBOK 6th Edition, p. 189-190

6.3 Finish-to-Start (F/S):
In a Finish-to-Start relationship, the predecessor activity must finish before the successor activity can start. This is the most common type of relationship in project scheduling.
- Source: PMBOK 6th Edition, p. 189-190

6.4 Start-to-Start (S/S):
In a Start-to-Start relationship, the predecessor activity must start before the successor activity can start. This type of relationship is used when two activities can begin simultaneously or one shortly after the other.
- Source: PMBOK 6th Edition, p. 189-190

 4 Dependencies

7.1 Mandatory Internal:
Mandatory Internal dependencies are those that are legally or contractually required or inherent in the nature of the work. They often involve physical limitations, such as the need to construct the foundation of a building before erecting the walls.
- Source: PMBOK 6th Edition, p. 191-192

7.2 Mandatory External:
Mandatory External dependencies involve relationships between project activities and external factors outside the project team's control, such as regulatory requirements, permits, or delivery schedules from vendors.
- Source: PMBOK 6th Edition, p. 191-192

7.3 Discretionary Internal:
Discretionary Internal dependencies, also known as preferred or soft logic, are based on best practices, guidelines, or project team preferences. These dependencies can be adjusted if necessary to optimize project schedules.
- Source: PMBOK 6th Edition, p. 191-192

7.4 Discretionary External:
Discretionary External dependencies are based on external stakeholder preferences or project team decisions. These dependencies can be modified to enhance project performance if other constraints are met.
- Source: PMBOK 6th Edition, p. 191-192

 Cost of Quality Terms: Cost of Conformance: Preventive Costs

8.1 Training:
Training costs are incurred to educate project team members on quality standards, processes, and practices. This helps to ensure that deliverables meet quality requirements and reduces the likelihood of defects.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

8.2 Document Process:
Document process costs are associated with documenting quality processes and procedures. This includes the development of manuals, procedures, and guidelines to ensure consistent quality performance.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

8.3 Equipment:
Equipment costs are associated with purchasing and maintaining equipment necessary for ensuring quality. This includes testing equipment, quality control instruments, and any other tools required to perform quality assurance and control activities.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

8.4 Time to Do It Right:
Time to do it right costs refer to the additional time invested to perform tasks correctly the first time. This includes following quality processes, conducting thorough inspections, and ensuring compliance with quality standards.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

 Cost of Quality Terms: Cost of Conformance: Appraisal Costs

9.1 Testing:
Testing costs are associated with activities that assess the quality of project deliverables. This includes functional, performance, and acceptance testing to ensure that products meet specified requirements.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

9.2 Destructive Testing Loss:
Destructive Testing Loss costs refer to the expenses incurred when products are destroyed during testing to evaluate their quality. This is often necessary to ensure that products meet safety and performance standards.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

9.3 Inspections:
Inspection costs are associated with examining and measuring project deliverables to ensure they meet quality standards. This includes routine inspections, audits, and evaluations performed during the project lifecycle.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

 Cost of Quality Terms: Cost of Nonconformance: Internal Failure Costs

10.1 Rework:
Rework costs are incurred when deliverables fail to meet quality standards and must be corrected. This includes the costs of additional labor, materials, and time required to fix defects before the product is delivered to the customer.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

10.2 Scrap:
Scrap costs refer to the expenses associated with discarded materials or products that cannot be used or sold due to quality defects. This represents a loss of investment in materials, labor, and production costs.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

Cost of Quality Terms: Cost of Nonconformance: External Failure Costs

11.1 Liabilities:
Liabilities are costs incurred due to the failure to meet quality standards after the product has been delivered to the customer. This includes legal fees, settlements, and compensation for damages caused by defective products. These costs can be substantial and impact the organization's reputation and financial standing.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

11.2 Warranty Work:
Warranty Work costs are associated with repairing or replacing defective products after they have been delivered to the customer. These costs are incurred under the terms of a warranty or guarantee and can include labor, materials, and logistics expenses.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

11.3 Loss of Business:
Loss of Business costs refer to the revenue lost due to a damaged reputation or customer dissatisfaction resulting from poor quality products or services. This can lead to a decrease in sales, market share, and long-term profitability.
- Source: PMBOK 6th Edition, p. 282-283; PMBOK 7th Edition, p. 88-89

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12.1 Scatter Diagram:
A Scatter Diagram is a graphical representation that shows the relationship between two variables. It is used to identify potential correlations and patterns, helping to determine whether changes in one variable are associated with changes in another.
- Source: PMBOK 6th Edition, p. 293, 304; PMBOK 7th Edition, p. 189

12.2 Pareto Chart:
A Pareto Chart is a type of bar chart that represents the frequency or impact of problems or causes in descending order. It helps to identify the most significant factors contributing to a problem, following the Pareto Principle (80/20 rule).
- Source: PMBOK 6th Edition, Slide 94; [Pareto Chart Information](https://pmstudycircle.com/pareto-chart/)

12.3 Control Chart:
A Control Chart is a graphical tool used to monitor the stability of a process over time. It shows the performance of a process and detects any variations from the norm, allowing for corrective actions to be taken before defects occur.
- Source: PMBOK 6th Edition, p. 304; PMBOK 7th Edition, p. 237

12.4 Histogram:
A Histogram is a bar graph that shows the frequency distribution of a set of data. It helps to understand the distribution and variability of data, identifying patterns and trends that can inform decision-making.
- Source: PMBOK 6th Edition, p. 293, 304; PMBOK 7th Edition, p. 189, 241

12.5 Stratification:
Stratification is a technique used to separate data into distinct layers or categories to identify patterns within the data. This method helps to analyze and understand the impact of different factors on a process or outcome.
- Source: [Stratification Information](https://www.whatissixsigma.net/stratification/)

12.6 Fishbone Diagram:
A Fishbone Diagram, also known as an Ishikawa or cause-and-effect diagram, is used to identify and analyze the root causes of a problem. It visually maps out the various causes contributing to a specific effect, helping teams to brainstorm and organize potential solutions.
- Source: PMBOK 6th Edition, p. 293, 304; PMBOK 7th Edition, p. 188

12.7 Check Sheet:
A Check Sheet is a simple, structured form used to collect and analyze data in a systematic manner. It helps to organize information and identify patterns or trends in data collection, making it easier to analyze and improve processes.
- Source: PMBOK 6th Edition, p. 302; PMBOK 7th Edition, p. 175

7 Kinds of Waste (Lean Six Sigma)

13.1 Transportation:
Transportation waste refers to the unnecessary movement of materials or products within a process. It can lead to delays, increased costs, and potential damage to goods. Reducing transportation waste involves streamlining workflows and minimizing the distance materials travel.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

13.2 Inventory:
Inventory waste is the excess storage of raw materials, work-in-progress, or finished goods. It ties up capital and increases the risk of obsolescence, damage, and storage costs. Managing inventory levels and implementing just-in-time practices can help reduce this waste.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

13.3 Motion:
Motion waste involves unnecessary movement by people or machines that do not add value to the process. This can lead to inefficiencies, increased wear and tear, and worker fatigue. Streamlining workflows and optimizing workspace layout can help minimize motion waste.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

13.4 Waiting:
Waiting waste occurs when there are delays in the production process, such as waiting for materials, equipment, or information. This can lead to idle time and reduced productivity. Identifying and addressing bottlenecks can help reduce waiting waste.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

13.5 Overproduction:
Overproduction waste happens when more products are produced than needed or before they are needed. This leads to excess inventory and increased storage costs. Aligning production with demand and implementing pull systems can help reduce overproduction.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

13.6 Overprocessing:
Overprocessing waste involves performing more work or using more resources than necessary to meet customer requirements. This can include redundant steps, excessive quality checks, or unnecessary features. Simplifying processes and focusing on value-added activities can help eliminate overprocessing.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

13.7 Defects:
Defects waste refers to products or services that do not meet quality standards and require rework or disposal. This leads to wasted materials, labor, and time. Implementing quality control measures and continuous improvement practices can help reduce defects.
- Source: [Lean Six Sigma Waste Information](https://www.ptc.com/en/blogs/iiot/7-wastes-of-lean-production)

 CMMI Levels

14.1 Level One Initial:
At Level One (Initial) of the Capability Maturity Model Integration (CMMI), processes are typically ad hoc and chaotic. The organization lacks stable processes, and success depends on individual efforts rather than on institutionalized processes.
- Source: [CMMI Information](https://www.bmc.com/blogs/cmmi-capability-maturity-model-integration/)

14.2 Level Two Managed:
At Level Two (Managed), the organization has basic project management processes in place to track cost, schedule, and functionality. Processes are planned and executed in accordance with policy; projects employ skilled people and have adequate resources.
- Source: [CMMI Information](https://www.bmc.com/blogs/cmmi-capability-maturity-model-integration/)

14.3 Level Three Defined:
At Level Three (Defined), the organization has standardized and documented processes for project and organizational management. Processes are established and improved over time, and projects benefit from established best practices.
- Source: [CMMI Information](https://www.bmc.com/blogs/cmmi-capability-maturity-model-integration/)

14.4 Level Four Quantitatively Managed:
At Level Four (Quantitatively Managed), the organization uses quantitative techniques to manage process performance. Data is collected and analyzed to identify trends and predict future performance, leading to greater process stability and control.
- Source: [CMMI Information](https://www.bmc.com/blogs/cmmi-capability-maturity-model-integration/)

14.5 Level Five Optimizing:

At Level Five (Optimizing), the organization focuses on continuous process improvement. Processes are systematically managed and improved based on a quantitative understanding of business objectives and performance needs. Innovative ideas and practices are encouraged and implemented.
- Source: [CMMI Information](https://www.bmc.com/blogs/cmmi-capability-maturity-model-integration/)

Risk Terms

15.1 Emerging Risk:
Emerging Risk refers to new or unforeseen risks that have the potential to impact the project significantly. These risks are often identified through environmental scanning, industry trends, and expert judgment.
- Source: [Emerging Risk Information](https://ocro.stanford.edu/erm/key-definitions/definition-emerging-risk)

15.3 Risk Breakdown Structure (RBS):
The Risk Breakdown Structure (RBS) is a hierarchical framework that categorizes project risks, organizing them by sources of risk. This structure helps to systematically identify, analyze, and manage risks by breaking them down into more manageable components.
- Source: PMBOK 6th Edition, p. 405; PMBOK 7th Edition, p. 187

15.4 Bubble Chart:
A Bubble Chart is a graphical tool used to represent data involving three dimensions. In risk management, it is often used to visualize the severity, likelihood, and impact of risks, with bubble size indicating the magnitude of the risk.
- Source: PMBOK 6th Edition, p. 425-426

15.5 Tornado Diagram:
A Tornado Diagram is a type of sensitivity analysis chart that shows the impact of various risks on project outcomes. It displays the range of potential outcomes, with the most significant risks listed at the top, forming a funnel or "tornado" shape.
- Source: PMBOK 6th Edition, p. 434

15.6 Expected Monetary Value (EMV):
Expected Monetary Value (EMV) is a statistical technique used to quantify risks in terms of their potential financial impact. It involves calculating the average outcome when the future includes scenarios that may or may not happen. EMV is calculated by multiplying the probability of each risk by its potential impact and summing the results.
- Source: PMBOK 6th Edition, p. 435; PMBOK 7th Edition, p. 176

15.7 Watch List:
A Watch List is a component of the risk register that includes low-priority risks. These risks are documented and monitored periodically to ensure that they do not escalate or require active management.
- Source: PMBOK 6th Edition, p. 423

15.8 Probability and Impact Matrix:
The Probability and Impact Matrix is a tool used to evaluate and prioritize risks based on their likelihood of occurrence and potential impact on project objectives. It helps in identifying which risks require immediate attention and which can be monitored.
- Source: PMBOK 6th Edition, p. 408; PMBOK 7th Edition, p. 176

15.9 Risk Tolerance:

Risk Tolerance refers to the degree of variability in outcomes that stakeholders are willing to accept in pursuit of project objectives. It helps to determine how much risk the project can bear and influences risk management strategies.
- Source: PMBOK 7th Edition, p. 43; [Risk Tolerance Information](https://project-management-knowledge.com/definitions/r/risk-tolerance/)

15.10 Risk Appetite:
Risk Appetite is the level of risk that an organization is willing to accept in order to achieve its objectives. It reflects the organization's attitude towards risk-taking and guides decision-making processes.
- Source: PMBOK 7th Edition, p. 720-721; [Risk Appetite Information](https://www.projectcubicle.com/risk-appetite-definition-importance-examples/)

15.11 Risk Threshold:
Risk Threshold is the specific point at which a risk becomes unacceptable to an organization or project. It is the level of risk exposure that triggers a response, such as implementing risk mitigation strategies or contingency plans.
- Source: PMBOK 7th Edition, p. 720-721; [Risk Threshold Information](https://www.projectcubicle.com/risk-threshold-definition-importance-examples/)

 Risk Strategies for Threats

16.1 Escalate:
Escalating a risk involves moving the responsibility for managing the risk to a higher level within the organization, typically when the risk is outside the project manager's control or exceeds their authority.
- Source: PMBOK 6th Edition, p. 444, 720; PMBOK 7th Edition, p. 123

16.2 Avoid:
Risk Avoidance involves changing the project plan to eliminate the risk entirely or to protect the project objectives from its impact. This might include removing the risky activities or changing the scope or schedule.
- Source: PMBOK 6th Edition, p. 444, 720; PMBOK 7th Edition, p. 123

16.3 Transfer:
Risk Transfer involves shifting the impact of a risk to a third party, such as through insurance, contracts, or outsourcing. The responsibility for managing the risk is transferred, but the risk does not disappear.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 123

16.4 Mitigate:
Risk Mitigation involves taking actions to reduce the probability or impact of a risk to an acceptable level. This can include implementing preventive measures, increasing redundancies, or improving processes.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 123

16.5 Accept:
Risk Acceptance involves acknowledging the risk and deciding to take no action unless the risk occurs. This strategy is often used for low-priority risks where the cost of mitigation is higher than the potential impact.
- Source: PMBOK 6th Edition, p. 444, 720; PMBOK 7th Edition, p. 123

 Risk Strategies for Opportunities

17.1 Escalate:
Escalating an opportunity involves moving the responsibility for capturing the opportunity to a higher level within the organization when it is outside the project manager's control or exceeds their authority.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 125

17.2 Exploit:
Exploiting an opportunity involves taking actions to ensure that the opportunity is realized. This might include allocating additional resources, changing the project plan, or prioritizing the opportunity to ensure its capture.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 125

17.3 Share:
Sharing an opportunity involves partnering with another party who can help to realize the opportunity, such as through joint ventures, alliances, or partnerships. This strategy leverages the strengths of both parties to capture the opportunity.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 125

17.4 Enhance:
Enhancing an opportunity involves taking actions to increase the probability or impact of the opportunity. This can include investing additional resources, improving processes, or increasing collaboration to maximize the benefits.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 125

17.5 Accept:
Opportunity Acceptance involves acknowledging the opportunity and deciding to take no action unless it occurs. This strategy is used when the cost of pursuing the opportunity is higher than the potential benefit.
- Source: PMBOK 6th Edition, p. 444, 721; PMBOK 7th Edition, p. 125

Contracting Terms

18.1 Centralized Purchasing:
Centralized Purchasing is an organizational structure where a single department or group handles all procurement activities. This approach can lead to economies of scale, standardization of processes, and better control over purchasing activities.
- Source: PMBOK 6th Edition, p. 462

18.2 Decentralized Purchasing:
Decentralized Purchasing is an organizational structure where individual departments or units handle their own procurement activities. This approach can lead to more flexibility, faster response times, and better alignment with specific departmental needs.
- Source: PMBOK 6th Edition, p. 462

18.3 Sole Source:
Sole Source procurement involves selecting a vendor without a competitive bidding process because the vendor is the only source available to meet the project's requirements. This might be due to unique capabilities, proprietary products, or a lack of alternatives.
- Source: PMBOK 6th Edition, p. 474

18.4 Tender:
A Tender is a formal and structured invitation to suppliers to submit bids to provide goods or services. The tender process aims to ensure transparency, fairness, and competitive pricing in procurement.

18.5 Privity:
Privity refers to the legal relationship that exists between parties involved in a contract. It signifies that only the parties to the contract have the rights and obligations under that contract.
- Source: PMBOK 6th Edition, Slide 242

18.6 SLA (Service Level Agreement):
A Service Level Agreement (SLA) is a contract between a service provider and a client that defines the level of service expected. SLAs specify the service standards, performance metrics, responsibilities, and remedies in case of non-compliance.
- Source: PMBOK 6th Edition, p. 78, 459, 723; PMBOK 7th Edition, p. 191

Fixed Price Contract Types

19.1 Firm Fixed Price (FFP):
A Firm Fixed Price (FFP) contract provides a fixed price for a well-defined product or service. The seller assumes the risk of cost overruns, making this type of contract beneficial for the buyer when the scope is clear and stable.
- Source: PMBOK 6th Edition, p. 471, 707; PMBOK 7th Edition, p. 191, 240

19.2 Fixed Price Incentive Fee (FPIF):
A Fixed Price Incentive Fee (FPIF) contract includes a fixed price plus an incentive fee based on performance targets. The incentive fee is tied to achieving specific performance criteria, such as cost savings or early completion, encouraging the seller to perform efficiently.
- Source: PMBOK 6th Edition, p. 471, 707; PMBOK 7th Edition, p. 191, 240

19.3 Fixed Price with Economic Price Adjustment (FP-EPA):
A Fixed Price with Economic Price Adjustment (FP-EPA) contract provides a fixed price with provisions for adjustments based on changes in economic conditions, such as inflation or commodity prices. This type of contract is useful for long-term projects where economic conditions may fluctuate.
- Source: PMBOK 6th Edition, p. 471, 707; PMBOK 7th Edition, p. 191, 240

Cost-Reimbursable Contract Types

20.1 Cost Plus Fixed Fee (CPFF):
A Cost Plus Fixed Fee (CPFF) contract reimburses the seller for allowable costs incurred during the performance of the contract, plus a fixed fee representing the seller's profit. The fixed fee does not change with the actual cost, providing stability for the seller.
- Source: PMBOK 6th Edition, p. 472, 703; PMBOK 7th Edition, p. 191, 238

20.2 Cost Plus Incentive Fee (CPIF):
A Cost Plus Incentive Fee (CPIF) contract reimburses the seller for allowable costs and includes an incentive fee based on achieving performance targets. The incentive fee is tied to cost savings or performance criteria, encouraging efficiency and effectiveness.
- Source: PMBOK 6th Edition, p. 472, 703; PMBOK 7th Edition, p. 191, 238

20.3 Cost Plus Award Fee (CPAF):
A Cost Plus Award Fee (CPAF) contract reimburses the seller for allowable costs and includes an award fee based on the buyer's subjective evaluation of the seller's performance. The award fee provides an additional incentive for superior performance.
- Source: PMBOK 6th Edition, p. 472, 703; PMBOK 7th Edition, p. 191, 238

Time & Materials Contract

21.1 Time and Materials (T&M):
A Time and Materials (T&M) contract is a hybrid of fixed-price and cost-reimbursable contracts. It pays the seller for the time spent and materials used in performing the work. T&M contracts are often used when the scope of work is not well-defined and flexibility is needed.
- Source: PMBOK 6th Edition, p. 472, 724; PMBOK 7th Edition, p. 191, 78

Actions

22.1 Corrective Action:
Corrective Action involves steps taken to bring future project performance in line with the project management plan. These actions address issues that have occurred to prevent them from happening again, ensuring that project objectives are met.
- Source: PMBOK 6th Edition, p. 96, 703; PMBOK 7th Edition, p. 190

22.2 Prevention:
Prevention involves proactive steps to avoid potential project issues and risks before they occur. This can include process improvements, training, and implementing controls to reduce the likelihood of problems arising.
- Source: PMBOK 6th Edition, p. 96, 112, 274, 714; PMBOK 7th Edition, p. 48-49, 88

Work Performance Summary

23.1 Work Performance Data:
Work Performance Data consists of raw observations and measurements identified during activities performed to carry out the project work. It includes information such as the status of deliverables, schedule progress, and costs incurred.
- Source: PMBOK 6th Edition, p. 26, 95, 169, 726; PMBOK 7th Edition, p. 253

23.2 Work Performance Information:
Work Performance Information is the analyzed data that provides a context for the work performance data. It includes information on the status of project deliverables, scope, schedule, cost, and quality, allowing for informed decision-making.
- Source: PMBOK 6th Edition, p. 26, 109, 112, 706, 726; PMBOK 7th Edition, p. 11

23.3 Work Performance Reports:
Work Performance Reports are the physical or electronic representations of work performance information compiled in project documents. These reports provide insights into project performance and are used to generate decisions, actions, or awareness.
- Source: PMBOK 6th Edition, p. 26, 112, 268, 347, 726

Tuckman Model

24.1 Forming:
Forming is the initial stage of team development where team members get to know each other and understand the project's goals and objectives. During this stage, roles and responsibilities are clarified, and initial team cohesion begins to form.
- Source: PMBOK 6th Edition, p. 338; PMBOK 7th Edition, p. 166

24.2 Storming:

Storming is the stage of team development where team members experience conflicts and differences as they assert their opinions and perspectives. This stage can be challenging as the team works through disagreements and establishes norms.
- Source: PMBOK 6th Edition, p. 338; PMBOK 7th Edition, p. 166

24.3 Norming:
Norming is the stage of team development where team members resolve their conflicts and establish collaborative working relationships. They develop mutual respect and understand each other's strengths and weaknesses, leading to increased cohesion and productivity.
- Source: PMBOK 6th Edition, p. 338; PMBOK 7th Edition, p. 166

24.4 Performing:
Performing is the stage of team development where the team operates at its highest level of efficiency and effectiveness. Team members are fully engaged, motivated, and capable of achieving project goals with minimal supervision.
- Source: PMBOK 6th Edition, p. 338; PMBOK 7th Edition, p. 166

24.5 Adjourning:
Adjourning is the final stage of team development where the project or phase is completed, and the team disbands. This stage involves reflection, celebration of achievements, and transition to new projects or roles.
- Source: PMBOK 6th Edition, p. 338; PMBOK 7th Edition, p. 166

Emotional Intelligence Personal Skills

25.1 Self-Awareness:
Self-Awareness is the ability to recognize and understand one's emotions, strengths, weaknesses, values, and drivers. It involves being aware of the impact of one's behavior on others and using this awareness to manage interactions effectively.
- Source: PMBOK 6th Edition, p. 310; PMBOK 7th Edition, p. 26-27; Agile Practice Guide, p. 34

25.2 Self-Regulation:
Self-Regulation is the ability to control or redirect disruptive emotions and impulses. It involves thinking before acting, staying calm under pressure, and maintaining professionalism in challenging situations.
- Source: PMBOK 6th Edition, p. 310; PMBOK 7th Edition, p. 26; Agile Practice Guide, p. 36

25.3 Motivation:
Motivation is the drive to achieve goals and objectives for personal satisfaction and professional growth. It involves setting ambitious but attainable goals, being committed to continuous improvement, and maintaining enthusiasm and perseverance.
- Source: PMBOK 6th Edition, p. 197, 341; PMBOK 7th Edition, p. 24-25

Emotional Intelligence Interpersonal Skills

26.1 Social Skills:
Social Skills refer to the ability to build and manage relationships effectively. This includes communication, conflict resolution, collaboration, and leadership, enabling individuals to work well with others and achieve common goals.
- Source: PMBOK 7th Edition, p. 25, 27

26.2 Empathy:

Empathy is the ability to understand and share the feelings of others. It involves listening actively, being attentive to non-verbal cues, and demonstrating compassion and understanding towards colleagues and stakeholders.
- Source: PMBOK 7th Edition, p. 26-27, 40

 Active Listening

27.1 Reflective Listening:
Reflective Listening involves mirroring the speaker's message to ensure understanding. This includes paraphrasing and summarizing what the speaker has said to confirm accuracy and show empathy.
- Source: PMBOK 6th Edition, p. 386 (general active listening)
Sure, let's continue with the robust definitions and citations for the remaining terms:

27.2 Attentive Listening:
Attentive Listening involves giving full attention to the speaker, avoiding distractions, and providing feedback through nodding or other affirmations. It ensures that the listener fully comprehends the message being conveyed.
- Source: PMBOK 6th Edition, p. 386 (general active listening)

27.3 Following:
Following involves providing the speaker with appropriate feedback to show that their message is being understood and followed. It includes techniques like summarizing, questioning, and clarifying to ensure accurate communication.
- Source: PMBOK 6th Edition, p. 386 (general active listening)

 Conflict Management

28.1 Withdraw/Avoid:
Withdrawing or Avoiding involves retreating from an actual or potential conflict situation. This strategy is used when the conflict is trivial, when more information is needed, or when others can resolve the conflict more effectively.
- Source: PMBOK 6th Edition, p. 249; PMBOK 7th Edition, p. 169

28.2 Smooth/Accommodate:
Smoothing or Accommodating involves emphasizing areas of agreement rather than areas of difference. This strategy is used to maintain harmony and satisfy the concerns of the other party, often at one's own expense.
- Source: PMBOK 6th Edition, p. 249; PMBOK 7th Edition, p. 169

28.3 Force/Direct:
Forcing or Directing involves pushing one's viewpoint at the expense of others. This strategy is used when quick, decisive action is needed, such as in emergencies or when enforcing rules.
- Source: PMBOK 6th Edition, p. 249; PMBOK 7th Edition, p. 169

28.4 Compromise/Reconcile:
Compromising or Reconciling involves finding a solution that partially satisfies all parties. This strategy is used when both sides hold equally important goals and seeks a middle ground.
- Source: PMBOK 6th Edition, p. 249; PMBOK 7th Edition, p. 168

28.5 Collaborate/Problem Solve:
Collaborating or Problem Solving involves working together to find a mutually beneficial solution. This strategy is used when the concerns of both parties are too important to be compromised and requires a win-win outcome.

- Source: PMBOK 6th Edition, p. 249; PMBOK 7th Edition, p. 168

McKinsey 7-S Model

29.1 Strategy:
Strategy refers to the plan devised to maintain and build competitive advantage over the competition. It outlines how an organization will achieve its goals and objectives and guides decision-making.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

29.2 Structure:
Structure refers to the way an organization is arranged, including the roles, responsibilities, and reporting relationships. It determines how the organization operates and aligns with its strategy.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

29.3 Systems:
Systems refer to the formal and informal procedures used to manage the organization, including business processes and information systems. They ensure that the organization operates efficiently and effectively.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

29.4 Shared Values:
Shared Values are the core beliefs and principles that guide an organization's actions and behaviors. They form the foundation of the organizational culture and influence decision-making at all levels.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

29.5 Style:
Style refers to the leadership approach and management style within the organization. It encompasses how leaders interact with employees, how decisions are made, and how work is conducted.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

29.6 Staff:
Staff refers to the organization's people, including their skills, capabilities, and attitudes. It covers recruitment, development, and retention of employees to ensure the right talent is in place to achieve organizational goals.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

29.7 Skills:
Skills refer to the abilities and competencies of the organization's employees. This includes technical skills, soft skills, and overall expertise required to perform tasks and achieve objectives.
- Source: [McKinsey 7-S Model Information](https://www.mindtools.com/pages/article/newTED_02.htm)

Agile Types

30.1 Iterative Agile:
Iterative Agile is an approach where the project is divided into small segments called iterations. Each iteration involves a cycle of planning, executing, and evaluating, allowing for frequent reassessment and adaptation of the project based on feedback.
- Source: PMBOK 6th Edition, p. 709; PMBOK 7th Edition, p. 35-36; Agile Practice Guide, p. 24-25, 53

30.2 Flow-based Agile:
Flow-based Agile focuses on the continuous delivery of work by limiting the amount of work in progress (WIP) and using flow metrics to measure progress. It emphasizes steady, incremental progress and responsiveness to changes.
- Source: PMBOK 6th Edition, p. 45, 109; PMBOK 7th Edition, p. 24-25, 54

 Agile Roles

31.1 Team Facilitator (Scrum Master):
The Team Facilitator, also known as the Scrum Master in Scrum methodology, is responsible for ensuring that the team follows agile practices and removes any obstacles to progress. They act as a coach and servant leader, helping the team to work effectively and efficiently.
- Source: PMBOK 6th Edition, p. 17; PMBOK 7th Edition, p. 41, 101

31.2 Development Team (Cross-functional Team):
The Development Team consists of professionals who work together to deliver the product increment. They are cross-functional, meaning they have all the skills necessary to create the product, and they are self-organizing, deciding how best to accomplish their work.
- Source: PMBOK 6th Edition, p. 145; PMBOK 7th Edition, p. 14, 38, 244

31.3 Product Owner:
The Product Owner is responsible for defining the features of the product and ensuring that the team delivers value to the business. They manage the product backlog, prioritize work items, and make decisions about the product to maximize ROI.
- Source: PMBOK 6th Edition, p. 216; PMBOK 7th Edition, p. 76, 245

31.4 Agile Coach:
The Agile Coach is an experienced agile practitioner who guides and supports teams and organizations in adopting and improving agile practices. They help to develop agile skills, foster an agile mindset, and drive continuous improvement.
- Source: PMBOK 6th Edition, p. 41, 150

 Backlog / Backlog Terms

32.1 Product Backlog:
The Product Backlog is an ordered list of everything that is known to be needed in the product. It is dynamic, constantly evolving to incorporate changes and new information. The Product Owner is responsible for the Product Backlog.
- Source: PMBOK 6th Edition, p. 131; PMBOK 7th Edition, p. 76, 185

32.2 Product Backlog Increment:
A Product Backlog Increment is the sum of all the Product Backlog items completed during a Sprint and the value of the increments of all previous Sprints. It must be in a useable condition regardless of whether the Product Owner decides to release it.
- Source: PMBOK 6th Edition, p. 177; PMBOK 7th Edition, p. 34

32.3 Product Backlog Item (PBI):

A Product Backlog Item (PBI) is an individual item in the Product Backlog that represents a feature, enhancement, or bug fix. Each PBI is detailed enough to enable estimation and prioritization.
- Source: [PBI Information](https://www.agile-academy.com/en/agile-dictionary/product-backlog-item-pbi/)

32.4 Product Backlog Refinement (PBR):
Product Backlog Refinement (PBR) is the ongoing process of reviewing and updating the Product Backlog. This includes adding detail, estimates, and order to the items in the Product Backlog to ensure that it remains relevant and accurate.
- Source: PMBOK 6th Edition, p. 179, 234; PMBOK 7th Edition, p. 52

32.5 Iteration (Sprint) Backlog:
The Iteration Backlog is a set of Product Backlog items selected for the current iteration, plus a plan for delivering the product increment and achieving the iteration goal. It represents a subset of the Product Backlog.
- Source: PMBOK 6th Edition, Slide 167

32.6 I.N.V.E.S.T:
INVEST is an acronym that stands for Independent, Negotiable, Valuable, Estimable, Small, and Testable. These criteria help to ensure that Product Backlog Items (PBIs) are well-formed and useful for agile teams to work on.
- Source: [INVEST Information](https://www.agilealliance.org/glossary/invest/)

32.7 D.E.E.P:
DEEP is an acronym that stands for Detailed appropriately, Emergent, Estimated, and Prioritized. It describes the characteristics of a well-maintained Product Backlog.
- Source: [DEEP Information](https://www.visual-paradigm.com/scrum/what-is-deep-in-agile-product-backlog/)

32.8 Emergent:
Emergent refers to the ability of the Product Backlog to evolve as more is learned about the product and the environment. New requirements, improvements, and adjustments are continuously added to keep the backlog current and relevant.
- Source: PMBOK 6th Edition, p. 68, 399; PMBOK 7th Edition, p. 165

32.9 Backlog Preparation:
Backlog Preparation involves creating and refining the Product Backlog, ensuring that it is detailed, accurate, and up-to-date. This process includes adding new items, refining existing ones, and prioritizing them according to their value and urgency.
- Source: PMBOK 6th Edition, p. 76, 185; PMBOK 7th Edition, p. 53

 Project/Product Breakdown

33.1 Project/Product Vision Statement (Project Overview Statement):
The Project/Product Vision Statement outlines the overall goal and purpose of the project or product. It provides a high-level description of what the project or product aims to achieve and serves as a guide for decision-making.
- Source: PMBOK 6th Edition, p. 216; PMBOK 7th Edition, p. 61; Agile Practice Guide, p. 49

33.2 Product Road Map:
The Product Road Map is a high-level visual summary that maps out the vision and direction of the product over time. It outlines the major goals and deliverables, providing a strategic guide for development.

- Source: PMBOK 6th Edition, p. 216; PMBOK 7th Edition, p. 61, 184, 248; Agile Practice Guide, p. 52

33.3 Theme:
A Theme is a collection of related features or user stories that represent a higher-level goal or focus area within the product development. Themes help to organize and prioritize work in a meaningful way.
- Source: PMBOK 7th Edition, p. 84

33.4 Epic:
An Epic is a large user story or feature that cannot be completed in a single iteration. It is broken down into smaller, manageable user stories or tasks that can be developed incrementally.
- Source: PMBOK 6th Edition, p. 160; PMBOK 7th Edition, p. 54, 84, 239

33.5 Feature (Product Scope):
A Feature is a distinct piece of functionality or capability in a product. It represents a specific requirement that delivers value to the end-user and is part of the overall product scope.
- Source: PMBOK 6th Edition, p. 131, 177, 216, 715; PMBOK 7th Edition, p. 5, 54; Agile Practice Guide, p. 23-24

33.6 User Story:
A User Story is a short, simple description of a feature or functionality from the perspective of the end-user. It captures the who, what, and why of a requirement and is written in a way that is understandable to both technical and non-technical stakeholders.
- Source: PMBOK 6th Edition, p. 146; PMBOK 7th Edition, p. 54, 84, 192; Agile Practice Guide, p. 77, 155

33.7 Task:
A Task is a specific piece of work required to complete a user story or feature. It is the smallest unit of work in agile project management, often detailed enough to be completed within a single iteration.
- Source: PMBOK 6th Edition, p. 216; PMBOK 7th Edition, p. 61, 109; Agile Practice Guide, p. 45

Agile Estimating/Sizing

34.1 Relative Estimating:
Relative Estimating involves comparing the size and complexity of a new user story or task with previously completed ones to estimate the effort required. This approach helps to quickly and consistently size work items without needing detailed analysis.
- Source: PMBOK 6th Edition, p. 57, 178; PMBOK 7th Edition, p. 67

34.2 Planning Poker:
Planning Poker is a consensus-based technique used to estimate the effort required for user stories. Team members use cards with numbers to represent their estimates, discussing differences until they reach a consensus.
- Source: PMBOK 6th Edition, p. 58; Agile Practice Guide, Slide 143

34.3 Ideal Days:
Ideal Days refer to the number of days it would take to complete a task or user story without any interruptions or distractions. This unit of measure helps teams to estimate work based on an ideal, focused effort.
- Source: [Ideal Days Information](https://www.7pace.com/blog/ideal-days-vs-story-points)

34.4 Ideal Hours:
Ideal Hours are similar to Ideal Days but broken down into hours. They represent the number of uninterrupted hours needed to complete a task or user story, providing a finer granularity for estimation.
- Source: [Ideal Hours Information](https://premieragile.com/story-points-vs-ideal-hours/)

34.5 Story Points:
Story Points are an abstract unit of measure used to estimate the relative effort required to complete a user story. They take into account factors such as complexity, risk, and uncertainty, helping teams to gauge the size of work items.
- Source: PMBOK 6th Edition, p. 95; PMBOK 7th Edition, p. 58, 178; Agile Practice Guide, p. 62, 66

34.6 Fibonacci Sequence:
The Fibonacci Sequence is a series of numbers used in agile estimating to represent story points. The sequence (0, 1, 2, 3, 5, 8, 13, etc.) reflects the increasing complexity and effort required for larger tasks, helping teams to estimate more effectively.
- Source: PMBOK 6th Edition, p. 178

34.7 T-Shirt Sizing:
T-Shirt Sizing is a quick and simple way to estimate the relative size of user stories or tasks. Items are categorized into sizes (e.g., XS, S, M, L, XL) based on their complexity and effort, allowing for easy comparison and prioritization.
- Source: PMBOK 6th Edition, p. 178

 Agile Voting Practices

35.1 Roman Voting:
Roman Voting is a simple decision-making technique where team members vote by showing thumbs up, thumbs down, or thumbs sideways to indicate their level of agreement or disagreement with a proposal.
- Source: PMBOK 6th Edition, p. 28; Agile Practice Guide, Slide 143

35.2 Fist of Five:
Fist of Five is a consensus-building technique where team members show their level of agreement with a decision by holding up zero to five fingers. The number of fingers indicates the strength of their support, helping to gauge overall team agreement.
- Source: PMBOK 6th Edition, p. 203; Agile Practice Guide, p. 28

35.3 Dot Voting:
Dot Voting is a prioritization technique where team members allocate a limited number of dots (votes) to various options. The options with the most dots are considered the highest priority, helping the team to make collective decisions.
- Source: Agile Practice Guide, Slide 143

35.4 Polling:
Polling involves asking team members to vote on a decision or option, typically using a show of hands or an electronic polling tool. This method helps to quickly gauge the team's opinion and make informed decisions.
- Source: Agile Practice Guide, Slide 143

 Agile Prioritization Techniques

36.1 MoSCoW Analysis:
MoSCoW Analysis is a prioritization technique that categorizes requirements into four groups: Must have, Should have, Could have, and Won't have. This helps teams to prioritize work based on its importance and urgency.
- Source: PMBOK 6th Edition, p. 181

36.2 Kano Model:
The Kano Model is a framework for prioritizing features based on customer satisfaction. It categorizes features into basic needs, performance needs, and delighters, helping teams to focus on features that will provide the most value to customers.
- Source: [Kano Model Information](https://www.productplan.com/glossary/kano-model/)

36.3 100 Points Method:
The 100 Points Method is a prioritization technique where team members are given 100 points to distribute among various options. The options with the most points are considered the highest priority, helping to align the team's efforts with the most important work.
- Source: [100 Points Method Information](https://www.visual-paradigm.com/scrum/scrum-100-points-method/)

36.4 Paired Comparison:
Paired Comparison is a prioritization technique where options are compared in pairs to determine which of each pair is more important. This process continues until all options have been compared, resulting in a prioritized list based on the frequency of preference.
- Source: [Paired Comparison Information](https://www.mindtools.com/pages/article/newTED_02.htm)

 Agile Practices

37.1 Iteration (Sprint) Review / Demo:
The Iteration Review, also known as Sprint Review or Demo, is a meeting held at the end of each iteration to review the work completed and gather feedback from stakeholders. The team demonstrates the product increment, discusses progress, and adapts the Product Backlog as needed.
- Source: PMBOK 6th Edition, p. 670; PMBOK 7th Edition, p. 179; Agile Practice Guide, p. 31, 100

37.2 Retrospective (Lessons Learned):
The Retrospective, also known as Lessons Learned, is a meeting held at the end of each iteration to reflect on the process and identify areas for improvement. The team discusses what went well, what didn't, and how to improve in the next iteration.
- Source: PMBOK 6th Edition, p. 224, 276, 305; PMBOK 7th Edition, p. 71, 127; Agile Practice Guide, p. 50-51

37.3 Daily Standup (Daily Scrum):
The Daily Standup, or Daily Scrum, is a short, daily meeting where team members discuss progress, plans for the day, and any impediments they are facing. This meeting helps to synchronize the team's work and ensure everyone is aligned.
- Source: PMBOK 6th Edition, p. 364; PMBOK 7th Edition, p. 127, 179; Agile Practice Guide, p. 151

37.4 Spike (timeboxed research or experiment):
A Spike is a timeboxed research or experimentation task used to gather information or explore potential solutions for a complex problem. Spikes help the team to reduce uncertainty and make informed decisions about future work.

- Source: PMBOK 6th Edition, p. 56; Agile Practice Guide, Slide 24

37.5 Ceremony:
Ceremonies are formalized events or meetings in agile methodologies, such as Daily Standups, Sprint Reviews, Retrospectives, and Sprint Planning. They provide structure and routine to the agile process, ensuring regular communication and feedback.
- Source: PMBOK 6th Edition, p. 50-56; Agile Practice Guide, Slide 24

37.6 Project Retrospective:
A Project Retrospective is a comprehensive review of the entire project, conducted at the end of the project or major phase. It involves analyzing what went well, what didn't, and identifying lessons learned to improve future projects.
- Source: Agile Practice Guide, Slide 24

Agile Scheduling/Planning Tools

38.1 Iteration Burn Down Chart:
An Iteration Burn Down Chart is a graphical representation of the work remaining versus time in an iteration. It shows the team's progress towards completing the work planned for the iteration, helping to identify any deviations from the plan.
- Source: PMBOK 6th Edition, p. 226; PMBOK 7th Edition, p. 108, 188; Agile Practice Guide, p. 62, 150

38.2 Iteration Burn Up Chart:
An Iteration Burn Up Chart is a graphical representation that shows the amount of work completed over time. It highlights the progress made towards achieving the iteration goals and can show scope changes during the iteration.
- Source: PMBOK 6th Edition, p. 108, 109; Agile Practice Guide, p. 63, 150

38.3 Scrum/Task/Kanban Board:
A Scrum/Task/Kanban Board is a visual tool used to manage and track the progress of tasks or user stories. It typically includes columns for different stages of work (e.g., To Do, In Progress, Done) and helps teams visualize workflow and identify bottlenecks.
- Source: PMBOK 6th Edition, p. 109, 241; PMBOK 7th Edition, p. 65, 84, 105; Agile Practice Guide, Slide 184

38.4 Information Radiator:
An Information Radiator is a large, highly visible display that shows critical project information to the entire team. It includes charts, graphs, and other visual aids that provide real-time updates on project status and progress.
- Source: PMBOK 6th Edition, p. 671; PMBOK 7th Edition, p. 108; Agile Practice Guide, p. 102, 152

38.5 Velocity:
Velocity is a measure of the amount of work a team can complete in a single iteration. It is calculated by summing the story points of all completed user stories and helps to predict future performance and plan iterations.
- Source: PMBOK 6th Edition, p. 224; PMBOK 7th Edition, p. 109, 190; Agile Practice Guide, p. 61, 64

38.6 On Demand Scheduling:
On Demand Scheduling is an agile approach where work is pulled from a backlog as capacity permits, rather than being planned in advance. This method helps to maintain a steady flow of work and adapt to changes quickly.

- Source: PMBOK 6th Edition, p. 177; Agile Practice Guide, Slide 167

38.7 Capacity:
Capacity refers to the total amount of work that a team can handle in a given period, typically an iteration. It is based on the team's availability, skills, and the complexity of the tasks, helping to plan and allocate work effectively.
- Source: PMBOK 6th Edition, p. 45; PMBOK 7th Edition, p. 55, 66

38.8 Just-in-Time (JIT):
Just-in-Time (JIT) is a production strategy that aims to improve efficiency by reducing waste and producing only what is needed when it is needed. In agile, JIT principles are applied to manage workflow and ensure timely delivery of work items.
- Source: PMBOK 6th Edition, p. 45; PMBOK 7th Edition, p. 52, 103

General Agile Terms

39.1 Nonfunctional Requirement:
Nonfunctional Requirements are criteria that define the operation of a system, as opposed to its specific behaviors. They include requirements related to performance, security, usability, and compliance, ensuring that the system meets broader quality standards.
- Source: PMBOK 6th Edition, p. 148

39.2 Functional Requirement:
Functional Requirements describe the specific behaviors or functions of a system. They outline what the system should do, including its features, capabilities, and interactions with users, ensuring that it meets the users' needs.
- Source: PMBOK 6th Edition, p. 148; PMBOK 7th Edition, p. 152

39.3 Technical Debt:
Technical Debt refers to the implied cost of additional rework caused by choosing an easy, limited solution now instead of using a better approach that would take longer. It includes shortcuts, suboptimal code, and other technical compromises that must be addressed later.
- Source: PMBOK 6th Edition, p. 154; Agile Practice Guide, p. 58

39.4 Cave:
A Cave is a private, quiet space where team members can work without interruptions or distractions. It is designed to support focused, deep work, allowing individuals to concentrate on complex tasks.
- Source: Agile Practice Guide, p. 46

39.5 Story Mapping:
Story Mapping is a visual technique used to arrange user stories into a useful model to understand the functionality of a system. It helps to visualize the user's journey and prioritize features based on their value and necessity.
- Source: PMBOK 6th Edition, p. 190; Agile Practice Guide, p. 58, 155

39.6 Definition of Done:
The Definition of Done is a shared understanding among the team of what it means for work to be complete. It includes criteria that a user story or task must meet to be considered finished, ensuring quality and consistency.
- Source: PMBOK 6th Edition, p. 84; PMBOK 7th Edition, p. 151; Agile Practice Guide, Slide 42

39.7 Definition of Ready:

The Definition of Ready is a set of criteria that a user story or task must meet before the team can start working on it. It ensures that work items are well-defined, understood, and prepared for development, reducing the risk of misunderstandings and rework.
- Source: PMBOK 7th Edition, p. 151; Agile Practice Guide, Slide 42

39.8 Agile Mindset:
The Agile Mindset refers to a way of thinking that emphasizes flexibility, collaboration, continuous improvement, and customer focus. It is characterized by openness to change, a willingness to experiment and learn, and a focus on delivering value.
- Source: PMBOK 6th Edition, p. 8-12; Agile Practice Guide, Slide 19

39.9 Servant Leadership:
Servant Leadership is a leadership philosophy that focuses on serving the team by removing obstacles, facilitating progress, and supporting team members in achieving their goals. This approach emphasizes the leader's role in empowering and developing the team.
- Source: PMBOK 6th Edition, p. 65; PMBOK 7th Edition, p. 17-18; Agile Practice Guide, p. 33-37

 General Agile Terms (Continued)

40.1 Virtual Pairing:
Virtual Pairing involves two team members working together remotely on the same task or problem, often using collaborative tools and technologies. This practice helps to improve code quality, share knowledge, and enhance collaboration.
- Source: Agile Practice Guide, Slide 269

40.2 Fishbowl Window:
A Fishbowl Window is a transparent, real-time view into a team's progress and work status. It involves making project information visible to all stakeholders, fostering transparency and accountability.
- Source: Agile Practice Guide, Slide 269

40.3 Silo:
A Silo is a situation where different departments or groups within an organization do not share information, goals, tools, priorities, and processes with other departments. This can lead to inefficiencies and reduced collaboration.
- Source: PMBOK 6th Edition, p. 47, 59

40.4 "I" Shaped Person:
An "I" Shaped Person is a specialist with deep expertise in a single area but limited skills outside of that domain. This term contrasts with "T" Shaped individuals who have both deep expertise in one area and a broad range of skills across other areas.
- Source: Agile Practice Guide, p. 42

40.5 "T" Shaped Person:
A "T" Shaped Person has deep expertise in one area (the vertical bar of the "T") and a broad range of skills across multiple areas (the horizontal bar of the "T"). This combination allows for specialization while also contributing to other aspects of the project.
- Source: Agile Practice Guide, p. 42

40.6 Acceptance-Test-Driven Development (ATDD):
Acceptance-Test-Driven Development (ATDD) is a development methodology where the team collaborates to write acceptance tests before implementing the functionality. These tests define what is acceptable from the user's perspective and guide development.

- Source: PMBOK 6th Edition, p. 56, 150; [ATDD Information](https://www.digite.com/agile/acceptance-test-driven-development-atdd/)

40.7 Storyboarding:
Storyboarding is a visual technique used to plan and organize work by creating a sequence of illustrations or images. It helps teams to visualize the flow of tasks, identify potential issues, and communicate ideas effectively.
- Source: PMBOK 6th Edition, p. 147; PMBOK 7th Edition, p. 181; Agile Practice Guide

40.8 Minimal Viable Product (MVP):
A Minimal Viable Product (MVP) is the smallest version of a product that can be released to customers to validate assumptions and gather feedback. It includes only the core features necessary to test the product concept.
- Source: PMBOK 6th Edition, p. 41; PMBOK 7th Edition, p. 23

Tools: Data Gathering

41.1 Benchmarking:
Benchmarking is the process of comparing project practices, processes, and performance metrics to those of leading organizations or industry standards. It helps to identify areas for improvement and best practices to adopt.
- Source: PMBOK 6th Edition, p. 144

41.2 Brainstorming:
Brainstorming is a collaborative technique used to generate a large number of ideas or solutions for a given problem. It encourages creativity and free thinking among team members, allowing for a wide range of options to be considered.
- Source: PMBOK 6th Edition, p. 82

41.3 Check Sheets:
Check Sheets are structured forms used to collect and analyze data systematically. They help to identify patterns, trends, and frequencies of specific events or issues, providing valuable insights for quality control.
- Source: PMBOK 6th Edition, p. 252

41.4 Checklists:
Checklists are simple tools that outline the steps or items needed to complete a task or process. They help to ensure that all necessary actions are taken and nothing is overlooked, improving consistency and reliability.
- Source: PMBOK 6th Edition, p. 123

41.5 Focus Groups:
Focus Groups involve gathering a small, diverse group of stakeholders to discuss and provide feedback on specific topics or issues. This technique helps to gain deeper insights into stakeholder needs, preferences, and perceptions.
- Source: PMBOK 6th Edition, p. 144

41.6 Interviews:
Interviews involve one-on-one or small group discussions with stakeholders to gather detailed information, opinions, and insights. This technique helps to understand stakeholder needs, expectations, and concerns.
- Source: PMBOK 6th Edition, p. 144

41.7 Market Research:

Market Research involves gathering and analyzing data about the market, including customer needs, preferences, and behaviors. This information helps to make informed decisions about product development, marketing strategies, and business opportunities.
- Source: PMBOK 6th Edition, p. 144

41.8 Questionnaires and Surveys:
Questionnaires and Surveys are tools used to collect data from a large number of respondents. They help to gather quantitative and qualitative information about stakeholder opinions, preferences, and behaviors.
- Source: PMBOK 6th Edition, p. 144

41.9 Statistical Sampling:
Statistical Sampling involves selecting a representative subset of a population for analysis. This technique helps to make inferences about the entire population based on the sample data, improving decision-making accuracy.
- Source: PMBOK 6th Edition, p. 252

 Tools: Data Analysis

50.1 Alternative Analysis:
Alternative Analysis involves evaluating different options to determine the best course of action for a given situation. This technique helps to identify and compare the pros and cons of each option, supporting informed decision-making.
- Source: PMBOK 6th Edition, p. 137

50.2 Assessment of Other Risk Parameters:
Assessment of Other Risk Parameters involves evaluating additional factors that may influence risk, such as urgency, proximity, and manageability. This comprehensive assessment helps to prioritize risks and develop effective risk responses.
- Source: PMBOK 6th Edition, p. 419

50.3 Assumption and Constraint Analysis:
Assumption and Constraint Analysis involves examining assumptions and constraints to identify potential risks and impacts on the project. This analysis helps to validate assumptions and address constraints to ensure project success.
- Source: PMBOK 6th Edition, p. 220

50.4 Cost of Quality (COQ):
Cost of Quality (COQ) refers to the total cost of ensuring that a product or service meets quality standards. It includes prevention costs, appraisal costs, and failure costs, providing a comprehensive view of the investment needed for quality.
- Source: PMBOK 6th Edition, p. 282

50.5 Cost-Benefit Analysis:
Cost-Benefit Analysis involves comparing the costs and benefits of different options to determine the best course of action. This technique helps to evaluate the economic feasibility of projects and make informed decisions based on value.
- Source: PMBOK 6th Edition, p. 263

50.6 Decision Tree Analysis:
Decision Tree Analysis is a visual tool used to evaluate different decision paths and their potential outcomes. It helps to identify the best course of action by comparing the risks, costs, and benefits of each option.
- Source: PMBOK 6th Edition, p. 435

50.7 Document Analysis:
Document Analysis involves reviewing project documents to gather information and insights. This technique helps to identify patterns, trends, and areas for improvement, supporting better decision-making and project management.
- Source: PMBOK 6th Edition, p. 144

50.8 Earned Value Analysis (EVA):
Earned Value Analysis (EVA) is a technique used to measure project performance and progress. It compares the planned value, earned value, and actual cost to determine if the project is on track, ahead, or behind schedule and budget.
- Source: PMBOK 6th Edition, p. 267

50.9 Influence Diagrams:
Influence Diagrams are visual representations that show the relationships between different variables in a decision-making process. They help to identify the factors that influence outcomes and support better decision-making.
- Source: PMBOK 6th Edition, p. 435

51. Iterative Incremental Analysis:
Iterative Incremental Analysis involves repeatedly refining and improving the project plan based on feedback and new information. This approach helps to adapt to changes and ensure that the project meets its goals and objectives.
- Source: PMBOK 6th Edition, p. 510

 Tools: Data Analysis (Continued)

52. Sensitivity Analysis:
Sensitivity Analysis is a technique used to determine how different values of an independent variable affect a particular dependent variable under a given set of assumptions. It helps to identify which variables have the most impact on project outcomes.
- Source: PMBOK 6th Edition, p. 435

53. Trend Analysis:
Trend Analysis is a technique used to predict future project performance based on historical data. It helps to identify patterns and trends over time, enabling better forecasting and proactive management.
- Source: PMBOK 6th Edition, p. 202

 Tools: Data Representation

54. Affinity Diagrams:
Affinity Diagrams are tools used to organize ideas and data into groups based on their natural relationships. This technique helps to identify themes and patterns, facilitating better understanding and decision-making.
- Source: PMBOK 6th Edition, p. 144

55. Cause and Effect Diagrams:

Cause and Effect Diagrams, also known as Fishbone or Ishikawa diagrams, are used to identify the root causes of a problem. This visual tool helps teams to systematically explore and document potential causes, leading to more effective solutions.
- Source: PMBOK 6th Edition, p. 293, 304

56. Control Charts:
Control Charts are graphical tools used to monitor the stability of a process over time. They display the performance of a process and help to identify any variations from the norm, allowing for corrective actions to be taken before defects occur.
- Source: PMBOK 6th Edition, p. 304

57. Flowcharts:
Flowcharts are visual representations of a process, showing the sequence of steps and the relationships between them. They help to identify inefficiencies, bottlenecks, and opportunities for improvement.
- Source: PMBOK 6th Edition, p. 304

58. Histograms:
Histograms are bar graphs that show the frequency distribution of a set of data. They help to understand the distribution and variability of data, identifying patterns and trends that can inform decision-making.
- Source: PMBOK 6th Edition, p. 293, 304

59. Logical Data Model:
A Logical Data Model is a visual representation of an organization's data, showing the relationships between different data elements. It helps to ensure consistency and accuracy in data management and supports better decision-making.
- Source: PMBOK 6th Edition, p. 144

60. Matrix Diagrams:
Matrix Diagrams are tools used to display the relationships between different elements, such as requirements, tasks, and responsibilities. They help to identify and analyze complex relationships, supporting better project planning and management.
- Source: PMBOK 6th Edition, p. 144

61. Mind Mapping:
Mind Mapping is a visual technique used to capture and organize information around a central concept. It helps to generate ideas, identify connections, and structure information in a way that supports better understanding and creativity.
- Source: PMBOK 6th Edition, p. 144

62. Probability and Impact Matrix:
The Probability and Impact Matrix is a tool used to evaluate and prioritize risks based on their likelihood of occurrence and potential impact on project objectives. It helps in identifying which risks require immediate attention and which can be monitored.
- Source: PMBOK 6th Edition, p. 408

63. Risk Data Quality Assessment:
Risk Data Quality Assessment involves evaluating the quality of the data used in risk analysis. This includes assessing the accuracy, completeness, reliability, and relevance of the data, ensuring that risk assessments are based on solid information.
- Source: PMBOK 6th Edition, p. 419

64. Risk Probability and Impact Assessment:

Risk Probability and Impact Assessment involves evaluating the likelihood and potential consequences of identified risks. This assessment helps to prioritize risks and develop appropriate risk response strategies.
- Source: PMBOK 6th Edition, p. 408

65. Stakeholder Engagement Assessment Matrix:
The Stakeholder Engagement Assessment Matrix is a tool used to assess and manage stakeholder engagement levels. It compares current and desired engagement levels, helping to develop strategies to increase stakeholder support and participation.
- Source: PMBOK 6th Edition, p. 519

 Tools: Communication

66. Active Listening:
Active Listening involves fully concentrating, understanding, responding, and remembering what is being said. It is a critical communication skill that helps to ensure clear and effective communication.
- Source: PMBOK 6th Edition, p. 386

67. Feedback:
Feedback is the process of providing information to a person or group about their performance or behavior. It helps to reinforce positive actions, correct mistakes, and support continuous improvement.
- Source: PMBOK 6th Edition, p. 310

68. Nonverbal Communication:
Nonverbal Communication involves conveying messages without words, through body language, facial expressions, gestures, and tone of voice. It plays a significant role in understanding the full context of communication.
- Source: PMBOK 6th Edition, p. 310

69. Presentation:
A Presentation is a formal way of communicating information to an audience, often using visual aids such as slides. Effective presentations help to convey complex information clearly and engage the audience.
- Source: PMBOK 6th Edition, p. 321

70. Communication Methods:
Communication Methods refer to the various ways of conveying information, such as meetings, emails, reports, and phone calls. Choosing the appropriate method depends on the audience, message, and context.
- Source: PMBOK 6th Edition, p. 368

71. Communication Models:
Communication Models are frameworks that describe how information is transmitted and received. They include components such as sender, message, medium, receiver, and feedback, helping to understand and improve communication processes.
- Source: PMBOK 6th Edition, p. 368

72. Communication Requirements Analysis:
Communication Requirements Analysis involves determining the information needs of project stakeholders and defining the type, format, and frequency of communications. It ensures that stakeholders receive the right information at the right time.
- Source: PMBOK 6th Edition, p. 377

Tools: Interpersonal and Team Skills

73. Conflict Management:
Conflict Management involves identifying and addressing conflicts in a constructive manner. Effective conflict management helps to resolve disagreements, improve relationships, and enhance team performance.
- Source: PMBOK 6th Edition, p. 348

74. Cultural Awareness:
Cultural Awareness involves understanding and respecting cultural differences among project stakeholders. It helps to improve communication, collaboration, and trust within diverse teams.
- Source: PMBOK 6th Edition, p. 310

75. Decision Making:
Decision Making involves choosing the best course of action among alternatives. Effective decision making requires analyzing information, considering options, and making timely, informed choices.
- Source: PMBOK 6th Edition, p. 348

76. Emotional Intelligence:
Emotional Intelligence refers to the ability to recognize and manage one's own emotions and the emotions of others. It includes self-awareness, self-regulation, motivation, empathy, and social skills, supporting better interpersonal relationships and team dynamics.
- Source: PMBOK 6th Edition, p. 310

77. Facilitation:
Facilitation involves guiding and supporting a group to achieve its objectives. It includes planning and conducting meetings, encouraging participation, and managing group dynamics to ensure productive outcomes.
- Source: PMBOK 6th Edition, p. 352

78. Influencing:
Influencing involves persuading and motivating others to support and achieve project goals. Effective influencing requires understanding stakeholder needs, building trust, and communicating benefits.
- Source: PMBOK 6th Edition, p. 311

79. Leadership:
Leadership involves guiding and inspiring a team to achieve its objectives. Effective leaders provide direction, support, and motivation, fostering a positive and productive work environment.
- Source: PMBOK 6th Edition, p. 348

80. Meeting Management:
Meeting Management involves planning, conducting, and following up on meetings to ensure they are productive and achieve their objectives. It includes setting agendas, facilitating discussions, and documenting decisions and actions.
- Source: PMBOK 6th Edition, p. 388

81. Motivation:
Motivation involves encouraging and inspiring individuals to achieve their best performance. It includes understanding individual drivers, setting goals, providing feedback, and recognizing achievements.

- Source: PMBOK 6th Edition, p. 341

82. Negotiation:
Negotiation involves discussing and reaching agreements that satisfy the interests of all parties involved. Effective negotiation requires communication, problem-solving, and conflict resolution skills.
- Source: PMBOK 6th Edition, p. 517

83. Team Building:
Team Building involves activities and exercises designed to improve team cohesion, communication, and collaboration. Effective team building helps to create a positive team environment and enhance performance.
- Source: PMBOK 6th Edition, p. 340